Study

Agribusiness and Agro-Industrial Strategies, Policies and Priorities for Achieving Higher Competitiveness, Employability and Sustainability in the Western Balkans Region

Radmila Grozdanić

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Labour Relations and Social Dialogue in South East Europe

EFFAT

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I Foreword

Most of the countries in South East Europe are suffering today from the toughest economic crisis since the beginning of the difficult political, economic and social transformation of the region. The economies were not able to overcome the crisis of 2009, which then became a "double dip" recession with the next crisis in 2012. Unemployment, mainly youth unemployment has rocketed and the economic forecasts are still rather gloomy. As a consequence we can now observe intensification of the discussions about strategies of economic development, not only on a national, but also on the regional level, where a South East Europe Strategy 2020 (within the framework of Europe 2020) is being debated at the Regional Cooperation Council.

The biggest task is - from our point of view - to formulate and implement concepts of improving the competitiveness of the economy whilst retaining social responsibility and creating new jobs with decent working conditions and providing social protection. We think that this debate should also be carried into the tripartite economic and social commissions, where Governments should present their ideas to employer's and worker's organizations and vice versa. The modernization of the economy in South East Europe is not just a matter for the elites; it is a matter for the whole of society.

One of the dominating economic sectors in the region is agriculture; a field which provides employment for a large number of workers. A socially responsible modernization programme for this sector is a must vis-à-vis the economic integration into the European single market with its rules and regulations, but it is also a great opportunity; given the huge market of 500 million Europeans. The European integration process will not be complete without the accession of the Western Balkan Countries into the European Union, but the accession process is arduous, not only with regard to the institutional settings, but also to economic competitiveness.

The European Federation of Food, Agriculture and Tourism Trade Unions (EFFAT), representing 120 national trade unions from 35 European countries with more than 2.6 million members, is very much interested to promote a discussion about the perspectives of the agricultural sector in this South Eastern European region on the basis of an open evaluation. Therefore EFFAT and our Regional Project for Labour Relations and Social Dialogue in South East Europe have commissioned Professor Dr. Radmila Grozdanic to prepare a study about the situation and possible perspectives of agribusiness in the Western Balkans. The research presented in this volume contributes significantly to the evaluation of the performance of this economic sector in the region. We would like to express our sincerest gratitude to Professor Dr. Radmila Grozdanic for her in-depth and comprehensive analysis and for the policy recommendations. We hope that her study will contribute to finding solutions to further develop and modernize agribusiness into a competitive sector providing jobs with decent working conditions.

Belgrade, July 2013
Roland Feicht
Director,
Friedrich-Ebert-Stiftung,
Regional Project for
Labour Relations and
Social Dialogue
in South East Europe

II Foreword

South East Europe is a very history-charged region in Europe which was in the last decades hardly able to participate in the European integration process. It is a region, which was, after the fall of the Berlin Wall and within the transformation process, subject to difficult political, economic and social conditions, but was however able to achieve considerable economic growth rates before the breakout of the crisis in 2008. This growth was encouraging, unfortunately however, the crisis has led to negative consequences for this region, so much so that the region is now suffering from enormous political, economic and social problems, as no other region in Europe.

But membership of the European Union is also a prospect for these countries. The European integration process is not a closed one as long as all countries of this region have not become members of the EU. Membership is for these countries connected not only with chances but also with social risks – especially for one of the dominating sectors in the region: the agricultural sector, which is still providing a large number of workers and their families with modest earnings.

One of the large political challenges is therefore to strengthen the competitiveness of these sectors in the EU and to develop a sustainable EU agriculture and food sector, which can provide and retain secure work places with decent working conditions in South East Europe as well. Convincing political and social-economic

concepts are necessary for the socially acceptable modernisation of these sectors and it is necessary to join all forces of society, including trade unions, in order to implement and enforce sustainable modernisation.

At the beginning of this process an open evaluation of the situation has to be performed. Professor Dr. Radmila Grozdanic has contributed to this task significantly with this work. I would like to thank Professor Dr. Radmila Grozdanic for this, not only inspiring, but also very substantiated, study. I would also like to thank the Regional Project for Labour Relations and Social Dialogue in South East Europe of the Friedrich Ebert Foundation in Belgrade, which funded this work and which has worked for years on strengthening the role of trade unions as social partners and one of the most significant democratic stakeholders in the civil society of South East Europe; through seminars and projects for organisational development.

If this study can contribute to the encouragement of all political authorities and social stakeholders to use, develop and promote the potential of the agriculture and food sectors in this region in future, then it will have fulfilled one of its goals.

Brussels, July 2013
Harald Wiedenhofer
EFFAT General Secretary

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List of acronyms and abbreviation meanings

Agro	Kombinat
CEFTA	Central European Free Trade Agreements
EU	European Union
EUR	Euro
FTA	Free Trade Agreements
GAP	Good Agriculture Practice
GDP	Gross Domestic Product
GI	Geographical Indications
GMP	Good Manufacturing Practice
HACCP	Hazard Analysis and Critical Control Points
HFC	Household Final Consumption
IFAD	International Fund for Agricultural Development
IPPC	International Plant Protection Convention
MAFRD	Ministry of Agriculture Forestry and Rural Development
MKD	Macedonian dinar
NGO	Non-Governmental Organization
ISO	International Organization for Standardization
SMEs	Small Medium Enterprises
SWOT	Strengths, Weaknesses, Opportunities and Threats
UNMIK	United Nations Interim Administration Mission in Kosovo
USAID	United State Agency for International Development
VAT	Value Added Tax
SAA	Stabilization and Association Agreement
WBCs	Western Balkan countries
OECD	Organization for Economic Co-operation and Development
OIE	World Organization for Animal Health
ROO	Rules of Origin
SSG	Special Agricultural Safeguard
SPS	Sanitary and Phytosanitary Measures
TBT	Technical Barriers to Trade

Executive Summary

The central goal of this Study is to present an agenda for policy and programmatic initiatives that will facilitate the transformation of WBC's (Western Balkan Countries) agro-industries in a manner that accelerates economic growth, creates new job opportunities and reduces poverty. This goal is supported by further specific objectives:

- To provide public goods and formulate and implement policies that facilitate efficient trade along agro-industry value chains;
- To create new and improve existing innovative institutions that strengthen SME linkages and small-holder access to national, regional, and global agribusiness and agro-industry supply chains;
- To provide information on opportunities and innovative tools of investment capital and risk management instruments to agro-enterprises to enhance the competitiveness of agro-industries.

The Study characterizes the policy and economic context related to WBC agro industries, identifies prime forces shaping their growth and development, and lays out a detailed log-frame of interventions designed to accelerate agribusiness and agro-industries development in WBC, including a very brief introduction to social cohesion, social dialogue and the role of the Trade Unions in the sectoral industrial policy development in the period of accessing WB countries to EU approach, together with a summary of the conclusions arising from each task of the study.

Policy and Economic Development Context. The Western Balkan region comprising Albania; Serbia; Montenegro; including Kosovo; Croatia; Bosnia and Herzegovina and Macedonia share the same perspective of EU membership. This is being pursued within the framework of the Stabilization and Association Process (SAP).

Albania, Croatia and Macedonia are members of the World Trade Organization while others are seeking membership. WBC are well on their way to sufficiently fulfilling the political criteria for membership of the EU and delivering a number of reforms against the key priorities of the Commission's 2010 Opinion, improving the: legislative and institutional framework and policies with a view to strengthening the functioning of the parliament, the judiciary, anti-corruption policy, human rights and protection of minorities.

The Western Balkan region covers a total area of almost 4 million km². The Region's agricultural land represents 8% of the agricultural land of the EU. The Region has a population of 23.7 million persons, which represents 5.2% of the population of the European Union. From 2000-2008, all of the WBCs experienced faster economic growth than the EU, averaging an annual growth in real gross domestic product (GDP) of between 6.1% in Albania and 2.7% in Macedonia and Kosovo (compared to 2% in the EU 27). The Region as a whole has a GDP of around €60 billion, which represents only 2% of the EU economy. The largest and most developed economy is Croatia with a GDP of €28 billion (equivalent to almost half of the total GDP for the Region) and a GDP per capita of almost €7,000 (the EU average is approximately €22,600). After two years of recovery from the global recession, as a group the Western Balkan countries are experiencing a double-dip recession in 2012, economic and fiscal problems: a continuing rise in unemployment, and decrease in consumption, investments, and exports. WB national economies are hardly competitive internationally: Albania has been ranked at 108 out of 134 in the global competitiveness ranking of the World Economic Forum, Bosnia at 107, Croatia at 61, Montenegro at 65, Serbia at 85, and Macedonia at 89. This troubling data reflects the continuing influence of severe economic constraints. Western Balkan countries maintain substantial trade deficits in their balance of payments as a result of a large influx of goods from abroad and the difficulty of competing internationally. Because of extensive corruption and time-consuming bureaucratic obstacles, foreign direct

investment has been low, particularly in Bosnia, Macedonia and Serbia. Especially worrisome is the high level of unemployment and the way in which the informal economy plays a fundamental role in sustaining individuals and families.

