REPUBLIC OF MACEDONIA

Ministry of Agriculture, Forestry and Water Economy

NATIONAL PLAN FOR ORGANIC PRODUCTION 2013 - 2020

органски производ

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ACRONYMS AND ABBREVIATIONS

EU	European Union
FAO	Food and Agriculture Organisation (UN)
IPA	Instrument for Pre-Accession Assistance
IPARD	Instrument for Pre-Accession Assistance Rural Development
MAFWE	Ministry of Agriculture, Forestry and Water Economy
MES	Ministry of Education and Science
RM	Republic of Macedonia
SWOT	Strengths, Weaknesses, Opportunities and Threats analysis
WTO	World Trade Organisation
FOPM	Federation of Organic Producers of Macedonia
IARM	Institute of Accreditation of the Republic of Macedonia
EA	European co-operation for Accreditation
EC	European Commission
AFSARD	Agency for Financial Support of Agriculture and Rural Development
NEA	National Extension Agency
CB	Certification bodies
SAI	State Agricultural Inspectorate
NPOP	National Plan for Organic Production
HMS	Hydro-meteorological systems
GDP	Gross Domestic Product
NGO	Non-governmental organisations
PEP	Public Enterprise for Management of Pastures

The National Plan for Organic Production 2013-2020 is based on statistical data of the Ministry of Agriculture, Forestry and Water Economy, including 2011data, as well as available data from 2012.


Chronological overview of the process of updating the National Plan for Organic Production 2013-2020

Technical assistance by FAO was approved in June 2012, hence a working group was established consisting of representatives of MAFWE and experts in various areas of organic production.

During the period June - August 2012 a series of coordinative meetings were organised for members of the working group for the purpose of identifying required activities to be undertaken, distributing tasks and parts to be covered, as well as developing document structure, reviewing available data and documentation required for updating the Strategy and working on field to collect appropriate data.

The first draft version was completed in September 2012 and in addition to parts developed by experts, the text included an introductory part that covered assessment of the current situation in organic agricultural production in the Republic of Macedonia, as well as review of the Monitoring Report for implementation of the National Strategy for Organic Production 2008-2011.

The second half of September 2012 the first workshop was organized attended by members of the working group as well as other MAFWE staff and other parties involved and interested in organic production (farmers, representatives of farmers associations, universities, etc.). The purpose of this workshop was to share the draft version of the National Plan for Organic Production 2013-2020 with interested parties and to note their opinion in order to improve its contents. At the workshop there were discussions about measures, including comments and opinions, so those considered acceptable were directly included in the text. Upon conclusion of this workshop, experts continued to work and improve parts of the Plan text of which they were assigned with.

In the course of October - December 2012, there was a series of meetings of working group members to align, discuss and complete the draft text of the document.

A public debate took place on 29 January 2013. All comments and suggestions presented at the public debate, as well as the written comments delivered later, were taken into account and integrated in the draft National Plan by mid February 2013.

The draft Plan was proofread and translated into English and, in May 2013, submitted to the FAO Regional Office for Europe and Central Asia. Upon delivery of their comments, both the Macedonian and the English versions were revised by experts.

During August/September 2013, the draft National Plan for Organic Production 2013-2020 was submitted to the Legislation Secretariat, Ministry of Economy, Ministry of Environment and Spatial Planning and Ministry of Finance.

The National Plan for Organic Production 2013-2020 was adopted by the Government of the Republic of Macedonia on the 178th session held on 30 December 2013.

The National Plan for Organic Production 2013-2020 has been divided into two chapters. Chapter 1 covers an analysis of the situation with the set of obligations of MAFWE and of other involved parties, on grounds of SWOT analysis of different agricultural sub-sectors. Chapter 2 lists strategic goals of organic production, sets specific objectives of the policy and identifies measures to be implemented in the course of the given period.

The National Plan for Organic Production 2013-2020 relates to the following parts of organic production:

1. Production
a. plant production
b. animal production
2. Processing
3. Trade
4. Research, education and science
5. Policy, legislation and control
6. Input materials

Experts, also, conducted a SWOT analysis of various parts which were then elaborated into an Action Plan including measures for implementation of the National Plan for Organic Production 2013-2020. Action Plan consists of specific measures for each area, method of implementation of each measure, institution or organisation that will implement the given measures, as well as timeframe and period set for a measure to be applied.

1. Goal and Structure of the Document

1.1. Goal

The National Plan for Organic Production 2013-2020 is an instrument to provide grounds for further development of organic production in the Republic of Macedonia. At the same time this Plan provides for guidelines, activities and measures, including policies to be implemented by MAFWE for the period 2013-2020 for future development of organic production in Macedonia, and serves as basis for planning and implementation of financial support in this sector.

1.2. Document Structure

The National Plan for Organic Production 2013-2020 is divided into two chapters. Chapter 1 covers an analysis of the situation with the set of obligations of MAFWE and of other involved parties, on grounds of SWOT analysis of different agricultural sub-sectors.

Chapter 2 lists strategic goals of organic production, sets specific objectives of the policy and identifies measures to be implemented in the course of the given period.

The rest of the Plan provides plans for proposed measures and funds for its implementation.

2. Current State and Macroeconomic Framework

a) Agricultural Policy

In 2007, the Government of the Republic of Macedonia adopted the National Strategy on Agriculture and Rural Development that set out the principles of policies for support and measures adapted to expected changes in legislation, institutions and control systems. The Strategy defined the strategic goal as grounds for development of the agricultural and rural sector in the Republic of Macedonia for the period 2007-2013 as the following:

"to strengthen the agriculture to become competitive at the integrated regional markets of the European Union and of South-Eastern Europe, by applying measures to enhance efficiency of farming production, processing and placement and by building proper efficient public and private institutions; to improve yields on farm; to ensure that consumers have access to safe and healthy food; to optimise the use of limited land, forests and water resources in manners appropriate for the environment and to build vital rural communities by means of sustainable rural development".

b) Law on Agriculture and Rural Development

The Law on Agriculture and Rural Development was adopted in 2007 as a horizontal act to regulate areas referring to planning and implementing of agricultural and rural development policy, as well as other aspects of agricultural and rural policy.

Amendments and modifications of the Law on Agriculture and Rural Development of 2010 aligned and integrated the principles of programming, monitoring and implementing the Macedonian policy on agriculture and rural development with the European Common Agricultural Policy.

The Law covers provisions on programming and implementing the policy of state aid, as well as provisions on implementation of rural development measures.

c) National Strategy on Organic Agricultural Production (2008-2011)

In 2007 the Government of the Republic of Macedonia adopted the National Strategy on Organic Agricultural Production (2008-2011) and established the grounds to introduce and develop organic agricultural production. This Strategy was supplemented by an Action Plan of measures and activities which by far have already been implemented.

d) Law on Organic Agricultural Production harmonised with the provisions of the EU Council Regulation 834/2007 and the Commission Regulation 889/2008 came in force on and has been applied since 1 January 2010. In addition to the Law on Organic Agricultural Production, a large number of bylaws were also adopted in 2010 to regulate production, processing, labelling organic products, authorisation and certification, as well as control systems. Much of the secondary legislation was translated from the Lists contained in the Commission Regulation 889/2008 including a list of fertilizers and products for soil improvement, a list of plant protection products, a list of non-organic ingredients, a list of cleaning and disinfecting products, a list of fodder raw materials, a list of animal feed supplements and other products used for animal feed and a list of products and substances allowed for use in the process of production of organic processed food.

In addition to this, the implementation of measures for financial support, prescribed in the Programmes of Financial Support in Agriculture and Rural Development, have continued, with funds

provided from the Budget of the Republic of Macedonia referring to financial support for stimulating and developing organic production.

3. Background on the development of organic production in the Republic of Macedonia

1997 - The largest pharmaceutical company in the Republic of Macedonia launched several types of organic teas at the domestic market, made of collected wild plants.
1998 – 4 to 5 farmers from Ohrid, Kumanovo and Strumica began the first organic farming activities in the Republic of Macedonia – they produced food according to the principles of organic production for buyers known in advance.
1999 – an initial expertise was provided to establish draft legal basis for organic production
2000 – The first draft Law on Organic Production was completed towards the end of 2000 in coordination with European experts on organic production.
2001:

- The Government adopted the draft Law on Organic Production and entered it into a parliamentary procedure;
- The first associations of organic producers were established;
- The Project 'Local Initiatives for Organic Production' was launched as part of the Programme for Support of Environmental NGOs.

2002:

- An introductory workshop was organised on the significance of associations of organic production and their unification into a national union;
- Regional cooperation was promoted on organic production through several workshops entitled 'Promotion of Organic Farming on the Balkans' for the period 2002-2005.

2003:

- As a result of the successful completion of the abovementioned environmental project 'Local Initiatives for Organic Production', a decision was made to start a new project fully committed to development of organic production;
- Cross-border cooperation in organic production was initiated with Bulgaria, Croatia, Greece and Switzerland in the field of education and training, study visits, publishing brochures, etc.;
- The initial 13 organic farms underwent inspection.

2004:

- The Parliament adopted the Law on Organic Agricultural Production in April 2004 (Official Gazette 16/2004), which in its turn set the grounds for adoption of 12 bylaws;
- In December 2004, the first bylaw was adopted to establish the Advisory Coordinative Commission on Organic Agriculture. This Commission was assigned with supporting MAFWE in developing and implementing the policy on organic farming and related activities;
- Training on control of organic agricultural production was conducted in line with EU Regulation 2029/91.