Reported (SEE No 6/2012) growth in 2013 is expected to average 1.6 percent and the risks may be formidable. Among the clouds on the horizon for 2013 are the global impacts of the U.S. "fiscal cliff," the uncertain recovery of the Eurozone, and high commodity prices—risks to which all the WB countries are highly vulnerable. Also worrisome for its households is the risk of a new food price shock, which could exacerbate poverty and put pressure on the middle class. Growth is expected to recover because of a rebounding of agriculture, increasing auto exports from Serbia, and some easing of external and domestic demand conditions (assuming that the risks to the Eurozone and global economy do not materialize). Labour market, the investment climate, and public sector reforms must be accelerated. The recognized macroeconomic and structural agenda for the Western Balkans includes: Labour market reforms, Education reforms, Trade integration, an improved business environment, and competition, Simplifying business regulation, addressing governance issues and enforcing contract and property rights are areas where the WB countries could pursue reforms for quick results. The region could also benefit from harmonizing regulation across borders and deepening trade and financial integration. On November 8, 2012, the EIB, the EBRD and the World Bank announced a Joint Action Plan for Growth in Central and Eastern Europe" initiative to provide €30 billion in financing for Central and Eastern Europe in support of growth and jobs. This financing may be available for WBC countries through the Western Balkans Investment Framework with other IFIs being likely channels. IPA funding will also be very important in supporting WB countries' institutional reforms, cross-border cooperation and economic, social and rural development.

Structural Attractiveness of the Agro-industries- Economic Growth. Although agriculture's share in the economy has decreased in the last ten years, it is still relatively more important in the WBs than in the EU, both in terms of value added and employment. The share of agriculture in gross value added (GVA) and employment is particularly high in Albania (close to 20% and over 50%, respectively), but also in Serbia, Bosnia Herzegovina and Macedonia (around 10% and 20%, respectively). The most important field crops in WBs, except Montenegro, are cereals, covering

between 40% and 65% of the arable land. Oilseeds and sugar beet are produced on a larger scale only in Croatia and Serbia, while tobacco is important in Macedonia, Bosnia Herzegovina and Montenegro. Fruits and vegetables are among the leading crop sectors in all WBs. Except in Serbia and Montenegro, livestock production has improved as well. In most WBs, beef or milk production occupy first place. The pig sector is very important in Croatia, where poultry is also among the leading sectors, as well as in Serbia and to a lesser extent in Macedonia. The sheep and goat sector is also quite important in all WBs. Of all the WBs, only Serbia, which is also the only net exporter of agricultural and food products, shows significant price competitiveness, while in other countries price competitiveness is limited to crop products such as cereals and industrial crops (Croatia), tobacco, some fruits, vegetables and wine (Macedonia, Montenegro), while among livestock products only lambs seem to be price competitive (in most WBs). These are also the leading WBs export products. Exports are predominantly represented by raw materials and low value-added (processed) products. The majority of agro-food exports take place with the countries in the region (WB), followed by the EU, while in imports all destinations are represented more evenly. The exception is Albania, where trade with the EU is by far the most important in terms of exports and imports. Regarding the output of agriculture, Serbia is the largest producer in the region.

The proportion of agriculture and services is as follows	
EU-27	2% - 72%
Croatia	7% - 62%
Bosnia and Herzegovina	10% - 46%
Macedonia	12% - 58%
Montenegro (2004 figures)	12% - 55%
Serbia	13% - 40%
Albania (2005 figures)	21% - 58%

Eurostat 2008a

Most WBs have rather a high natural potential for agriculture, (relatively inexpensive labour, land and water resources, and good climate and soil conditions for certain products such as tobacco, some fruits and vegetables, wine, cereals and meat). There are also highly-productive agriculture regions with well integrated economies in the northern part of the Balkan Peninsula (Sava Basin, Danube Basin, Pannonia Plain). This area has favourable soil and climatic conditions for capital-intensive agricultural production. Moreover, it has adequate human capital, developed entrepreneurship, a sufficiently diversified industrial sector and a well-developed infrastructure.

Taking into account the size of rural areas, the percentage of the population living in them, and high relevance of agriculture for national economies, it is clear that rural development must also become a vitally important policy area in the Western Balkans. With a 58% share, the sector has a huge role in employment, but it was also much higher in previous years. The rural economy plays an important role with regard to employment, since the economic growth in urban centers is too slow to generate sufficient employment to absorb the migrated labour force, particularly in transition countries. Agriculture based on low-intensity grazing and farming remains the predominant activity in most rural areas. The small-scale and fragmented nature of private farming remains a general characteristic of agriculture in all WBs, representing a long-term structural handicap. The average farm size ranges from 1.2 ha in Albania to less than 4 ha in Serbia. In some WBs, such as Croatia, Macedonia and Serbia, a dual structure is still apparent, but between the large-scale holdings (former state and collective farms) and the traditional, very small family farms, new, medium-sized, commercial farms are gradually emerging. Progress has been achieved in the development of agriculture in all WBs in recent years, but a great deal of work remains to be done to prepare their respective agricultural sectors for EU accession. The factors hindering the development of agriculture are small-scale farms, a low share of market production, poorly-developed market structures, the lack of meeting food safety standards and limited capacity for exports. WBC should be more in a position to implement the requirements of accession in the fields of: competition policy, agriculture and rural development, food safety, veterinary and phytosanitary policy, fisheries, regional policy, coordination of structural instruments, the judiciary and fundamental rights, justice, freedom, security and the environment. In the fields of food safety, veterinary and phytosanitary policy increased efforts are needed in the areas of the animal by-products sector, the upgrading of establishments and monitoring; in particular with regard to border inspection posts.

The challenge for a reform of agricultural and rural development policies in WBC is to make them compatible with the rules and regulations under the WTO and other international commitments. Revitalization implies defining and implementing incentives that will convince the economic actors in rural areas in WB (e.g. farmers, forest managers, etc.) to invest and to produce. Two main sets of options for interventions are distinguished: Market based incentives, and Public goods-based incentives. However, revitalization policies in WBC are dependent on an enabling

macro-economic environment and an appropriate institutional framework which should be an integral part of specific sectoral policies, especially agricultural and rural development policies. These actions, on the WBC level could develop a vision of "a modern and sustainable agriculture, based on the effectiveness and efficiency of family farms and the promotion of agricultural enterprises through the involvement of the private sector", designed to achieve significant results in the short and long term focusing on the development of different value chains (food, peri-urban agriculture, export crops, short-cycle breeding, agro-forestry products, non-industrial fishing and aquaculture with an new Agro-dealers regional network establishment), the development of product processing, the strengthening of support services provided to operators, the promotion of national, regional and international trade and improving the capabilities and the role of local and regional Producers, who form the largest component of the agro-food value chain of WBC.

Market Opportunities, FTE, CEFTA. National and regional markets and intraregional trade remains very important in WB countries. Economic integration between WB countries is a continuum from shallow to deep integration. Although classical trade liberalization focuses on the removal of tariffs and quotas, a multitude of other barriers obstruct trade and resource flows between national economies, from at-the-border policies such as customs clearance and certification requirements to horizontal policies (e.g., competition policy or investment climate rules relating to FDI). Trade integration between WBC countries has allowed the emergence of production networks, outsourcing, supply-chain management, with individual production stages in manufacturing becoming increasingly fragmented. Production stages have moved to foreign countries (off-shoring) with comparative advantages (e.g. countries with low labour costs for labour-intensive tasks). Governments are therefore looking for sources of capital not only in the OECD countries but also in such resource-rich and growing middle-income countries as Turkey, Russia, China, Azerbaijan and the UAE.