2005:

- In March 2005, the second bylaw was adopted as a Programme for stimulating the development of organic agriculture, which was implemented the same year. The programme allocated funds for support of 50 certified organic farmers on grounds of land in transition, costs for control and certification and laboratory analysis;
- Services within the State Agricultural Inspectorate under MAFWE, were trained to monitor and supervise organic production;
- The fourth General Assembly of IFOAM ABM (the Mediterranean branch of IFOAM) and the first International Conference on soil fertility and diversity of Mediterranean agro-

environmental systems were held in Ohrid. 140 participants from 20 Mediterranean countries had an opportunity to exchange experience and to present their current and future activities in the field of organic production;

- The monograph and guidelines on 'Sustainable Use of Medical and Aromatic Herbs in Line with Organic Production Principles' was published and training was organised for public enterprises and authorised services of the national parks;
- 'Balkan Biocert' body for control and certification of organic production from Plovdiv, Bulgaria, opened its office in Skopje.

2006:

- In June 2006 three additional bylaws were adopted to regulate the standards for organic agricultural production (plant production, animal production and processing) (Official Gazette 60/2006);
- Training was organised for National Extension Agency advisors about the processing applications on using the organic programme;
- Initial workshop was organised attended by all interested parties to develop NSAP for the purpose of analysing the situation, identifying the weak and the strong aspects, as well as identifying the needs of the future development of the organic farming sector;
- The 'Biosan' National Union of Associations of Organic Producers was registered.

2007:

- All bylaws deriving from the Law on Organic Agricultural Production were adopted to complete the entire national legislation;
- 'Balkan Biocert' control and certification body was granted authorisation to conduct expert control of organic farming in Macedonia;
- Within the framework of the cooperation of MAFWE and the International Centre for Advanced Agricultural Studies IAMB from Italy and the 'Bio 84' Project, training was conducted for technical experts in support of organic agriculture and rural development in the countries of South-Eastern Europe and the initial 10 guides on organic production were published.

2008:

- Activities started on developing and new Law on Organic Agricultural Production in line with the new EU Regulation 834/2007 and 889/2008;
- The first national event on promotion of organic food 'Organic Production Day' was organised and continued in the upcoming years;
- The Federation of Organic Producers of Macedonia (FOPM) was established to unify and coordinate regional organic producers associations.

2009:

- The new Law on Organic Agricultural Production was adopted (Official Gazette 146/2009);
- MAFWE authorised the second control and certification body 'Pro Cert' to conduct expert control of organic farming in Macedonia.

2010:

- Bylaws arising from the new Law on Organic Agricultural Production were adopted (Official Gazette 162/2010 and 163/2010);
- MAFWE carried out for the first time a National Campaign on promotion of organic agricultural production.

2011:

- For more efficient application, in order to provide opportunities for certain irregularities to be corrected through education of entities and modifications to the penalty policy, the Law on Organic Agricultural Production was modified and amended (Official Gazette 53/2011).

4. Analysis of the organic production development 2007-2012

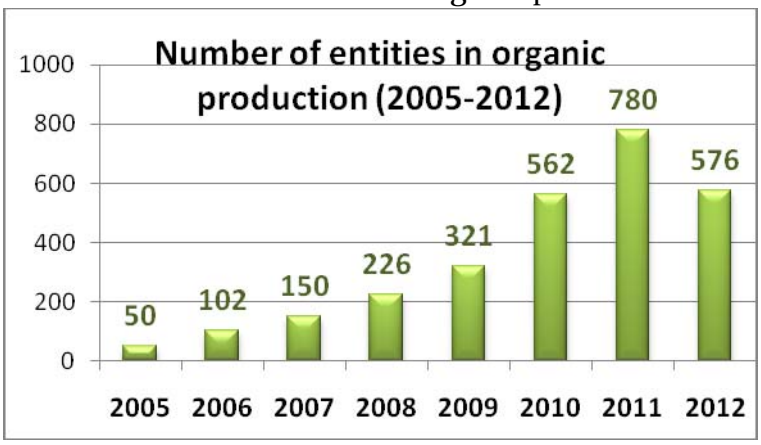
The development of organic production has continuously been on the rise. An increasing number of entities have joined the system of organic production, including extension of production capacities. In the past several years there has been a trend of organic production growth both in arable land certified for organic production (Table 1), as well as in the number of entities (Table 2).

Table 1: Certified arable land

Year	Total certified production land in ha
2006	509,42
2007	714,47
2008	1.029,00
2009	1.373,83
2010	5.228,00
2011	6.580,92
2012	4.663,08

Source:MAFWE, 2013

Chart 1: Number of entities in organic production



Source: MAFWE, 2013

Table 2 presents the situation with plant and animal organic production between 2010 and 2012. It may be noticed that the largest share in plant organic production goes to grains, followed by forage, fruit, grapes and fresh vegetables, whose share in the total organic production is about 4-6% each and oleiferous and industrial cultures whose share is 1% each.

In animal production, the leading sector is sheep breeding (95% of organic production). The share of goat and cattle breeding in animal production is 2-3% each.

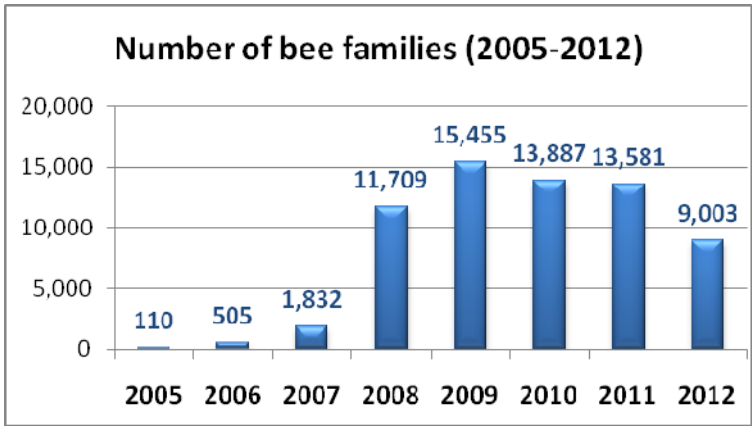
Table 2: Plant and animal organic production (2010, 2011, and 2012)

Plant organic production/ha									
	2010			2011			2012		
type/culture	**transitional**	**organic**	**total**	**transitional**	**organic**	**total**	**transitional**	**organic**	**total**
Grains	2.723,7	276,1	**2.999,8**	3.292,38	378,03	**3.670,41**	1.345,12	899,24	**2.244,36**
Forage	848,9	145,7	**994,6**	724,48	260,76	**985,24**	435,87	552,13	**988**
Industrial	32,1	/	**32,1**	32,73	4,89	**37,62**	17,34	15,19	**32,53**
Oleiferous	40,7	6,7	**47,4**	149,9	9,26	**159,16**	86,33	73,42	**159,75**
Fruits	165,9	168,3	**334,2**	764,25	206,87	**971,12**	424,12	78,78	**502,9**
Grapes	223,6	20,7	**244,3**	11,07	29,67	**40,74**	80,27	46,5	**126,77**
Fresh vegetables	164,2	35,7	**199,9**	192,67	70,54	**263,21**	111,52	46,16	**157,68**
Fallow	306,4	66,3	**372,7**	406,18	47,24	**453,42**	316,45	134,64	**451,09**
Animal organic production/no.									
type of animal	**transitional**	**organic**	**total**	**transitional**	**organic**	**total**	**transitional**	**organic**	**total**
Cattle	2.522	37	**2.559**	3.810	1.411	**5.221**	712	1.981	**2.693**
Sheep	92.523	6.275	**98.798**	63.670	50.234	**113.904**	28.160	45.551	**73.711**
Goats	2.470	578	**3.048**	2.084	3.049	**5.133**	412	2.605	**3.017**

Source: MAFWE, 2013

Chart 2 presents the total number of bee families for the period 2005 – 2012.

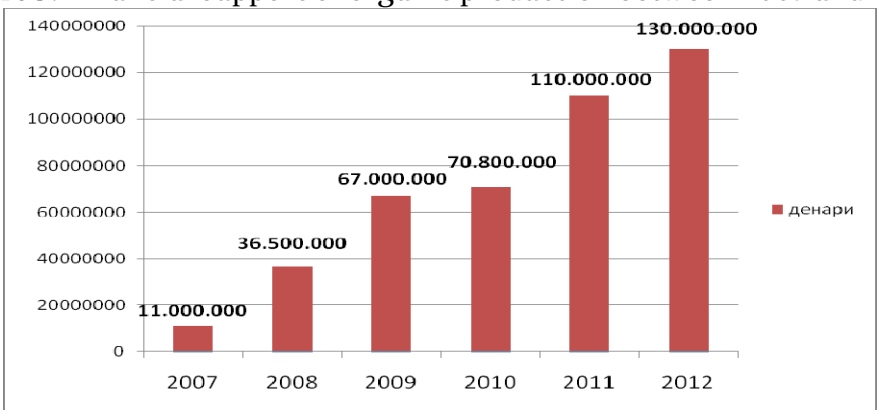
Chart 2: Number of bee families



Source: MAFWE, 2013

As a result of the increase of production capacities and the number of farmers who get involved in the organic production system, as well as the complete implementation of planned funds in the past years, each year the financial support for organic production increases as presented in Chart 3.

Chart 3: Financial support of organic production between 2007 and 2012



Source: MAFWE, 2012

Expert control and certification of organic production was assigned to two control and certification bodies 'Balkan Biocert' and 'Pro Cert', who have been authorised by MAFWE. They both conduct expert control and certification in line with the MKC EN 45011 (General requirements for bodies working with product certification systems). The confirmation that control and certification bodies work in accordance with this standard is provided by the Institute of Accreditation of the Republic of Macedonia (IARM) as a result of the process of accreditation. IARM is a full member of the European co-operation for Accreditation (EA), and in 2012 it signed the Mutual Recognition Agreement of Accreditation Certificates (EA-MLA) with the European co-operation for Accreditation. The Agreement allows for documents issued by Macedonian accredited bodies referring to compliance assessment (testing and calibration laboratories, inspection and certification bodies for product certification) to be recognised in Europe and beyond.

The State Agriculture Inspectorate (SAI) has full control over the operations of the control and certification bodies. Also each entity to apply for financial support in organic production undergoes SAI control.

In order to raise national awareness of organic food value as well as to promote the new national organic label, in the course of 2010, MAFWE began to implement a national campaign to raise the awareness of organic food consumers.

The results of the campaign presented a need for additional awareness raising and information regarding organic agricultural production, therefore the Ministry in cooperation with the Federation of Organic Producers of Macedonia (FOPM), upon the principle of public-private partnership, developed a website to provide additional information and data on producers in order to facilitate the access of consumers to certified organic products (www.organicmacedonia.org.mk).

It has been planned for the campaign to continue in the upcoming period with new media tools, all for the purpose of achieving a satisfactory level of recognition and organic food consumption, and hence increased motivation of organic producers to enhance their production capacities and of traders to increase sales of organic food.

Implementation of measures and activities related to organic agricultural production is covered by the State Agricultural Inspectorate (SAI), the Food and Veterinary Agency (FVA), the

Ministry of Environment and Spatial Planning, the Ministry of Economy, the Institute of Accreditation of RM, the National Extension Agency, the Agency for Financial Support of Agriculture and Rural Development, the agricultural faculties, the PRIs agricultural institutes, the Federation of Organic Producers of Macedonia, and the accredited and authorised bodies for expert control.

The Law on Organic Agricultural Production (Official Gazette of RM 146/09) has foreseen adoption of rulebooks to regulate closely rules and procedures in organic agricultural production. In the course of 2010 bylaws were adopted (Official Gazette of RM 162/10 and 163/10) which additionally regulated the basic principles of organic production, including allowed products to be used, as well as method of management, monitoring and controlling organic agricultural production.

By adopting the secondary legislation harmonisation of the national legislation was achieved in the area of organic production with reference to the European Regulation 834/2007and the European Regulation 889/2008.

The following rulebooks and lists were adopted:

1. Rulebook on the method and the procedure of conducting expert control of organic production (Official Gazette of RM 163/10);
2. Rulebook on the method of granting authorisation to control/certification bodies to conduct expert control and to expert research institutions and other legal entities to conduct analysis and super-analysis in organic agricultural production, as well as required documentation, form, contents and method of record keeping (Official Gazette of RM 163/10);
3. Rulebook on the form, content and colour of the national label for organic products and the national label for organic products in transition (Official Gazette of RM 163/10);
4. Rulebook on the procedures of production of organic processed food (Official Gazette of RM 163/10);
5. Rulebook on the form, contents and method of keeping records and databases on entities and organic seeds and seedlings (Official Gazette of RM 163/10);
6. Rulebook on the form and contents of the annual report (Official Gazette of RM 163/10);
7. Rulebook on the rules and procedures in bee keeping (Official Gazette of RM 163/10);
8. Rulebook on the rules and procedures in plant organic production (Official Gazette of RM 163/10);
9. Rulebook on the procedures of collecting, packing, transporting and storing organic products (Official Gazette of RM 163/10);
10. Rulebook on procedures of breeding, minimal land for accommodation of different types of animals and maximum number of animals per hectare (Official Gazette of RM 162/10);
11. List of fertilizers and soil improvement products (Official Gazette of RM 162/10);
12. List of fodder raw materials (Official Gazette of RM 163/10);
13. List of supplements in animal feed and other substances used in animal nutrition (Official Gazette of RM 162/10);
14. List of cleaning and disinfecting products (Official Gazette of RM 163/10);
15. List of products and substances used in the process of production of organic processed food (Official Gazette of RM 163/10);
16. List of ingredients that were not produced according to organic farming principles (Official Gazette of RM 162/10);
17. List of plant protection products (Official Gazette of RM 163/10).

The adoption of the Law on Amending and Modifying the Law on Organic Agricultural Production in April 2011 (Official Gazette of RM 53/11) planned for additional alignment of the national legal framework with the European Regulations 834/2007 and 889/2008, as well as

integration of rules and procedures prescribed in the European Regulation 1235/2008 referring to import of organic products from third countries, and Regulation 710/2009 to establish detailed rules of organic production of aquaculture animals, by adoption of three rulebooks including Rulebook on rules of breeding water animals, Rulebook on the form, content and template of the certificate that the product, the process of production, the preparation and the placement were in line with the rules and procedures of the Law, as well as on the record keeping by entities, and Rulebook on the form, contents and the template for compliance of production of organic products with the import country, the method of issuing support documentation to accompany the shipment of organic products.

For the purpose of strengthening MAFWE capacities, the first Twinning Project in the area of agriculture on institutional strengthening for implementation of the new legal framework on organic production shall be implemented in the upcoming period, as part of the EU pre-accession assistance for 2009, first component of IPA-TAIB.

5.1. Overview of the implementation of strategic goals of the National Strategy with Action Plan on organic agricultural production (2008-2011):

5.1.1. Main strategic goals of the National Strategy with Action Plan on organic agricultural production (2008-2011)

1. Until 2011, organic arable land will have 2% share in the total arable land in Macedonia;
2. Lands certified for collecting wild plants and fruits will have 5% share in total lands in Macedonia;
3. Until 2011, the majority of consumers in Macedonia should know what organic farming is and domestic demand of organic products should be generated;
4. Until 2011 stable expert links should be established.

5.1.2. Achieving the main strategic goals

1. Until 2011, organic arable land has 1.29% share in the total arable land in Macedonia (6,580.92 ha). Total arable land in Macedonia in 2011 was 511,000 ha.
2. Land certified for collecting wild plants has increased in the past years to 250,000 ha. Having in mind that collecting wild plants and fruits is carried out at pastures, meadows and forests which mainly have not been entered into cadastre records, this number cannot be precisely determined. Also there is no data base or record keeping at national level regarding collecting wild plants and fruits of regular production, total land certified for collecting wild plants and fruits cannot be calculated.

3. A growing number of consumers in Macedonia know what organic farming is and know the value of organic food, but further efforts are necessary in this area. In order to create domestic supply and demand of organic products, it is essential to have continuous information and raising of consumers' awareness by means of proper campaigns, promotions and other information tools.

4. Certain entities, primarily companies, have individually established export links with EU countries, however organised export of organic products is still lacking. This strategic goal will be achieved after the goal of demand and supply at the domestic market will have increased to contribute to increasing the quantity of organic products in Macedonia. Only then activities will be undertaken to establish stable export links with EU and world countries. It is also essential to carry out serious activities to promote organic food from Macedonia by means of international fairs and similar events.

6. SWOT analysis of different sectors

6.1. Plant production

Strengths	Weaknesses
- Favourable agro-environmental conditions to implement organic plant production - existence of large non-polluted areas appropriate for plant production; - Favourable agro-environmental conditions and opportunities for optimal regionalisation for successful organic growing of wide variety of plant cultures (grains, industrial, forage, vegetables, fruits and grapes); - Experience of producers in growing cultures in a traditional - extensive method; - Availability of relatively cheap labour; - Existence of autochthonous varieties of well balanced quality such as domestic varieties of a high genetic potential for yields; - Regions with hydro-ameliorative systems for irrigation and possibility for growing two cultures annually; - Opportunity for application of appropriate crop rotation systems in plant production in regions with irrigation possibilities; - Traditional production practice and skills in separate regions for given types and methods of production of crops; - Regions with natural springs with thermal waters that decrease the price of early vegetable products (Kocani, Strumica); - Regions with established environmental infrastructural barriers of forest varieties, to separate conventional from organic arable land.	- Arable land in arid areas lacking irrigation sources - risk of decreased yields and narrow choice of cultures to be successfully adapted into crop rotation schemes in such regions; - Narrow assortment of supply of input materials for plant production at the domestic market, as well as seeds, seedlings and pesticides allowed for application in organic plant production; - Insufficient and discontinued promotion of advantages of organic production regarding environmental and human health protection; - Inappropriate application of agro-technical measures (cultivation, crop rotation, sewing periods, fertilizing, irrigation, harvest) due to outdated machinery or insufficient education of direct primary producers; - Inappropriate use of land (setting up wide fields including destruction of former protection zones, natural elements and bordering fields) and growing practice (use of monocultures, limited use of organic matters, ploughing on steep grounds, lack of soil cultivation machinery). - Insufficiently specialised groups of producers of different varieties of crops or groups of similar crops, including lack of proper organisation of organic producers both regarding successful planning, organisation and application of production , as well as promotion and marketing; - Small number of processing and storing capacities specialised and certified for secondary and final processing and packing of organic plant products; - Insufficient development of rural tourism with capacities to offer organic products; - Difficulties in changing the mindset of producers and failure to accept organic method of production.
Opportunities	**Threats**
- Create conditions to increase and maintain a stable number of citizens in rural areas; - Revitalise abandoned regions with potential for development of organic production; - Optimal method of combining environmental needs	- Low demand and consumption of organic plant products at the domestic market due to higher prices of organic products; - Failure to meet market and consumer

and profit; - Protection and renewal of soil fertility and good quality and protection from soil loss factors; - Production of specific cultures of competitive quality and market potential (sour cherry, aromatic spices and medicinal herbs, etc.); - Increase of IPARD funds use by primary producers, by increasing the degree of information and education; - Rational use of comparative advantages of favourable agro-environmental components for more competitive organic plant production.	requirements regarding quality, quantity and continuous supply of organic plant products; - Emerging of more competitive imported products at the market; - Insufficient quantities of organic plant products to meet export contingents; - Shortage of quality irrigation water in some regions due to irrational and inappropriate use of irrigation water from HMSs; - Weather disasters and negative impact from global warming; - Economic crisis.