The EU is the main trading partner for the WB countries. Over 75% of the exports from Albania went to the EU-27, in Montenegro less than 40% of the country's total imports arrived from the EU-27, while this was true of over 60% of imports into Albania and Croatia. Deficits in external trade in goods in most of the Western Balkan countries Internal Market asymmetry are due to the fact that the EU

liberalizes its trade measures in relation to respective SAA signatories more quickly than the latter effectively executes trade liberalization towards the EU. Three out of six Western Balkan countries are not yet members of the WTO: BH, Montenegro and Serbia have observer status.

Anticipation tools. Analysis of the future of WB and EU green food economy would open some further focal areas of WBC possible interest: biotechnology and its application in food production, GMO genetically modified organisms used in food production and future technological solutions. Because of this, foresight activities should be integrated into other forms of business development. Corporate management and trade unions should be able to clearly identify the added value of foresight activities in comparison to already existing strategic planning systems, and promote and include them in training programmes about social partners and industrial relations with the purpose of promoting social dialogue on sectorial and country levels, in order not to remain only passive but become active; which is the objective of further trade unions activities. Some market trends in this sector are of high interest to WBC and their further activities: Current market trends for high quality, fresh, organic, convenient foods might favour more farmers, holdings and SMEs due to proximity of the markets. Globalization of business and the growing need for faster communication imposes new technologies and transnational cooperation inside of WBC and the EU. The increasing proportion of food eaten outside the home and consumers interest for functional food entails fresh challenges to apply new techniques and marketing solutions. Increased political interest and support of WBC in renewing the food manufacturing industry and bringing it closer to the market can lead to incentives for innovation in agricultural and rural policy. During the process of accession of WBC, agriculture is one of the key issues in negotiations, due to the role the agrarian sector plays in WB countries, and more importantly, its low competitiveness and preparation for climate change. The patchwork of 32 bilateral free trade agreements between the countries of WB was consolidated into the Central European Free Trade Area (CEFTA) agreement, which entered into force in July 2007 for Albania, Kosovo, Macedonia, Montenegro, Moldova, Croatia, Serbia and Bosnia and Herzegovina. In addition to the CEFTA and SAA agreements, there are two regional integration agreements for specific sectors: the Energy Community Treaty (ECT) and the European Common Aviation Area (ECAA) agreement. In both cases, the signatories include not only the countries

of the WBs but also the EU (this is not the case with CEFTA). The agreements oblige signatories to fully adopt sector-specific EU regulations by a given deadline (2015 for energy and 2010 for aviation) and will amount to a partial expansion of the EU Single Market to the WBs. A similar agreement is now being discussed for railways. Alongside the EU as a main trading partner of WB countries, is CEFTA a modern, comprehensive trade agreement - very important for the cooperation and development of these countries. The Parties have agreed to a combination of specific commitments and evolutionary clauses in areas such as services, investment, government procurement and protection of intellectual property. In summary, the main objectives for each topic are:

- **Services:** a progressive liberalization and mutual opening of the services market.
- **Investment**: ensuring stable and equitable treatment of investors and complementing the trade liberalization gains with investment opportunities.
- **Government procurement**: a progressive and effective opening of the governments' procurement markets by May 2010.
- **Protection of Intellectual Property**: ensure adequate and effective protection of intellectual property in accordance with international standards, in particular with TRIPS.

CEFTA countries need to agree to diagonal commutation among themselves, so that the origin of the product, as long as it is made within the CEFTA region, is not an issue in qualifying for free trade status. Involving the EU and all countries of the Western Balkans (which have an FTA (SAA) with the EU) will integrate them into the pan-Euro-Mediterranean zone of diagonal cumulating, which would require concerted efforts to strengthen the capacities of Customs and local producers. However, rules of origin under the Pan-Euro-Med system are sophisticated and could be difficult to implement by local Customs authorities and by small and medium enterprises of EU partner countries

Forces shaping Agro-industries in WB. Main challenges and progress on the path towards EU accession according to the legislative framework for WBC are: Better and simplified (food) legislation: impact assessments with independent quality control, reduction of administrative costs, technical simplification and co-regulation: using new EU standards. A public-private initiative on reducing and standardizing the large number of self-controlled systems and recognizing them

in public control systems might be beneficial; WB government policies could be directed to the harmonization of legislation within the EU as well as worldwide, to support advanced industry standards of the future as well as enterprises and trade policies which will not weaken competitiveness. WBC food legislation is positively perceived but Improvements would be welcomed in stability, clarity and accessibility of both legislation and the authorities. The biggest burdens for SMEs are experienced from food hygiene and labeling legislation. Due to the costs and time involved, it is very hard for a regular food business to bring a new additive, novel food, GMO or health claim to the market.

Political Stability. Due to political instability and frequent changes of government, most of the countries in the region are facing a lack of continuity in the implementation of different policies and measures for rural development. Political will and commitment by the countries of the region is key to promoting regional cooperation in its various forms, whether in the field of economy, infrastructure or justice and home affairs.

Political stability indicators for WB countries	
Albania	-37
Bosnia and Herzegovina	-52
Croatia	0,47
Macedonia	-0,66
Montenegro	0,15
Serbia	-0,69

Kauffmann (2010)

Institutional Capacity. The institutional and administrative framework for the development and implementation of agricultural and rural development policies remains weak in all countries of the region. Reform has been slow and the political will to introduce change, inconsistent. Human resources are inadequate at all levels, mostly lacking sufficient numbers, capacity, knowledge and relevant expertise to meet the challenges of a modern, competitive agro-food system or the diversity of problems facing under-developed rural areas. These weaknesses are compounded by a lack of reliable information on the economic situation of agriculture and rural areas. Adequate farm registries and animal identification systems do not yet exist in all countries. Information systems such as FADN and EAA, as applied in the EU Member States either do not exist or are at a very early stage of development. Intra-institutional and inter-institutional coordination mechanisms rarely exist, leading to policy inconsistencies and limited strategic harmonization of objectives, policies

and measures. It is often difficult to determine the single competent authority for a specific policy area or task.

Economic Forces. Poor Rural Infrastructure. The poor infrastructure, especially roads and public transport, are a particular concern for future regional and rural development planning. Rural areas are characterized by a lack of basic services (water supply, sewage systems, health services and education facilities) and suffer from poor physical infrastructure. The provision of social services (e.g. education, health care, care for ageing people, etc.) in rural areas is generally more costly and some countries are forced to discontinue providing these services for budgetary reasons. National Welfare provision is therefore decreasing and what is being provided is being delivered through poor basic infrastructure. The most specific constraints of rural development in WBC could be considered: low competitiveness of economic activities in rural areas (agriculture, forestry, fishery, food sector, rural tourism, service industry); Underdeveloped basic municipal and basic infrastructure in rural areas; Underdeveloped access of rural population and economic subjects placed in rural areas to public institutions and goods (telecommunications, public transport, educational and information systems, health - care); Areas damaged during the war, including a high percentage of mined land; Depopulation of rural areas; Unfavourable age and gender structure of rural population (18,9% of population in rural areas is older than 60 – women, and 65 years – men); Low level of education of rural population; Weak activity or non – existence of regional and local institutions competent for rural development; and inadequate coordination of programs and activities directed towards different economic activities in rural areas. Rural development policy must embody region-specific approaches that cover all activities and are multi-sectorial, including farming and other rural activities, and must be implemented in a participatory and transparent manner. The EU funds rural development under its second pillar, specifically supporting the synergies between agriculture and other activities in less favoured areas. In the programming period up to 2013 the proposed rural development programme is composed of four axes, of which one is the LEADER programme as a cross-cutting and integrating element. Diversification of income in rural areas includes the following: Tourism – growing niche markets such as rural tourism, eco-tourism, adventure tourism, cultural tourism, green tourism, hunting, outdoor sports; Profiling of local products (branding and labeling); Housing – second homes and hobby farmers;

Biotechnology – new technologies (breeds, feeds, crops, etc.) to support increased land use levels while maintaining or enhancing farm outputs; Public and private services that can be handled by the farmers themselves, who can be employed part-time for rural road and hiking track maintenance, waste treatment, postal services, school transport etc..

In order to find the right policies for revitalization, a systematic approach has to be followed and different options for revitalization of rural areas defined, including: preservation of biodiversity, policies that foster diversification in order to benefit from the natural potential of rural tourism, organic farming, collection of non-wood products, revitalization for recreation, preservation of quality of life and biodiversity, revitalization for economic development, development of rural areas for economic reasons and creating synergies with other sectors.