The SWOT analysis of plant production provides for a general conclusion of presence of many strengths, but also a significant number of weaknesses, moderate degree of threats and still a large number of opportunities that have failed to be used for more intensive and more successful organic plant production.

A particular strength for organising organic plant production is the existence of favourable agro-environmental conditions in given regions of the country with long tradition of growing certain varieties of crops.

A great advantage for organising and implementing organic production is the existence of autochthonous varieties of crops since they are traditionally grown in selected regions and are best adapted and steady for obtaining stable yields and quality in the area where they are grown. It is very important that large presence of such varieties significantly decreases risk of production failure due to agro-climate conditions.

Growing awareness in many categories of citizens and continuous increase in the demand of organic food contribute to inevitable increase of the supply to certified plant products of organic origin. In the past years, consumers were not offered sufficient quantities of officially certified organic plant products, both fresh as well as processed.

There are significant weaknesses to be noted and largely remain a barrier to more intensive development of organic plant production. The first weakness worth to be mentioned is the low supply of input materials for plant production at the domestic market, including seeds and seedlings and protection products allowed for application in organic plant production.

Insufficient and discontinued promotion of environmental advantages of organic production and organic plant products to human health still takes a significant place in the slow progress of organic farming.

Insufficient education and organisation of organic farmers is yet another barrier to organic plant production development both at local and national level.

The low degree of IPARD funds use largely contributes to a small number of processing and storing capacities specialised and certified for secondary and final processing and packing of organic plant products.

Another weak link in the chain of weaknesses to contribute to slow development of organic farming in Macedonia is almost non-existent tourism capacities to offer organic food on their menus as well as insufficiently developed rural tourism.

Although significantly fewer compared to strengths and weaknesses, threats are evident and present certain risks to intensifying the development of organic production in the Republic of Macedonia. According to priorities the following are most significant:

1. Weather disasters and negative impacts of global warming;
2. Failure to meet market and consumer demands regarding quality, quantity and continuous supply of organic plant products;
3. Insufficient quantities of organic plant products to meet quotas interesting for export traders.

Regardless of the level of fulfilment of certain conditions and criteria to achieve certain goals, new and unused opportunities for more intensive, more efficient and more rational achievements may still be found.

More intensive development of organic production will logically bring expectations of multiplied possibilities for maintaining a stable number of citizens in and more rapid development of rural areas. This logic derives from the fact that rural areas are best for developing organic farming, taken from environmental, agro-technical as well as sociological aspect.

Production of specific cultures of competitive quality and of market potential (nuts, berries, aromatic spices and medicinal herbs, etc.), holds a large potential and opportunities to achieving comparative advantage and larger degree of competitiveness of organic plant products. The main reasons for realistic expectations from the stated opportunities are the following:

- Favourable geographic location of our country;
- Diverse landscape including many fertile river valleys, flat plains and mountain slopes;
- Various soil types;
- Regions with low degree of resource pollution (soil, water and air);
- High level of biodiversity of the flora.

6.2. Education and science

Strengths	Weaknesses
- Certain number of secondary and university education and research institutions in the country, teaching organic production curricula; - In 2004 Government adopted a programme for development of education in the framework of international education standards for knowledge and skills according to lifelong learning principles; - Centres on applied research and continuous education in the field of organic production have been established at the Agricultural Faculty in Stip and the Faculty of Agricultural Science and Food in Skopje; - Accredited annual second cycle studies are available at the Agricultural Institute in Skopje in the field of plant production – integral production and plant production – organic production; - Network of advisors distributed throughout the country is available, whose task is to be in daily contact with organic farmers;	- Insufficient coverage of organic production in the curricula at secondary schools and universities; - Inappropriately established education standards compatible with EU member states and inappropriately designed study programmes; - Insufficient exchange of information and cooperation with education institutions from other countries; - Low degree of implementation of informal education by vocational schools, employment centres and other related institutions in each of the agricultural areas in the country; - Low number of applicative projects and research at certified organic farms and processing plants, as well as at accredited laboratories; - Lack of detailed current monitoring of the environmental situation and data on agro-environmental issues (soil, water, biodiversity) regarding arable land at regional and national level; - Very small percentage of the GDP is intended for agricultural research and education;

- Accredited module for organic production is available as second cycle (master) studies at the Department of Plant Production of the Agricultural Faculty in Stip; - Agricultural secondary schools and faculties have available arable land, machinery and expert research staff to carry out organic production and applicative field research; - Expert and infrastructure capacities are available to conduct research in the field of organic farming; - MAFWE has published guides/brochures for organic production for about ten important crops; - Researchers and experts from our country have participated at international conferences, symposia, workshops and other events presenting their works in the field of organic production; - Gene-banks exist in research institutions to maintain seeds of a large number of plant varieties including traditional autochthonous varieties; - Several studies and strategies have been developed for national and regional development of organic farming and rural areas; - Projects have been completed or are ongoing in the field of organic production.	- Lack of education material in the field of organic production and lack of exchange of information within the region; - Partial use of the research potential in the country due to irregular and insufficient funding of research projects; - Most farmers have scarce or no knowledge at all about topics and practice in the area of agro-environment and organic agricultural production.
Opportunities	**Threats**
- Incorporate new modules in the field of organic production and rural development for achieving socio-economic benefits; - Apply new scientific developments in practice in the field of bio-technology, computer technology and digital communication; - Increase in the level of application of curricula covering global economy, processing industry, storage, packing, transportation and placement, as well as other significant disciplines related to organic production; - Educate expert staff in the field of organic agricultural production and protection of environment for providing positive approach towards organic production and rural development; - Opportunities to apply for international and national projects at various institutions and organisations related to organic production;	- Declined interest for professions related to agriculture; - Lagging behind in the application of new methods and technologies for organising and implementing organic agricultural production; - Brain drain of high quality expert staff abroad; - Lack of current and long-term analysis on climate change impact to agricultural production; - Lack of results in the field of research and application of new modern technologies in the field of organic production within the agro-environmental conditions in the Republic of Macedonia; - Ineffective, poor quality partnership and transfer of agricultural technology and knowledge among high education and research institutions on one hand and the economy on the other. - Limited effect from advisory and consultant

- More intensive use of university capacities in the area of agro-economy for farmers' training; - Promotion of NGOs dealing with organic production; - Establish centres for training and research, including practical work on farm and promotion of organic farmers; - Conduct trainings and courses for farmers in order to acquire skills to apply for EU pre-accession funds; - Develop programmes for licensing organic production advisors.	services from advisors with a limited scope of services, use of insufficiently diversified methods and coverage of limited target groups.

The SWOT analysis of education and science regarding its impact on organic plant production development may draw a conclusion of a significant progress in implementation of contents and activities in education and science related to organic production.

Many education and research institutions offer curricula covering organic production which may be considered to be a strong point in organic plant production development.

As the years pass, significant progress can be seen regarding national researchers and experts presenting their works at international conferences, symposia, workshops and other events in the field of organic production.

A step further in improving agriculture, both conventional and organic, is the strengthened practice of advisory and consultative, as well as laboratory and expert services.

Most dominant weaknesses in education and science regarding organic production are the following:

1. Inappropriately established education standards compatible with EU member states and inappropriately designed study programmes. This conclusion is based on the lack of interdisciplinary studies which are significant for sectors relevant to EU policies (principles of cross-compliance, significance of environment and rural development).

2. Lack of results in the area of research and application of modern technologies in organic production regarding agro-environmental conditions in the Republic of Macedonia.

There is an insignificant number of applied field and laboratory research with scientifically confirmed results in the area of organic plant production within the agropedoclimatic conditions in the Republic of Macedonia.

Due to insufficient and discontinued financing of science and research projects, the low degree of employment of the research potential in the country is evident, hence the brain drain of young and capable research staff abroad.

Incorporating new modules in the field of organic production and rural development for achieving socio-economic benefits may be considered existing relevant opportunity for greater contribution of education and science in developing and improving organic production in our country.

This opportunity should be taken to overcome the weakness of inappropriately established education standards compatible with EU member states and inappropriately designed study programmes.

Also it is essential to increase the intensity and the continuity of education expert staff and farmers on organic farming and environmental protection. This type of activity is important to ensure positive approach to organic farming and rural development, as well as to increase the degree of new knowledge in this area.

Activities could be implemented in different ways including informal education at vocational centres, employment centres, applicative pilot-projects on farms, seminars, courses and workshops organised by advisory services, as well as projects of international organisations, NGOs and similar institutions.

By applying some of the above activities, an opportunity will be allowed, among other things, to increase the degree of employment of university capacities in the field of agro-economy, including training for farmers, expert staff and employees in the public advisory service.

Threats in education and science, similarly to other analysed areas, present a significant risk to successful application of education and research activities to contribute to popularisation and modernisation of organic plant production.

According to priorities, the largest threat and risk is the lack of results in the field of research and application of modern technologies in organic production within the agro-environmental conditions in the Republic of Macedonia.

In other words, there is a low number of applied researches of different crops in various regions grown according to the principles of organic plant production.

The risk of lack of education material in the field of organic production is not less important, including the low level of exchange of quality and relevant information with the surrounding regions.

In long-terms, the greatest risk is the growing brain drain of young and high-quality expert and research staff abroad. Capable and educated young people apply for positions and jobs at international highly developed research institutions and leading companies and corporations. Those who are the best meet required criteria imposed by international entities and leave the country forever.

6.3. Trade

Strengths	Weaknesses
- Insatiable demand for imported goods on the market; - Existing interest of MAFWE to promote organic products; - General information to consumers about the meaning of the term 'organic product'; - Existing support/encouragement for traders of organic produce.	- Insufficient information to consumers about the benefit of organic agricultural products; - Existing barriers for retail sale of organic products; - Insufficient information to traders about subsidies in place for sale of organic products; - Low consumer power for purchasing more expensive products; - Insufficiently developed domestic market and lack of specialised stores for organic food, particularly in small towns; - Insufficient quantities and poorly organised supply of Macedonian organic products for export; - Insufficient activities for promotion of organic production and raising consumers awareness; - Insufficient quantities of organic products for continuous supply to supermarkets; - Limited seasonal supply of fresh organic products; - Insufficient quantities for organic product supply at domestic and export markets;

	- Lack of coordination of producers for joint placement and supply at domestic and export markets; - Lack of recognition of the national certificate both in the EU as well as at the regional market; - Insufficiently developed domestic market for organic products.
Opportunities	**Threats**
- Growing demand for organic products at the domestic, regional and global market; - Establish bilateral relations for mutual recognition of certificates with countries in the region and in the EU; - Development of the production of certain strategic crops with a potential for successful production and export; - Improving the research of the domestic and the international market for organic products; - Development of the domestic market by designing special measures; - Increasing the trade with countries in the region and in the EU.	- Insufficiently clear and developed strategy for support of trade/consumption of organic products; - Low demand for organic products at the domestic market and weak opportunities for access to international markets; - Inappropriate pricing policy of organic producers; - Lack of interest/encouragement of traders for supply of organic products; - Low interest of consumers due to insufficient information; - Traders avoid working with organic products due to additional and non-expert controls by inspection services; - Insufficient involvement of the state in promotion of organic products; - Insufficient support for traders of organic products; - Insufficiently clear procedures prescribed by AFSARD regarding payment and rules for use of the support; - Declined consumer power; - Lack of identification and strategy for development of production of strategic cultures to be offered at export markets.

In principle trade of organic products is a complex problem viewed from different aspects. Firstly, organic production covers almost all sub-sectors in agriculture and in the food industry, both of which are huge sectors to be controlled and developed.

Even though the past period saw emerging of a large number of organic products, primarily processed foods, this increase in trade was due to the activity of a small number of companies who had enthusiasm to access the market. In essence, many organic producers who supplied the market find themselves in an unenviable position regarding successful product marketing.

Low consumers power and dramatic increase of prices of products imposed by the retail network, including high trade margins, make organic products available only to a few categories of consumers. This of course refers to the supply of processed products only, while supply of fresh products is lacking completely.

Several factors impact this situation. The first is the seasonal character of agricultural production in Macedonia, which contributes to a situation where during harvest periods producers find themselves with great quantities of products the market fails to absorb, and they are also faced with the large competition of conventional products. Second is the inability of the processing

sector to absorb the quantities due to lack of clear market opportunities for sale of final products, as well as lack of information on how to get to a final organic product, including inability to reach a consensus with producers on the selling price. It should also be mentioned that there is a natural tendency of the processing industry to buy raw materials at low prices, as well as a tendency of producers to sell their products at unrealistic high prices. The situation usually results in discontent of processing entities that fail to market organic products properly and therefore earn sufficiently in cases where they had to buy raw materials at high prices. It may also result in discontent of producers who, due to lack of proper products placement, are often forced to sell products at same prices as conventional agricultural products.

Certain activities to popularise organic production have contributed to general knowledge in consumers on benefits from this type of food, although additional efforts are needed for real recognition of organic production in terms of environmental protection and use of organic products. Organic production includes health, environmental and social aspects. Generally consumers in Macedonia are informed about the impact organic food has on their health and recognise it only in this aspect, however they are not familiar with the other aspects of organic food. This creates a situation where suppliers and consumers take into account only some of the realistic sale arguments, which contributes to a dramatic decline of the population ready to buy an organic product due to a given argument or to spend more of their money to buy organic products.

Direct sale of organic products from farms or at green markets is almost non-existent although it is considered to be a significant sale channel in all developed markets. The habits of buying organic products, according to the current market structure in Macedonia (producers, merchants, dealers, wholesalers and retailers) are directed to supermarkets only, which excludes the habit of consumers to buy products directly from farms.

The current financial support of organic production allows for development of all segments of organic production and supply of wide scope of fresh and processed organic products. All of this contributes to domestic market development as a priority of the development activities.

However, having in mind the current economic situation and low recognition and value added to organic products, there are serious limitations of quantities to be absorbed by the domestic market.

More efforts should be made on developing the export potential, but the current support system contributes none to this. First it is essential to select strategic crops that can be produced in sufficient quantities in Macedonia by competitive prices. When these are identified, it is necessary to set up additional measures to stimulate production and to consolidate this offer, in order to reach quantities interesting for export. Only then we may have a serious approach towards offering these quantities at export markets and using export potential. When selecting strategic cultures, it is important to select crops that are in demand at foreign markets and which are famous as Macedonian products due to the climate. Selection of crops that are not traditionally grown in Macedonia and that require great efforts in terms of education and adaptation of producers to new production methods would only give results much later.

6. 4. Input materials

Strengths	Weaknesses
- Relatively easy to register input materials; - Low level of use of inputs derived from regular production and relatively easy transition to organic inputs.	- Lack of interest of import traders to supply allowed inputs; - Significant cost for entities interested to get registered as importers of input materials; - Lack of information to producers on avalability of allowed farming products ; - Lack of availability of allowed products on the Macedonian market; - Lack of association forms of producers to organise joint supply of inputs; - Lack of support for producers to use allowed products; - Insufficient knowledge and expertise of expert staff and services about possibilities and methods of use of allowed inputs; - Strong supply of and competition with conventional input materials.
Opportunities	**Threats**
- Establish a system of support for and promotion of use of allowed inputs; - Use NEA, research and education institutions as a resource for promotion of allowed inputs.	- Lack of a clear strategy about the need to support availability of allowed inputs; - Inappropriate price policy of importers of input materials; - Increased costs due to using of allowed inputs; - Lack of interest/encouragement of traders to supply allowed inputs; - Use of allowed inputs largely requires higher degree of knowledge and education of producers; - Being a small market, producers of allowed farming products may avoid Macedonia for setting up partner links; - Lack of appropriate expertise for transfer of knowledge and method of application of allowed inputs; - Lack of experience and knowledge in the expert community and in research and education institutions for using new allowed products.

A major reason for the slow organic production development in Macedonia is the lack of proper protection products allowed in organic production. This also contributes to the trend of certifying crops with less requirements regarding protection (walnuts, hazelnuts, Japanese kaki fruits, pomegranates, etc.).

On the other hand there is a problem in placing products on markets, since consumers are mostly interested in buying fresh vegetables and fruits, whose production requires intensive use of protection products. An additional burden is the fact that the farmers themselves are not informed about protection products and fertilizers allowed in organic production, and there is a leading opinion that organic production forbids use of any protection products.

Companies at the Macedonian market that offer protection products used in regular farming have no interest of selling protection products allowed in organic production. They

already have established sale channels that allow good profit. To offer products allowed in organic farming would be additional investment in education of staff working in the regional retail network, as well as promotion of new products, as well as investment in informing the consumers about the use and the benefits from using such products. Taking into account the small number of organic producers, larger distributers of protection products simply do not consider supplying products allowed in organic production to be a profitable investment.

In addition, protection products allowed in organic production require higher degree of education of agricultural producers, since they are mainly bio-products with specific instructions for use. This further implies that both sellers and importers of these products should successfully transfer additional information to farmers and allow for user support. This is certainly an additional investment which currently seems completely unjustified to importers.

Still certain companies, mainly micro-enterprises, having more intensive entrepreneurship spirit do have a small offer of allowed products in their attempts to infiltrate the market. In circumstances of very limited opportunities for promotion and huge competition from large companies offering conventional products, the success of the small companies is generally sporadic and localised.

MAFWE needs to set up procedures for registration and authorisation of trade and application of plant protection products in organic farming. Also the Ministry should be more actively involved in supporting and presenting the offer of products allowed in organic production, as well as in informing farmers about the availability of the products. NEA should play a significant role in promoting the products allowed in organic farming.

A model to be used in increasing the level of information to farmers about availability of products allowed in organic production is publishing lists of allowed products available in Macedonia and/or their distribution in the regional offices to allow access for interested farmers to information when applying for financial support.

6.5. Processing of organic products

Strengths	Weaknesses
- Developed and export oriented processing sector; - Interest of processing entities for value added production, including organic products; - Availability of relatively cheap seasonal labour.	- Insufficient quantities of certified raw material for processing entities; - Processing entities are not involved in planning the primary production and there is no practice of contractual farming; - Lack of certified/allowed products for processing organic products; - Lack of knowledge of processing technology of organic products; - Ignorance of processing entities about the existing support for organic product processing.
Opportunities	**Threats**
- Growing demand for organic products/processed foods on the domestic, the regional and the global market; - The processing sector can absorb the surplus of fresh organic products in periods of increased supply.	- Lack of information to processing entities about access to organic product markets; - Insufficient involvement of the state in promotion of organic processed products; - Insufficient support for processing organic products.