Social Forces. Rapid Urbanization, Depopulation of Rural areas. Depopulation is evident throughout the whole territory of the West Balkans, especially in the last decade. Trends of depopulation differ in each country. The factors which effect depopulation are mostly: negative natural increase, which is a consequence of bad age structure, as well as migrations. Possible measures to reverse this trend include: extending life expectancy, restricting access to birth control, increasing immigration, seeking to increase fertility, and implementation of the Leader principle of rural development.

Human resource development. Education is a key issue for the future prospects of agriculture. *Education* is used in the widest sense as it is one of the most powerful tools in changing the mentality of farmers. The common characteristic of the Western Balkan countries is the "large-scale" oriented method of education. Education policy in the agriculture sector is undergoing a rigorous process of adaptation towards being in line with the European Union's Common Agricultural Policy (CAP). The knowledge generation level encompasses research institutes and institutes of higher education. Current agricultural extension structures have been developed mainly within the last two decades with the help of international donor projects. In all of the countries public structures of extension exist. Private extension providers such as NGOs and individual veterinarians are also in operation as are commercial extension agents, although these are only available to the wealthier farming enterprises. The national

institutes that are to transform and generate knowledge at the agricultural level are Universities/Faculties and the Institutes/Centers for Applied Research in Agriculture. In all the countries, academic education and research were divided, so that faculties or universities merely had the task of educating students, whereas research institutes were dedicated to carrying out academic research in their fields of expertise. Farmers' knowledge and skills requirements encompass issues of production, farm management, marketing and rural development issues. In the area of production and processing this especially means the integration of advice on modern technology into a specific 'whole farm' perspective. The potential area for rural advisory work is currently served by NGOs and donor projects. Education and training in and for the agriculture sector is offered by vocational secondary schools, vocational adult education and agricultural universities. Formal offers (secondary school and university) are potentially available in all countries. Both of these types of institutions suffer from the agriculture sector being seen as an unattractive basis for making a livelihood; this results in fewer candidates applying to these institutions.

Importance of the Informal Sector. The informal economy is quite extensive in the Western Balkans, rates ranged from 27% to 50% of GDP (EAR 2011) . Some 69% of informal work is agricultural employment and the rest is split somewhat equally between waged informal work and self-employment in non-agriculture (World Bank, 2010). Despite all mantras and interventions aimed at reducing the grey economy and grey employment in particular, they have remained the most sustainable labour market segment for the past 20 years. Formality and informality in the region typically appear not as a binary choice, but rather along a spectrum of statuses, from full informality through semi-formality (agricultural employment; self-employment; double payrolls in many, especially small, private firms), to full formality seen most typically in the public sector.

Importance of the Informal Sector	
Albania	55.3%
Bosnia and Herzegovina	42%
Macedonia	32%
Montenegro	39.1%
Serbia	43%

EAR (2011)

Technological Forces. Innovation, producers on farms and manufacturers in the WB food industry need to innovate in order to survive in today's competitive EU food market. Critical success factors would be: financial resources, expensive material

or laboratories, knowledge, protection of intellectual and industrial property, knowledge of potential market, partnership and clusters, strong connections between the industry and universities. Strengths in this field are certainly the growing potential in the consumers linking food to health and well-being. Food industry in WBC should take into account the "Triple Helix collaboration", between society, industry, research and social partners to enable its growth and sustainability in a more successful way.

Information and Communication Technology (ICT) and availability of basic access to ICT should no longer be a barrier in WBC, specific food ICT with nano-sensors included in food should be developed alongside intelligent labeling which would allow for full traceability of products in order to answer consumer's needs. ADSL fast communication networks should also be developed. The rapid spread of mobile phone coverage in developing countries provides a unique opportunity to facilitate technological adoption via information and communication technology (ICT)-based extension programs of using ICT for agriculture, categorized by the mechanism (voice, text, internet and mobile money transfers) and the type of services provided. The impact of these programs on farmers' knowledge, technological adoption and welfare (as well as their cost-effectiveness) are more evident in WBC. AMIS, as with any other information system, will need time to mature on national and regional levels.

Research and Development. The Western Balkan professional institutions and University departments (agricultural, forestry, veterinary) linked to the primary sector, still seem to use traditional thematic approaches and methods, which are often not up-to-date and lack the interdisciplinary approach, so typical of European planning. R&D context is characterized by very low funding of research. The research community is rather small: 2,300 scientists in Albania, 255 R&D personnel and 1,800 researchers in Macedonia, 22,500 employees and 11,600 researchers in Serbia. There are a total of 47 research entities in WBC involved in agro-food research including 17 universities. It is estimated that there are between 3,450 and 3.650 researchers (FTE) scattered into 325 research groups. There is a need for capacity building and better programming of the research policy. Agriculture and the food industry (at least in some WB countries) is well known for the high speed with which it implements basic innovations from other industries (like ICT, logistics, marketing). Technology transfer to the mass of SMEs is a challenge due to limited management capacity and demanding management

tasks in several fields. For the R&D policy there is a large list of topics for innovation. These include health issues, micro-machine processing, food chain management ('fork-to-farm approach') and issues concerning food and the consumers. Food Valley approaches might enhance knowledge transfers from Universities to SMEs, cooperatives and farmers. Research and education are key elements in a sector that needs to be modernized and become competitive. According to the BAFN survey, food technology and plant science appear as major research areas.

Infrastructure. The economic underdevelopment of the Western Balkans corresponds to the underdevelopment of infrastructure and transport (foremost road and railway). The geo-strategic position of the Balkans is most emphasized in air and marine transport. Quality infrastructure such as roads, water, electricity, information and telecommunication services has to stimulate much more the development of both, farm and non-farm businesses. Trans-European Corridors of Infrastructure Investment: there is still no plan to extend Croatia's new highway into a complete Adriatic highway, which is badly needed to disincline Montenegro and Albania before reaching Greece. The Commission has already been negotiating with the Western Balkans accession to the Single European Sky. In Serbia some progress can be reported in the area of transport policy, particularly in road, inland waterways and air transport, There has been little progress on transport policy, mainly concerning Cabot age in the maritime sector in Albania, Bosnia and Herzegovina made little progress in the transport sector, but there were some positive developments regarding the trans-European transport networks and air transport. There has been good progress in the area of transport in Montenegro, in particular as regards road, rail and maritime transport, but there is a need to ensure effective implementation of the acquis, and in Macedonia little progress can be seen in the area of transport policy. Some progress on road transport acquis alignment can be reported, but not in road safety which remains a concern.

Market Information Systems. Crucial information systems like FADN and EAA as applied in the EU Member States are completely missing or at a very early stage of implementation. Furthermore there often is no complete farm register put in place yet. Therefore in most cases agricultural ministries lack the data and capacity to do sound policy analysis and assessing the possible impact of agricultural policies and other policies with potential effect on the sector.

Food Safety and Standards. Due to the implementation of the Commission White paper on Food Safety, WB food legislation has been developed to respond to growing concerns as regard food safety, consumer information and the functioning of the internal market. In the Western Balkan states about two thirds of an average rural family's income derives from agriculture, with more and more cash income deriving from the sale of livestock products, milk, vegetables, grapes and other fruit they produce. Therefore, a poorly functioning food quality control system is one of the most serious problems for the sector and for consumer protection. The EU has applied the WTO agreement on SPS (Sanitary and Phytosanitary Measures). This agreement sets out the basic rules but WTO members have the right to set out their own standards although the following five elements are necessary: Harmonization of SPS measures on the basis of international standards (the FAO/WHO Codex Alimentarius Commission for food; the International Animal Health Organization for animal health and the FAO's Secretariat of the International Plant Protection Convention for plant health), Transparency – governments are required to notify other countries of any new or changed SPS measures which could affect trade, Scientific basis – the SPS Agreement allows countries to set their own food safety and animal and plant health standards but they should be scientifically based, Nondiscrimination – foreign products should be treated no less favourably than domestic products, Equivalence – members shall accept the sanitary or phytosanitary measures of other members equivalent, even if these measures differ from their own. However, progress in adopting these measures seems very limited (ICO, 2008). A special pricing system, which encourages farmers to produce high-quality products, could be an element of it (EBRD, 2011). In addition, the small-scale farms do not often have sufficient resources for applying and maintaining food security systems. According to FAO (2007), realistically, less than 10% of farmers produce enough to compete on a higher level and to invest in expensive new technologies.

Innovative Institutions. Incubators, Business Clusters and Networks. The national innovation system - Business Support Infrastructure such as clusters, technology and innovation centers, technological and science parks, business-start-up centers and some related organizations in WBC have been developed mainly as comprehensive business support facilities, including incubation and strategies to improve the range and quality of business support services. The leading Western

Balkan group - Croatia, Serbia and Macedonia all made progress in innovation support. Croatia is the leading performer among the Western Balkan countries in the overall environment for SMEs, in innovation and technology centers and cooperation. Croatia also has the most advanced business incubator programmes. There is a national network of business incubators, as well as a national programme to support their operation and to establish new ones. The national innovation system (NIS) of Croatia is underdeveloped in comparison with all member states of the European Union. Croatia is lagging behind in knowledge based factors of growth that commonly shape the new techno-economic paradigm - knowledge economy such as: qualification structure of the labour force, technology capabilities of companies, research capacity in industry and computerization. Serbia has developed 92 industrial zones, 2 existing and 4 planned technology parks, 4 existing and 4 planned free zones, 66 brownfield locations, 85 cluster initiatives (5 clusters are from the agro industry), 23 business incubators (mostly multifunctional) and a solid policy framework for the development of SMEs and implemented reforms. Macedonia has recently made very important steps in the development of SMEs based on the SME Strategy: five clusters (in tourism, textile, information technologies, wine, as well as lamb and cheese industry) and five technology transfer centres were established and are operating with support of the TEMPUS Programme. By 2010[2] in Albania there were 8 industry clusters established in the Tourism Industry, the Meat Processing Industry and the Herbs and Spice Industry. In Bosnia and Herzegovina there were: Automotive Cluster (AC-BiH), Wood Processing and Forestry Cluster (WP&F Cluster), Tourism Cluster "Institute for Collaboration" (IFC), 6 Research Innovative Technology Centers and two incubators in Tuzla and Brčko. Even though the business environment in Montenegro has significantly improved over the past few years, the development of business incubators in Montenegro is in its initial phase with support of the Development Fund of the Republic of Montenegro, by 2009 the Business Start-Up Centre Bar and The Business Incubator Podgorica had been developed.

Financial forces. In many countries of the WB the lack of rural finance is one of the main reasons why farmers cannot invest in improving or expanding their

[2] see-science.eu Report

production base and become more competitive. In recent years, direct producer support has been the main element of **agricultural budgetary transfers** and also the major factor of growth in budgetary funds. In nearly all examined countries, crop and livestock production are supported through price aids, area and/or head age payments and input subsidies, which are all forms of support that are not in agreement with the reformed Common Agricultural Policy (CAP). Payments based on historical rights are scheduled to be introduced in Croatia in 2011. The implementation of direct payments according to the EU rules has also not been in place in any WBCs. Only in Croatia and partly in Macedonia have some important steps in this direction already been made. In monetary terms the Western Balkans are currently due to receive around €765 million per annum on average. If they were treated on a par with the two new member states the bill for the EU budget would increase by about €2 billion to around €2.7 billion. **Improving investment finance options there are**:

Warehouse receipt financing, private warehouse, as field warehouse (an arrangement where a collateral management or credit support company takes over the warehouse of a depositor (producer/ customer), or a public warehouse by leasing it (or part of it) for a nominal fee, and becomes responsible for the control of the commodities to be used as collateral. The instrument is especially interesting for rural small and medium enterprises, which are often unable to secure their borrowing requirements owing to lack of sufficient conventional loan collateral;

Credit guarantee scheme lending (CGSs), (experience of Croatian Agency for Small Enterprises, Portuguese Mutual Guarantee Scheme and The Association of Serbian Banks in setting up and maintaining a mutual guarantee scheme and a credit bureau) can help reduce information asymmetries between borrowers and lenders. Additionally, CGSs can alleviate the high collateral requirements demanded by banks

Contract Farming and Out-grower Schemes–Collective Action/Producer Associations, refers to a system where a central processing or exporting unit purchases the harvests of independent farmers and the terms of the purchase are arranged in advance through contracts. All kinds of contracts are of interest of WB farmers and SMEs in the agro industry sector: Market specification contracts, Resource-

providing contracts, Production management contracts, out grower schemes, Multipartite Arrangements. Cooperatives in WB should in principle be the ideal institution for integrating all stages of the production process and ensuring farmers are fully represented

EU financial assistance. Pre-accession support for agriculture and rural development - IPARD is the 5th component of IPA - the wider EU instrument for preparation and assistance for enlargement. Only countries with candidate status are eligible for IPARD funds. Accessing IPA funding will be significantly more demanding than previous pre-accession funds. IPA beneficiaries are expected to demonstrate absorptive capacity, short of which they will likely loose IPA funds. To demonstrate absorptive capacity countries must: quickly set-up and adequately staff the Central Financial Control Unit in the Treasury, establish the structures in charge of administering pre-accession funds in a manner consistent with the vigorous accounting and auditing standards of the EU; and, make sure the required legislation is passed by the Parliament in a timely manner. In 2011: WBIF approved 42 grant requests from beneficiaries, providing a contribution of €81 million from the Joint Grant Facility. The Private Sector Development was launched as a new sector with a first grant of €34.2 million for a major regional initiative; Project preparation has advanced rapidly with studies completed to date for 25 grants from a total of 123 approvals. EWBJF proposed €220 million total potential investment of approximately €10 billion.

Risk Mitigation and Monitoring. The region of the Western Balkan countries is one of the most vulnerable areas in Europe to the consequences and impacts of climate change and environmental risks. The impacts of climate change include the increased magnitude of floods and droughts and greater resulting damage, as well as reduction in crop yields. The adopted SEE/CCFAP-A, which runs from 2009 to 2015, provides a framework to tackle adaptation-related issues. Most of WBCs are signatories to the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol (KP) and are obliged to develop strategies for climate change mitigation and for adaptation to changing climatic conditions; to cooperate in climate observations, research and technology transfer; and to promote education and public awareness. In this regard, all European countries that are candidates for EU accession have assumed the obligations under the UNFCCC and KP. Responses of WBC in risk mitigation should be provided and monitored by:

- Public policy (Agro-environmental commitments, Agricultural areas under Natura 2000);
- Technology (Farmers' training levels and use of environmental farm advisory services);
- Market signals and attitudes (Area under organic farming);
- Input use (Mineral fertilizer consumption, Consumption of pesticides, Irrigation, Energy use);
- Land use (Land use change, Cropping patterns, Livestock patterns);
- Farm management (Soil cover, Tillage practices, Manure storage);
- Trends (Intensification/intensification, Specialization, Risk of land abandonment, Gross nitrogen balance);
- Pollution (Risk of pollution by phosphorus, Pesticide risk, Ammonia emissions, Greenhouse gas emissions);
- Resource depletion (Water abstraction, Soil erosion, Genetic diversity);
- Benefits (High Nature Value farmland, Renewable energy production);
- Biodiversity and habitats (Population trends of farmland birds);
- Natural resources (Soil quality, Water quality - Nitrate pollution, Water quality - Pesticide pollution);
- Landscape (Landscape - state and diversity)

Trade Unions Program Framework for Policy Decision Makers Communication. In order to improve working and living conditions for agroindustry workers as well as for the unemployed seeking new opportunities in farming and the green economy in WBC, the TUs would have to work towards a Western Balkan coordinated collective bargaining policy. Efforts of Trade unions should be included as part of the process to create a more social Europe where there is room for a "genuine negotiation culture". Today, the TU's collective bargaining coordination activities and approved policy papers should cover a range of subjects from wages and working time to employment policies, training and social security issues. The TU coordination approach could be implemented in addition by regional networks, to let observers participate in the collective bargaining negotiations in neighboring countries. The Stabilization and Association Process (SAP) within the Western Balkan countries contributes to peace, security and the development of a civil and market economy. TUs as a supporter of EU enlargement have the opportunity to create most suitable forms to support the process of European enlargement. The

European agroindustry workers' unions endeavor to ensure that the social and economic integration of future Member States is accomplished as soon as possible and that further accession contributes to social cohesion throughout Europe. Only by maintaining a high level of social and economic standards can European integration be a tangible success.