Macedonia has a developed sector of processing fruits and vegetables. However, only a small number of processing entities are involved or are considering to get involved in organic production. The reason for this being the lack of information to processing entities to recognise opportunities for both production and placement of organic processed products at the market. In addition, most processors are involved in processing of products being sold at international markets as low quality and low price products. Only a few actually produce processed foods of a certain quality to which organic certification would add value.

Despite growing trends for organic products, the supply of processed organic products is almost insignificant.

A reason for this situation is the lack of information passed to the processing sector about existing raw materials that can be processed. Additional reason for this may be the fact that when processing entities get interested for organic products, organic farmers raise the prices enormously in spite of the subsidies they receive. This further discourages the processing entities.

Regarding information to processing entities about technology of processing and products allowed in organic product processing, there is lack thereof in general, which additionally burdens them in their decisions to get oriented to certifying their production.

The processing sector could absorb surpluses of organic products in periods of large supply and thereby solve some problems related to hyper-production and seasonal character of production. However in order for this to work, it is essential to plan production of raw material to be later processed. Unfortunately, in Macedonia there is no tradition of contractual farming between primary producers and processing plants, but contrary to this, business is done opportunistically, each hoping the other one will find themselves in unenviable situation to be forced to sell the products by low prices or to buy the products by high prices.

6.6. Animal production

Strengths	Weaknesses
- Favourable preconditions, non-polluted natural meadows and pastures; - Traditional farming production, very close to organic production, for sheep, goats and cattle; - Farmers with long experience and tradition of animal breeding; - Established system for animal marking; - State subsidies for organic animal production; - Relatively cheap labour available; - Entry of organic animal products in market chains.	- Insufficient information on organic animal production at all levels; - Limited availability of allowed input materials; - Lack of concentrated protein food for younger animals as well as for production categories of animals; - Lack of arable land for production of crops used for animal feed near farms; - Insufficient proportion of number of animals per unit and land for production of animal feed; - Scarce education of farmers on production of animal feed; - Lack of proper facilities for organic production of pigs and poultry; - Lack of a marking system for poultry; - Ambiguous contracts issued by the Public Enterprise for Pastures, which contain no precise data regarding lands and locations allowed for reaping and grazing; - Usurpation of pastures by some farmers; - Foresting of existing pastures, leaving some village areas where animals are kept without enough pastures for grazing; - Lack of current monitoring of the situation with

	pastures, their size or their value; - Lack of linkage of farming entities as potential for rural tourism and travel agencies, in order to enhance tourism offers.
Opportunities	**Threats**
- Use of favourable climate and soil conditions; - Traditional and extensive animal farming in certain regions in RM allow for easy transition from regular (conventional) to organic animal production; - Use of existing facilities and other capacities for organic animal farming without any large investments; - Increased interest for organic animal production in Macedonia; - Revitalisation of abandoned facilities with potential for developing organic animal farming; - Availability of organic milk allows for opportunities for the dairy industry to add value to dairy products; - The Rural Development Strategy favours development of organic farm production; - Favourable conditions for development of eco-tourism.	- Slow development of organic animal farming; - Possibility of larger competition at foreign organic markets; - Increased costs for inputs and services, for control and certification; - Weak financial power and insufficient capacities of the processing industry for production of final organic products; - Decrease of subsidies for organic animal production in comparison to subsidies for conventional production.

The strongest point of organic animal farming, as seen from the SWOT analysis, is the natural conditions at the territory of RM, including the spacious meadows and pastures, mostly located in areas free of pollution of any kind, with grasses, bushes and honey plants, rich biodiversity as well as varieties and nutritious value. Traditional knowledge and skills of farmers, as well as relatively cheap labour available in the country are a strong encouragement for even further development of organic animal production. In addition to natural conditions, the measures and activities undertaken by the state should also be considered, including subsidies for animal farming entities, established system of animal marking, accreditation of control/certification bodies, as well as coordinated action of the non-governmental sector. It should be also mentioned that market chains are interested in selling domestic organic products of animal origin.

On the other hand, insufficient education and information to most stakeholders involved in organic production is a problem that hinders quality growth of this type of production. Limited availability of inputs, primarily protein animal feed, is a result of insufficient number of animals compared to the size of arable land, primarily located in the mountainous regions of the country. The lack of certified producers of organic animal feed only intensifies the problem. Also the lack of proper available capacities for pigs and poultry farming according to organic principles, contributes to lowest results precisely in these two sectors.

The lack of capacities in the Public Enterprise Pastures, which manages all pastures in RM, results in the lack of clear concept regarding contracts with farmers. Failure to clearly identify the borderlines of allocated pastures within the contracts between the Enterprise and users of pastures results in some problems upon the separation of organic certified and conventional herds. This is a reoccurring problem in bee keeping as well.

In we take into account strengths of this farming sector and if we improve weaknesses, we may come to a conclusion that traditional animal farming could be strong link to be used in favour of rural tourism, allowing for revitalisation of depopulated rural areas and animating other economic activates therein.

Threats faced by organic animal production are revealed as further decline of the numbers of animals and degradation of pastures, resulting in decline of production and increased import dependency of RM.

Increasingly evident year by year, global warming is yet another negative factor that impacts the development of organic breeding of domestic animals, including bees.

6.7. Control and certification

Strengths	Weaknesses
- Established accredited control/certification bodies for organic production in RM; - Established accredited laboratories that perform analysis of organic production; - Established system of control by MAFWE through SAI; - Additional control of organic entities by AFSARD; - Opportunity for certificates including accreditation for particular needs of buyers/exporters, made available by cooperation of national control/certification bodies and European accredited bodies for organic production.	- Small number of accredited control/certification bodies in Macedonia, resulting in low competition; - Problems with certification of findings from Macedonian laboratories by EU clients; - Insufficiently trained SAI representatives; - Small and unattractive market for organic certification for European accredited bodies; - Services of EU accredited bodies are too expensive for producers.
Opportunities	**Threats**
- Establish new control/certification bodies and enhance competition; - Accredit more laboratories to conduct analysis of organic products; - Train representatives of state control services.	- Slow development of organic production; - Discouraged producers due to decline of organic production growth; - Decreased opportunities for export of organic products in EU and other countries.

Accredited control/certification bodies, laboratories accredited to conduct analysis of soil, plant material and products of organic origin, as well as the established control system of AFSARD, provide for strict control of organic products and gain the trust of consumers on the Macedonian market. However, export oriented producers are faced with problems arising from non-recognition of findings from national laboratories, including non-recognition of certificates

issued by domestic accredited control/certification bodies abroad. The Mutual Recognition Agreement of Accreditation Certificates (EA-MLA) with the European co-operation for Accreditation, signed in 2012, is expected to facilitate export of organic products from Macedonia, including recognition of national certificates in Europe and beyond.

Registration of new accredited control/certification bodies and having them establish cooperation with certification bodies in Europe and in the world, remains to be an opportunity arising from the growing number of farms that decide to get certified as organic food producers. Accrediting new laboratories will open doors for improved control of producers.

6.8. Policy

Strengths	Weaknesses
- Monitoring of organic production in RM has been established; - Strategy on organic production has been developed; - Organic producers are supported by increased subsidies compared to regular producers; - The state supports the non-governmental sector to act in favour of development and improvement of conditions for organic farming in RM; - The state promotes organic production and provides information to farmers; - Government representatives participate at events in favour of promotion of organic production; - Free advisory services are available by NEA; - Organic producers are given advantage when applying for financial support from the Programme for Support of Agriculture and Rural Development; - Media cover the issues of organic production; - Institutional support for organised - associated farmers; - Favourable credit lines for organic producers available from banks; - The Government promoted the Strategy for Adult Education in 2006 to serve as basis for informal and lifelong learning in the field of agriculture.	- Inconsistency of deadlines for payment of subsidies; - Insufficient financial support for the NGO sector; - Limited advisory services for organising and implementing organic plant production; - Insufficient organic farming information to employees in Regional Offices of MAFWE; - Some media presenting incorrect/counterproductive information; - Primary producers fail to sufficiently use IPARD funds due to great administrative barriers and insufficient information and training to apply for pre-accession funds; - Producers who obtain certification have no obligation to remain certified so there is a problem of great rotation of producers for the purpose of using subsidies.
Opportunities	**Threats**
- Develop a new model of subsidies allocation, to allow for proper and long-term support for farmers; - Increased investments in organic production; - Use of programmes for development of agriculture; - Introduce 5 year contracts for using subsidies for organic production; - Implement project in favour of development of organic production;	- Support of non-traditional varieties of plants and breeds of animals which are non-productive; - Long-term loss of productive location to non-profitable production; - Slow development of organic farming; - Increased administrative duties, without proper advisory support; - Discouraged producers resulting in decline of organic production growth;

- Train advisory services and license advisors to provide quality information to organic producers; - Speed up organic production growth.	- Ambiguous and insufficiently elaborated strategy for support of organic products; - Inappropriate pricing policy of primary organic products by producers; - Insufficiently clear and transparent conduct of the Payment Agency regarding payment and rules for using support.

The monitoring of the situation with organic production provides information about the level of implementation of the national strategy on organic production. It can be seen that the increase of subsidies the state has organised to stimulate producers, including the support of the non-governmental sector in implementation of projects related to organic production development, involvement of government representatives at events related to this sector (free advisory services by NEA and advantage given to certified producers when applying for assistance from the programme for agriculture and rural development) are strengths that contribute to organic production development. Public campaigns through various media are beneficial to the development.

The accredited laboratories in the country, which conduct analysis of the content and quality of agricultural products pursuant to recognised research methods and standards, contribute to simplification of the procedure for organic product analysis. They also contribute to significant reduction of costs for certification and authorisation of organic products.

Complex administrative procedures for applying for financial support, as well as the large number of errors occurring in the process of payment, are some reasons for discouragement of producers and slowing down of the organic production growth.

Also decreased funds for the NGO sector present an obstacle for enhanced promotion of this type of production.

Fragmentation of large farming parcels that could be used for large scale agricultural production for export is a factor that contributes to lack of profitability in purchasing and use of sophisticated machinery for more competitive production.

An opportunity remains for improved organisation and support of producer groups for contract farming for export. Additional training of the staff at MAFWE Regional Offices and at NEA would result in improved services to producers, allowing for greater absorption of financial support from national and European funds intended for development of this sector.

Fragmentation of large farming parcels on one hand is good for small farmers who produce animal feed for their animals, however from an economic aspect, it is a direct threat that leads to more expensive production.

6.9. Legislation

Strengths	Weaknesses
- Law on Organic Agricultural Production, generally harmonised with the European legislation has been adopted; - Rulebooks have been adopted to regulate areas that cannot be regulated by the Law; - The national label for organic or products in transition has been designed.	- There are sections in the Law which are ambiguous and leave room for different interpretation; - Failure to draft all rulebooks to regulate certain areas from the Law; - Complex procedures for import of organic protection products.

Opportunities	Threats
- Amend the Law on Organic Production to remove certain weaknesses and possibilities for different interpretation, as well as problems arising thereof; - Draft all rulebooks to support the Law and regulate the remaining issues that have not yet been covered; - Facilitate import of organic pesticides and achieve more competitive production in comparison to other countries.	- Errors in implementation of organic production and problems in the process of controlling it; - Slow development of organic production and weak opportunities for access to international markets; - Farmers will continue to have small quantities of premium input material available, hence non-competitive production; - Multiplied errors in the control process and inability to use measures intended for development of organic production.

Certain sections in the Law on Organic Production still provide for different interpretation, and in addition, new rulebooks need to be adopted in line with the new European legislation, which contributes to conflicting states. Complex legal procedures for import of organic pesticides are yet another obstacle slowing down organic farming production.

Failure to use opportunities described above, including correcting the weaknesses, may contribute to errors in implementation and control of organic production, hence reduction of the scope of organic production.

6.10. Collection of wild plants and fruits

Strengths	Weaknesses
- Macedonia has a large potential regarding wild medicinal herbs, mushrooms, forest fruits and similar plants; - Forests in the Republic Macedonia are very bio-diversified; - The Republic of Macedonia has clean regions in terms of environment, which is a precondition for organic certification of plants, mushrooms and forest fruits collected in those regions; - The need for using disallowed inputs for treatment against forest pests and diseases is reduced to minimum. The occurrence of forest pests and diseases is rare and almost always of small range; - The procedure for obtaining a Certificate for non-testing is quick and simple; - There is a tradition in Macedonia of collection of wild plants. About 50,000 family households are involved in collection of forest fruits, mushrooms and medicinal plants, manly in the hilly and mountainous underdeveloped regions; - There is no transition. If requirements of the legislation there of are met, additional profit may be achieved in the first year of certification; - A significant foreign currency inflow from export of forest mushrooms and herbal plants is achieved;	- Collectors have not been trained sufficiently about the principles of organic production that refer to collecting and processing wild plants, mushrooms and forest fruits, which puts into question the sustainability of collecting; - The number of collectors is decreasing as a result of migration of the population into urban areas; - The subject of wild plants collection is not sufficiently and clearly regulated by laws and rulebooks, and the existing ones are not sufficiently known and respected; - For companies who buy, process and export organic certified wild plants, mushrooms and forest fruits, there are no special subsidies within the Programmes for financial support; - Information/List of endangered and strictly protected plants is not easily available to collectors and companies that organise the collection and the buying; - There is no habit of labelling collected products in all phases of handling, which hinders meeting the requirements regarding provision of product tracing.

- There is a Strategy for Sustainable Development of Forestry in Macedonia, whose goal is to increase the contribution of forestry to the national and rural economy by sustainable management of forests, which itself is in close correlation with the principles of organic production; - There is a National Strategy on Biodiversity with an Action Plan.	
Opportunities	**Threats**
- Demand for organic wild plants, mushrooms and forest fruits at markets outside the country is great; - There is free market entrance of companies who wish to collect, buy and process wild plants, mushrooms and forest fruits; - Make an inventory of wild plants in order to provide sustainable exploitation of the natural potential.	- Destruction of forests caused by fires and severe exploitation may contribute to decline of the natural potential and the quantities collected; - 'Wild' collectors who work without a registered buying outlet, trained collectors and others, who largely impact purchasing prices and quantities; - Possible occurrence of pests requiring necessary treatment with disallowed inputs would exclude a region/area as a potential organic area for collection of certified plants, mushrooms and forest fruits.

Organic certification of wild plants (medicinal herbs, mushrooms and forest fruits) has become more significant due to several reasons:

- Entities that offer certified products have an opportunity for improved access to markets, selling by a higher price, as well as an advantage when selling in circumstances of strong competition;
- It provides sustainable practice of collecting and long-term survival of varieties collected;
- It allows for implementation of product traceability system which guarantees maintenance of the organic quality of products from the location of collection all the way to the final product, and on the other hand it is of key importance for a safe and quality product.

According to the SWOT analysis of wild plant collection, it could be concluded that in Macedonia there are many strengths to be taken into account and utilised. Macedonia has a large potential for collection of certain wild plants that have not been used sufficiently. Increased usage of this natural potential including sustainable collection, would lead to achieving a positive financial effect for collectors themselves, as well as for companies that buy, process and trade the wild plants, but also for the state in terms of foreign currency inflow arising from export of these products.

Eco-systems in the Republic of Macedonia are immensely bio-diversified, offering a large number of wild plants at domestic and international markets.

The Republic of Macedonia has environmentally clean regions, which is a major precondition for organic certification of wild plants collected in such regions. The growing number of domestic, and in particular foreign investors, have shown interest in investing in this production, for the fact that in our country there still are regions without any sources of pollution.

Collection of wild plants is specific in terms of organic certification, since there is no need for transition. If certain requirements of the relevant legislation are met, organic status is obtained at once, including additional profit in the first year of certification. This specific feature is yet another positive point.

Export of wild plants currently contributes to a significant foreign currency inflow. If the exploitation of the natural potential is intensified further and the trend of investing carries on, there will be an increase of the foreign currency inflow.

The occurrence of forest pests and diseases is increasing, however still at small scale. It is a result of localised and insufficient treatment of forests regarding destruction of pests and diseases. Still this allows for meeting the requirements of organic regulations, for a region not treated with disallowed inputs for at least 3 years. Certainly this should be confirmed by a competent institution, in this case MAFWE. The procedure for obtaining Certificate for non-treatment is swift and simple, which greatly facilitates and speeds up the procedure of control and certification.

In Macedonia there is a tradition for wild plants collection. About 50,000 family households are involved in collection of forest fruits, mushrooms and medicinal plants, manly in the hilly and mountainous underdeveloped regions.

Finally, the Strategy on Sustainable Development of Forestry in Macedonia should also be emphasised as a strong point, aiming at increasing the contribution of forestry to the national and rural economy by sustainable management with forests, in close correlation with the principles of organic production.

Regardless of the number and value of strengths, they cannot be utilised fully without working on removal of or at least mitigation of the impact of weaknesses as defined in the SWOT analysis.

Collectors have not been sufficiently trained in the principles of organic production relating to collection and processing of wild plants, mushrooms and forest fruits, which puts into question the quality and sustainability of collected products and varieties. As a result of rural to urban migration, including labour migration abroad, the number of collectors of wild plants has been declining.

Collection of wild plants has not been sufficiently and clearly regulated by laws and rulebooks, and current legislation in place is not sufficiently known and respected. It results in confusion and obstacles in the operations of entities involved in the process of collection, buying, processing and trade of wild plants.

For companies who buy, process and export organic certified wild plants, there are no special subsidies from the Programme of Financial Support of Agriculture. On the other hand, they have been investing in registration and adaptation of buying outlets for delivery and storage of organic

certified products, including investments in training of collectors about the principles of collection of organic wild plants.

The major obstacle for organic certification of wild plants is the inexistence of a habit to label collected products in all stages of handling, which hinders the ability to meet requirements referring to product traceability.

Information/Lists of endangered and strictly protected plants are not easily available to collectors and companies that organise the collection and the buying.

When we speak about opportunities identified in the area of wild plants collection, we should primarily emphasise the demand for organic wild plants at markets outside the country, which has been growing constantly. Such products are widely used in the food industry, medicine and cosmetics. The quality of certified organic wild plants exported from Macedonia has been confirmed, particularly on markets in Europe. Of exceptional significance is the free market entrance of companies who wish to collect, buy and process wild plants. At the same time, the insufficiently used natural potential, frequently mentioned in this analysis, has appeared to be an opportunity to be used.

Wild plant collection has faced threats in terms of damages which may be caused by destruction of forests including fires and severe exploitation. This may lead to decline of the natural potential and quantities collected. 'Wild' buyers working without registered buying points, trained collectors and similar individuals, who greatly impact purchase prices and quantities, are a threat to companies that collect, buy and invest in organic certification. Possible occurrence of pests requiring treatment with disallowed inputs, would exclude the region/area from potential areas for collection of certified organic wild plants, mushrooms and forest fruits.