The main objectives of the TU for the future period in the area of European integration should include the achievement of rapid social and economic integration in the interests of all citizens across the WBs, in particular:

- To continue focusing on enlargement aspects, preparation for EU accession and dealing with the consequences of this process in the countries and regions concerned as well as at European level.
- To support the involvement of trade union organizations from the regions concerned with policy areas and sectoral work in the agroindustries of the WBs through active participation:
- Paying particular attention to the involvement of employee representatives from the region in TUs and trade union coordinated actions in multinational companies;
- Supporting social dialogue structures at national level with a view to their future role in the European social dialogue;
- TUs playing an important role and actively influencing European and national horizontal and sectoral industrial policies in the agroindustry;
- To extend education and training activities for trade unionists from WB countries, including training on EU and international legislation in the agroindustry sector, as well as other topics relevant for trade union work, through specially designed projects;
- To develop strategies with regard to strengthening trade unions, building up human resources and financial capacities, as well as recruiting new members from cooperatives, SMEs from the agroindustry sector, unemployed young people from rural areas of WB countries, the informal agro sector and women. Bearing in mind that during the transition the old cooperative system from socialist times more or less fell apart, many donors' projects, aimed mainly at modernising agricultural production, favoured and even conditioned the association processes of farmers, however, to date, the real impact of various farmers' and producers' associations on agricultural and rural development policies is relatively low. Most of them however play a significant role in transfer of knowledge, various advisory services and

promotion of agricultural products, but Trade unions could help their members, as future union representatives to develop these structures in favour of the social and economic interests of the members.

- To consolidate and further develop support for social and trade union rights in WB countries where they are violated by employers or national governments through WB and European solidarity.
- Urgent need for TUs in the field of labour policy amended statutes in order to: create access at all organizational levels, promote working time reductions as an alternative to growing unemployment, call for greater agro economic policy coordination in the EU, debate more European policy issues and cross-border cooperation, propagate and support initiation of TU and IPA programmes and extend membership to trade unions in the Western Balkans.

The main task will include pro-active support for the implementation of the social acquis communautaire in the Candidate Countries and New Member States paying special attention to all regulations with an impact on horizontal or the agroindustry sector industrial policy (environment, innovation, trade, energy, training, etc.). An internal system of information exchange among organizations in the WB region and reporting on the results of participation in different TU working structures will help to make best use of the resources and assure regular communication and co-operation.

1. Introduction

Western Balkan countries (WBC) are all on the path to joining the European Union (EU). Croatia (HR) became EU-member in July 2013; Macedonia (MK), Montenegro (ME) and Serbia (RS) have the status of candidate countries. Albania (AL), Bosnia-Herzegovina (BA) and Kosovo (XK) are potential candidates with the prospects of joining the EU as and when they meet the established conditions. During the pre-accession process, the candidate countries harmonize their legislation with the EU *acquis communitaire*, adapt their Institutions and economic policies, strengthen the rule of law and develop market-oriented economies. Harmonization in the area of agriculture is particularly demanding, especially for economically less-developed countries whose agricultural policy usually has a different role than in the EU.

The EU's Common Agricultural Policy (CAP) is the result of a long-term evolution of European integration processes and reforms of policy mechanisms. Initially, an extremely protectionist model of price supports was selected, which was then gradually transformed into a policy of (production) decoupled direct payments, with increasing importance placed on rural development policy, along with decreasing market interventionism and a relatively high agriculture budget. As a country prepares to function in a common market under the CAP, adopting standards for agricultural statistics and their application in understanding, programming and implementing agricultural policy is of crucial importance.

The provision of comparable data and adopting statistical and agricultural policy notions and strategies is not only a precondition for successful pre-accession negotiations in the area of agriculture, but also facilitates efficient programming and implementation of the agricultural policy. This process should not be limited to government institutions, but should also include research organizations in the accession countries, as they can carry out analyses of the situation and the impact assessment analyses for the needs of the line ministries, and include much more the agendas of Trade Union organizations from these countries.

The Trade Union's agenda on future industrial policy development, include concerns regarding social dialogue and industrial relations, future privatization and restructuring, as well as economic and social issues of producers; from farmers, to SMEs in the sector. Increasingly economic and social interests in this sector come with huge resources and opportunities. Trade unions are very interested in challenges, new opportunities for job creation in modern agriculture, organic production, support services and infrastructural connections in supply chains, and see the green economy and agriculture as favourable opportunities for young educated people, (including women), dismissed from other employment in the transition period, to situate their interests in rural areas in a sustainable and social responsible way.

This is a constituent part of the democratization and modernization processes of agricultural policy. Setting up an efficient support structure for monitoring agriculture and agricultural policy is part of the accession process which is often underestimated by government structures; its absence could jeopardize the meeting of the political goals of the accession processes.

With the aim of setting up a network of analytical institutions and increasing the competence and capacities for agriculture and agricultural policy analysis this Study (which was financially supported by the Fredric-Ebert-Stiftung), is elaborated by deck research of relevant data of FAO, World Bank, national statistics and national reports of candidate and potential candidate countries, issues of agricultural and rural development, relevant data and information on agricultural policy measures and related budgetary transfers: all of which are based on pre-defined common content of the Study. The synthesis is mostly focused on cross-country comparison and comparison with the EU.

The study has six parts. The second part is related to agriculture and presents an overview of the macroeconomic situation in the Western Balkan countries, the role of agriculture in the economy, natural resources, farm structures, agricultural output and prices, as well as foreign-trade in agricultural and food products. An overview of organic production in WBC is given in that part too. The third part examines agricultural policies, starting with the qualitative analysis of agricultural policy in general, as well as its main pillars, the kind of measures related to the rural development, and summarizing the main findings of countries with support services: education for agriculture, information agriculture system, technologies, innovation function, research and development of related institutional frameworks of these sentential services.

Qualitative analysis is followed by the quantitative assessment of budgetary expenditures related to agriculture by agricultural policy measures. This represents a valuable attempt to comparatively analyze the agricultural policies of WBCs based on the common classification of agricultural policy measures.

In the fourth part is analyzed some of the main challenges that Western Balkan countries could meet on their way to EU membership and competitiveness and sustainability of agro industry. The main challenges towards progress towards EU accession includes: current membership status of WBC, challenges for the sector itself in that process, possibilities of accessing EU pre- accession funds, in general and by country. climate change and environmental risk, domains of WBC response, risk mitigation are also analyzed in this chapter. Further challenge and opportunities for WBC are Free Trade Agreements concerning trade, but also food safety and international standards requirements. Included in the fifth chapter is a SWOT analysis of: agricultural policy and support services of agriculture structure, products, of external macro and micro environmental actors, market opportunities, and critical opportunities for the agroindustry sector of WBC. The report ends with conclusions and recommendations related to the Western Balkan countries, Agribusiness and Agro-Industrial Strategies, Policies and Priorities for Achieving higher competitiveness, employability and sustainability in the Balkan region.

2. Recent Developments Of WBC, Agro-Industry Outlook

2.1. Macroeconomic indicators

After two years of recovery from the global recession, as a group the Western Balkan countries: Albania, Bosnia and Herzegovina (BIH), Macedonia, Montenegro, and Serbia are experiencing economic and fiscal problems in 2012: with a continuing rise in unemployment, decrease in consumption, investments, and exports. Credit recovery and fiscal consolidation are under threat as the environment has become much more difficult to navigate. After growing by about 2 percent annually in 2010–11, the combined real GDP of the WBs has shrank in 2012, with real output in Serbia declining by as much as 2 percent. The road to sustained recovery will be arduous: according to the World Bank Report (SEE No 6/2012) growth in 2013 is expected to average 1.6 percent and the risks may be formidable. Among the clouds on the horizon for 2013 are the global impacts of the U.S. "fiscal cliff," the uncertain recovery of the Eurozone, and high commodity prices—risks to which all the WB countries are highly vulnerable. Also worrisome for its households is the risk of a new food price shock, which could exacerbate poverty and put pressure on the middle class.

In 2009 almost 500 million people lived in the European Union. The population of the enlargement WB countries represented 21,478 million inhabitants, nearly 4,31 percent of the total EU-27 population. The average annual growth rate of the population in the EU was around 0.4% between 2000 and 2009, and in WBC were between 0.1% and 0.5%. In contrast, Croatia and Serbia recorded a decrease in their population size annually of 0.16%. The proportion of the population found in the age ranges below and above the working population varied widely. In the EU-27, Croatia and Serbia 15% of the population was aged below 15, compared to around 25% in Albania. Conversely, around 17% were aged over 64 in the EU-27, Croatia and Serbia, compared to 9% in Albania. Croatia and Serbia were the only countries showing a decrease in the size of the working age population, other WB countries saw decreases in this age group larger than the EU-27 fall of around 6%. Meanwhile, the population aged over 64 years of age rose in all territories except for Serbia, where it fell by almost 5%.

Table 2-1. Macroeconomic indicators of WBC 2009

	Population	GDP at current market prices (million EUR)	GDP per capita EU27=100	Real economic growth	Sovereign Credit Ratings	Inflation rate	FDI
	2009	2009	2009	2012	Sep 2012	2009	2009
EU 27	497 683	11785475	100	1.3		1.0	221734
HR	4 435	45379	64			2.2	1875
ME	630	2981	43	-0.9	BB+	3.4	944
MK	2 049	6676	33	-1.1	BB	-0.8	181
AL	3 185	8500	26	1.0	B+	3.5	680
BA	3 844	12268	31	-0.2	B	-0.4	361
RS	7 335	29963	37	-1.6	BB-	8.6	1410

Source: Eurostat (online data codes: nama_gdp_c and cpc_ecnagdp).

The unprecedented economic crisis which gathered pace in autumn 2008 has affected the EU-27. In 2009, *the gross domestic product* (GDP) decreased by 4.2% in the EU-27. The impact of the crisis on the Western Balkan countries varied depending on each country's economic structure. Croatia, and Serbia, which are more integrated into the global market, were heavily affected. In 2009, GDP fell by 6.8% in Croatia, and 3% in Serbia. Montenegro, which was also severely hit, due to its dependence on external financing, saw its GDP contract by 5.7% in 2009. In Bosnia and Herzegovina the impact of the crisis has been exacerbated by pro-cyclical fiscal policies with a high share of subsidies and social transfers in the budget. Croatia, Montenegro registered GDP per capita between 30% and 60% below the EU-27 average, while Albania, Bosnia and Herzegovina, Macedonia and Serbia were between 60% and 80% below the EU-27 average.

Increases in the service sector over recent years compensated for the decline in the agriculture, forestry and fishing sectors, and to some extent, in the industry sector. The only exception was Albania, where the figure for the service sector fell between 2000 and 2008, though by less than 2 percentage points to 57% in 2007. The growth of the service sector between 2000 and 2009 was particularly pronounced in Serbia; which recorded a rise of 12 percentage points.

Compared to the EU-27, the economies of the Western Balkan countries generated a considerably higher proportion of GVA from the agriculture, forestry and fishing sector. In 2009, the EU-27 recorded a value of below 2%, while for the latest year for which data is available, values range from just over 6% of total GVA in Croatia to almost 19% in Albania.

Under the terms of the EU's Stability and Growth Pact, EU Member States have pledged to keep *deficits and debt* below certain limits: a Member State's government deficit may not exceed 3% of gross domestic product while debt may not exceed 60% of GDP. The Western Balkan countries, having seen *general government debt* levels ranging between 26% and 36% of GDP in the period from 2000 to 2007, before a sharp increase to almost 88% of GDP in 2009. The debt ratios in the other Western Balkan countries were below 60 % of GDP in the latest years, though all saw a rise of public debt between 2008 and 2009. The current account deficits in the remaining Western Balkan countries all equaled less than 8% of GDP in 2009.

In the period from 2006 to 2009, the EU-27 and all the Western Balkan countries apart from Albania saw a peak in the rate of inflation in 2008, when the rates in the Western Balkan countries (recording increases) ranged from 5.8% in Croatia to 13.5% in Serbia, compared to 3.7% in the EU-27.

Foreign direct investment inflows to the EU-27 increased by 70%, from just over EUR 129 billion in 2005 to almost EUR 222 billion in 2009. Albania, Croatia, Macedonia, Montenegro and Serbia also saw an increase of FDI inflows between 2005 and 2009. Albania recorded by far the largest percentage increase, a rise from EUR 209 million in 2005 to EUR 680 million in 2009. In contrast, Bosnia and Herzegovina saw a decrease of FDI inflows between 2005 and 2009.

Exchange rate fluctuations can play an important role in determining the competitiveness of an economy, particularly with respect to export performance. The euro has been the currency of Montenegro since 2002, and the convertible mark of Bosnia and Herzegovina (BAM) is fixed against the euro. For the other Western Balkan countries, there have been stark differences in the development of national currencies against the euro over recent years. Albania, Croatia and Macedonia have seen their currencies remain largely stable against the euro since 2000, while the currency in Serbia deteriorated sharply. The exchange rate changes in Serbia were the most extreme between 2000 and 2005.

Employment rates fell in almost all Western Balkan countries in 2009. The Western Balkan countries will be associated with initiatives taken at the EU level to meet the goals of the Europe 2020 strategy, including the EU employment rate target. The unprecedented crisis in global financial markets which gathered pace in autumn 2008 led to the most severe recession since the Second World War, strongly impacting labour markets in the EU as well as in most of the enlargement countries.

Table 2-2: Employment rates (%) 2009

	Employment rate	Agricultural Employment %	Number of agricultural workers (1000)	Change to the previous year	Unemployment rate
EU 27	64.6	5.6			8.9
HR	56.6	14.1	221.7	5.6%	9.1
ME	48.7	6.5			19.1
MK	43.3	18.5	119.8	11.2%	32.2
AL	53.4	44.1	542.0	-0.6%	13.8
BA	40.1	21.2			24.1
RS	50.4	23.9	708.8	28.3%	16.1

Source: Eurostat (online data codes: lfsi emp

In 2009, the overall EU employment rate averaged 64.6%, down from 65.9% a year earlier. The fall between 2008 and 2009 was seen in all the Western Balkan countries apart from Macedonia. In the WBC, employment rates ranged from around 26% in to almost 57% in Croatia in 2009. Employment rates in the EU-27 as well as in most of the Western Balkan countries followed a generally upward trend, with Montenegro and Croatia seeing particularly large rises of around 12 and almost 7 percentage points respectively by 2008. By contrast, Albania and Serbia recorded sharp falls in employment rates between 2000 and 2005. The employment gender gaps in Croatia, Montenegro and Serbia were similar to those for the EU-27 in 2009. All the other Western Balkan countries recorded substantially higher gaps, ranging from 19 percentage points in Macedonia. In the latest year for which data are available, employment in the service sector accounted for just over two thirds of total employment in the EU-27, a proportion exceeded only by Montenegro among the Western Balkan countries; recording almost 73% of employed persons in services.

Unemployment rates rose in most of the Western Balkan countries in 2009. The unemployment rate across the EU-27 as a whole fell steadily from just over 9% in 2000 to 7% in 2008 before rising to almost 9% in 2009 as a result of the

crisis. Among the Western Balkan countries only Macedonia saw unemployment fall between 2008 and 2009.

Agriculture is by far the smallest of the three sectors in the EU-27, at almost 6% of the total labour force. Montenegro recorded very similar values in the latest year for which data are available. In contrast, just over 44% of Albania's labour force was employed in agriculture in 2009, though this was a sharp fall from the 2000 figure of almost 72%. The proportion of EU-27's labour force employed in industry and construction combined was almost 28%, exceeded only by Bosnia and Herzegovina, Croatia and Macedonia. Albania recorded the lowest figure with almost 20%, though this represented a sharp rise from the 2000 figure of around 7%.

2.2. Agro-Industry Outlook

Three indicators were used in order to measure the importance of agriculture: Agricultural value added as a share of GDP (%), share of agricultural employment (%) and the size of agricultural production.

However, *the agriculture sector's share in total GVA* declined by widely varying amounts in all the Western Balkan countries over recent years. In Macedonia, the agriculture sector diminished slightly, whereas in Serbia the share of this sector in the economy shrank by about half. In the EU-27 the industry sector's share in total GVA declined between 2000 and 2009 by just over 4 percentage points, with similar falls recorded in Croatia, Serbia and Turkey, and an even greater fall of almost 6 percentage points in Montenegro. Macedonia also recorded a decrease, though smaller, of almost 3 percentage points. On the other hand Albania and Bosnia and Herzegovina saw this sector growing slightly during recent years, by a maximum of 2 percentage points recorded in Albania.