7. Analysis of interested parties

In the process of drafting the National Plan for Organic Production 2013-2020, parties interested in this area have provided important information relating to needs, resources, defining realistic goals and practical aspects in the field of organic production and have identified future potential problems, as well as measures for prevention and solution.

The interested parties consist of individuals, groups and institutions which are directly or indirectly affected by the Plan, including the following:

- Users,
- Government institutions/agencies,
- Research and science community,
- NGOs,
- Those providing resources for implementation of the Plan and
- Other entities.

Users	- Federation of Organic Producers of Macedonia - FOPM - Farmers/Farmers' associations - Processing Companies - Traders - Organic Food Consumers
Government institutions/agencies	- Ministry of Agriculture, Forestry and Water Economy, - Ministry of Environment and Spatial Planning,

	- Ministry of Economy, - Ministry of Finance, - Food and Veterinary Agency, - National Extension Agency, - Agency for Financial Support of Agriculture and Rural Development -
Research and science community	- Agricultural Faculty University of Goce Delchev – Stip - Faculty of Agricultural Sciences and Food, University "Sv. Kiril i Metodij" - Skopje - Agricultural Institute - Skopje - Institute of Animal Breeding - Skopje
NGOs	- 'Balkan Biocert' certification body - 'Pro Cert' certification and control body - Macedonian environmental society, MES
Entities providing resources for implementation of the Plan	- Ministry of Finance, - Ministry of Agriculture, Forestry and Water Economy
Other	- Standing Working Group for Rural Development (SWG)

Chapter 2

8. Strategy for Organic Production

8.1. National Strategic Goal

MAFWE adopted the following strategic goal: strengthen the competitiveness of organic production in RM for the purpose of successful placement at domestic and foreign markets.

8.2. Specific goals:

1. Primary agricultural production

- Increase certified lands for organic production by 4% of the total agricultural land and 4% of the total certified animals for organic production (including bee families and fishery) from the total livestock in the Republic of Macedonia;
- Identify and support strategic organic products;
- Improve availability of inputs allowed for use in organic production.

2. Processing industry

- Diversification of sectors in the processing industry involved in processing of organic agricultural products;
- Increase offer and assortment of foods processed from organic products.

3. Trade

- Increase the assortment and quantities of organic farm products;
- Increase the demand and the supply of organic farm products;
- Raise public awareness for organic food;

- Use opportunities for organic product consumption by development of eco-tourism;
- Increase the level of placement of Macedonian organic farm products to export markets.

4. Control and certification

- Increase competition in the offer of control and certification services;
- Institutionally strengthen the system of supervision of organic production.
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5. Education and science

- Increase the coverage of organic production in education (both formal and informal education);
- Increase the number of accredited modules for organic production second and third cycle of studies at high education and research institutions in the country;
- Intensify and extend research of organic farming techniques in the Republic of Macedonia;
- Intensify and extend research of the natural resources potential in the Republic of Macedonia;
- Start market research.

6. Policy and legislation

- Institutional strengthening and expert training of institutions involved in the system of organic production (knowledge, human resources, infrastructure);
- Increase cooperation and communication among all involved and affected parties;
- Strengthen organic farmers' associations and other non-governmental organisations and support their networking and cooperation;
- Strengthen organic farmers' associations and other non-governmental organisations and support their networking and cooperation with co-operatives.

7. Wild plants collection

- Increase the number of entities and lands certified for collection of wild plants;
- Increase the offer of certified wild plants;
- Establish sustainable method of using natural resources by organic certification of entities.

Action Plan to the National Plan for Organic Production 2013-2020

Area of intervention/goal	Measures	Method of implementation of measure	Implemented by	Time frame
1. Primary agricultural production Increase certified lands for organic production by 4% and 4% the total certified animals for organic livestock (including bee families and fishery).	Support of primary organic production	Within the framework of the direct payment programme (per ha and per head) and the rural development programme, and offering this support in the programme period (2013-2018)	MAFWE/AFSARD	2020
	Support for produced and sold product in transition of certified processing entities		MAFWE/AFSARD	2013 - 2020
	Support for produced and sold product of certified processing entities	Within the framework of the direct payment programme (per kg or l of product delivered)	MAFWE/AFSARD	2013 - 2020
	Fee to cover costs for control and certification	Within the framework of the direct payment programme (per kg or l of product delivered)		
	Fee for laboratory analysis			
- Identify and support strategic organic products.	Identification of strategic organic products	50% of total costs		
- Improve availability of inputs allowed in organic production.		% of total costs		
	Identification of autochthonous organic products	Research into economic and other parameters		
	Support for produced and sold organic product	Within the framework of the direct payment programme (per kg or l of product delivered)	MAFWE /Universities	2013
	Support for increased domestic production of inputs	% of the costs for production of seeds and seedlings, fertilizers, plant protection products and other inputs	MAFWE /Universities	2015 - 2020
	Support for certified entities using inputs allowed for organic production	% of the costs of use of allowed inputs	MAFWE /Universities	2015 - 2020

Action Plan to the National Plan for Organic Production 2013-2020

Area of intervention/goal	Measures	Method of implementation of measure	Implemented by	Time frame
2. Processing industry				
- Diversify sectors in the processing industry involved in organic product processing	Support for certified processing capacities	Within the framework of the direct payment programme or other government programmes % processed and sold quantities	MAFWE /ME	2013 - 2020
- Increase the offer and assortment of organic processed products	Expert technical and technological information on organic farming Additional financial support per kilogram (kg) or litter (l) of certified organic product from certified organic processing plant	Providing and making available expert technical and technological information for producers and processors Within the framework of the direct payment programme (proportionate increased value of current payments per kg or l for delivered product)	MAFWE, NEA, ME, FOPM, CB	2013 - 2020

Action Plan to the National Plan for Organic Production 2013-2020

Area of intervention/goal	Measures	Method of implementation of measure	Implemented by	Time frame
3. Trade - Increase assortment and quantities of organic products; - Increase demand and supply of organic products; - Raise public awareness for organic food; - Use opportunities for consumption of organic products by developing eco-tourism; - Increase placement of Macedonian organic products at export markets.	Market research on the demand of organic products Distribute information to interested parties and organic products consumers Support for organic producers and processors for export promotion of Macedonian products Support in organising sale outlets (green markets) in bigger market centres	Popularise the portal www.organicmacedonia.org.mk; organise promotion events and information campaigns Present Macedonian organic product at fairs and exhibitions at national and European level Establish regular supply of organic products and direct access to final users Within the framework of the direct payment programme and other government programmes % of the value of sold quantity of organic products or products in transition to final users, and/or exported products	MAFWE, NGOs, FOPM MAFWE, ME, Agency for Foreign Investments, AFSARD	2013 - 2020 2013 - 2020

Action Plan to the National Plan for Organic Production 2013-2020

Area of intervention/goal	Measures	Method of implementation of measure	Implemented by	Time frame
4. Control and certification				
- strengthen competition in the offer of control and certification services	Approve capacities of state administration working on organic production	Training and drafting instructions/brochures for supervision	MAFWE	2013 - 2020
- Carry out institutional strengthening of the supervision system for organic production	Establish a control system in accordance with EN 1711 standard	Accreditation of the State Agricultural Inspectorate	MAFWE	2013 - 2020
	Improve cooperation among inspection authorities	Exchange of experience and information and regular meetings	MAFWE, CB	2013 - 2020

Action Plan to the National Plan for Organic Production 2013-2020

Area of intervention/goal	Measures	Method of implementation of measure	Implemented by	Time frame
5. Education and science				
- Increase share of organic production in education (both formal and informal)	Intensify and extend research in the field of organic production within national and sectorial research programmes	Establish science and research projects	MAFWE, MES, EC Programmes for Research, Universities	2013 - 2020
- Increase number of accredited modules on organic production in second and third cycle of studies at university and research institutions in the country		Establish demonstration trial centres for organic production	MAFWE, MES, EC Programmes for Research, Universities	2013 - 2020
- Intensify research on organic techniques in the Republic of Macedonia	Integrate organic farms for research and application purposes	Implement specific research programmes in the field of organic production and integrate Macedonian research centres in the European research centres on organic production	MAFWE, MES, EC Programmes for Research, Universities	2013 - 2020
- Intensify and extend research of the natural resource potential in the Republic of Macedonia	Organise national science and research meetings	Present findings from organic production research, trials and projects conducted nationally and regionally	MAFWE, MES, EC Programmes for Research, Universities	2013 - 2020
- Start market research				

Action Plan to the National Plan for Organic Production 2013-2020

Area of intervention/goal	Measures	Method of implementation of measure	Implemented by	Time frame
6. Policy and legislation				
- Carry out institutional strengthening and expert training for institutions involved in the organic production system (knowledge, human resources, infrastructure)	Continuous update and harmonisation of organic production legislation with the EU		MAFWE	2013 - 2020
	Strengthen capacities of state administration working in the field of organic production		MAFWE	2013 - 2020
- Enhance cooperation and communications among all involved and interested parties	Develop models on proper allocation of state financial support of organic production		MAFWE	2013 - 2020
- strengthen organic farmers' associations and other non-governmental organisations and support their networking and cooperation	Increase investment projects in organic production for sustainable rural development		MAFWE	2013 - 2020
- strengthen organic farmers' associations and support their networking with co-operatives	Improved advisory services	Building capacities/training	NEA, private advisors	2013 - 2020
	Support of the FOPM	Share the costs for accounting and cover the costs for salary for the manager		2013 - 2020