Albania is an exception with by far the highest agricultural sector measured by both *agricultural value* added as a share of GDP and share of agricultural employment. The agricultural value added as a share of GDP was over half of the GDP in the 1990s and even in 2009 it was higher than the value added of industry (19.7%)

according to the World Bank database[2]. With a 58% share, the sector has a huge role in employment, but it was also much higher in earlier years. Croatia (agricultural value added as a share of GDP) and Montenegro (share of agricultural employment) can be found on the other side. In the last 20 years no obvious and continuous decreasing trend can be identified even the lowest values are far above the averages of the EU, which, according to Eurostat, were 1.6% (value added) and 4.8% (employment) in 2009. Moreover, these values include the newest Member States, Bulgaria and Romania, where there are significant agricultural sectors.

Regarding the output of agriculture, Serbia is the largest producer of the region. Its production was higher than that of the five other Western Balkan countries in 2009. Contrary to the EU where agricultural production is stagnating, the region shows a slightly increasing trend according to the FAO database. However, the sectoral structure of production shows remarkable differences, with livestock being close to crops in value for Albania and Montenegro but much lower in the other countries. The clearest example of the crop dominance is Macedonia where it accounts for 76% of total production. This is interesting, because Montenegro and the Macedonia are geographically similar (i.e. mountainous) countries, which does not favour crop production. The value of this ratio is 2/3 in the three largest countries (Serbia, Croatia and BiH). In accordance with the sectoral production, the lack of irrigation can cause huge losses in production under unfavourable natural conditions. From this aspect the Macedonia, where 2.7% of utilized agricultural area (UAA) is irrigated has the best position, while in the case of Croatia and Serbia these shares are only 0.25% and 0.51% respectively, according to the World Bank. But even the Macedonian value is fairly low. According to the Eurostat database, irrigation is more common in the EU (around 10%)[3].

[2] http://data.worldbank.org

[3] http://epp.eurostat. ec.europa.eu/

Table 2-3: Selected agricultural production (1000 tones) 2009

	Cereals	Sugar beet	Maize/ Area harvested (ha)	Maize Production (1000t)	Maize Yield (t/ha)
EU 27	296149	110410			
HR	3442	1217	296.910	2.182.5	7.35
ME	3		2.664	1.1	2.52
MK	609	58	32.466	154.2	4.75
AL	609	40	47.600	265.1	5.57
BA	1343		188.688	962.9	5.10
RS	8982	2798	1.208.640	6.396.3	5.29

Source: Eurostat (online data codes: apro_cpp_crop, apro_mk_pobta and cpc_agmain).

Table 2-4: Selected agricultural production (1000 tones) 2009

	Cattle	Pigs	Sheep and goats	Pork Production (1000t)	Yield (kg/ animal)	Cow milk Production (1000t)	Yield (kg/ animal)
EU 27	88300	151961	91154			134362	
HR	447	1250	695	131.0	76	838	3.850
ME	101	12	200	2.4	102	152	2.305
MK	253	194	849	8.3	98	343	2.636
AL	494	160	2540	12.5	67	1045	2.572
BA	458	529	1125	9.7	67	734	2.580
RS	1002	3631	1647	528.0	98	1488	2.647

Source: Eurostat (online data codes: apro_cpp_crop, apro_mk_pobta and cpc_agmain).

At country level there are some differences: *wheat production* is higher in Albania and Macedonia than maize; beef is more significant in Albania, BH and Montenegro than pork. Cow milk is dominant in every Western Balkan country. Goat and sheep milk are important in Albania and Macedonia but they have only slightly more than

10% share in total milk production (FAO database). Croatia had maize production of over 2 million tones and BH had almost 1 million tones. *The maize production* of the region has increased by 88% compared to 2000 (FAO database). Maize yields show huge differences in the countries. The highest figure was observed in Croatia (7.35 t/ha), while the lowest was in Montenegro (2.52 t/ha). With similar endowments to Montenegro, Macedonia was able to achieve a higher yield (4.75 t/ha). The three other countries can be characterized by yields around the regional average. Compared to 2000, the average yield of maize went up by 60% but these values are still at a relatively low level, even the Croatian one. They are far below the average of the EU-15, which was 9.26 t/ha in 2009 (Eurostat database). This indicates that the use of proper production techniques (quality seeds, proficiency, high-tech machinery, etc.) can result in higher outputs via increased yields even if the agricultural area is not extended.

The second important output is *pork production*. Although the cattle population decreased by 30% (from 4 million to 2.8 million) in the last 18 years, mainly due to the huge Serbian decline, the pig population seemed to be stable. Although the Serbian stock declined, the increase in the other countries' population compensated for that. In accordance with the headcount data, Serbia was the most dominant pork producer in the WBC.

Pork production shows a high correlation with the headcount data. The production structure has changed somewhat; the lower Serbian production was replaced by the doubled Croatian one. The high Serbian, Montenegrin and Macedonian yields should be noted. These values are around the average of the EU, where only Italy could realize 125 kg, whilst for instance Belgium and the Netherlands remained under 100 kg/animal (FAO database). The main reasons behind the low values are the low-scale production (Albania) and consumer preferences for young animals (BH). The high demand for young animals makes animal fattening less attractive and results in low yields in the meat sector. Regarding milk, Serbia produced the largest amount of milk in the region, but Albania was able to continuously increase its production and almost reached one million tones output in 2009. In the light of decreasing Serbian and increasing Albanian production, Albania would become the most significant milk producer of the region in the next few years. Regarding cow milk production, the region showed a growing tendency due to the significant

growth of average milk yield. The Croatian yield is by far the highest (3,850 kg/animal/year), but even this value was below the average of the EU, which was 6,707 for the EU-27 and 5,567 for the NMS (EC, 2010). It also indicates enormous efficiency reserves which could be activated by using cutting-edge technologies.

The WBCs have undergone significant reforms, adjustment and socio-economic transformation of the agricultural sector over the last twenty years. Nevertheless, the most important structural and socio-economic indicators of the new EU member states still show significant deviations compared with the EU-15 average, as there are profound differences among themselves. The transition in Western Balkan countries started at the beginning of 1990s, in a particularly complex economic, political and social environment, caused by the war, the disintegration of the common economic and financial markets and extensive population movements. In the case of Serbia, a particularly important factor in the dynamics of structural reform that should be included are the sanctions of the UN Security Council, and the hyperinflation that has seriously hampered the financial system.

The analyzed aspects of structural changes in the agrarian WBC's indicate that this process takes place in an uneven pace, and with different intensity in certain parts of the country. Winners in this process are the regions with the more developed agriculture and larger farms.

2.2.1. External trade and competitiveness

The EU is the main trading partner for the WB countries, over 75% of the exports from Albania went to the EU-27, in Montenegro less than 40% of the country's total imports arrived from the EU-27, while this was true of over 60% of imports into Albania and Croatia.

Table 2-5: International trade in goods, totals (million EUR)

	Exports		Imports		Balance	
	2000	2009	2000	2009	2000	2009
EU 27	849740	1094411	992695	1199196	-142956	-104785
HR	5188	7458	11327	15144	-6139	-7686
ME	461	277	974	1654	-514	-1377
MK	1178	1925	2105	3616	-927	-1691
AL	348	784	1587	3699	-1238	-2915
BA	908	1920	2928	5670	-2019	-3750
RS	1680	5630	3606	6691	-1926	-1061

Source: Eurostat (online data codes: ext_lt_intertrd, ext_lt_maineu and cpc_etmain).

Deficits on external trade in goods prevails in most of the Western Balkan countries The EU-27's exports of goods to the rest of the world grew by almost 30% between 2000 and 2009. In Albania, Bosnia and Herzegovina, and Serbia exports more than doubled over recent years. Serbia is the number one agricultural exporter of the region and exported USD 300 million more than Croatia. Only in Montenegro did exports fall (by almost 40%) between 2005 and 2009. The EU-27's imports of goods grew by just over 20% between 2000 and 2009. Croatia is the largest importer followed by BH and Serbia. The EU-27's trade in goods deficit in 2009 was just under 5% of total trade (exports and imports combined), a decrease from almost 8% in 2000. In both 2000 and 2009 the deficit in Albania was over 60% of total trade. The biggest change in this measure was in Serbia, which saw its deficit reduce from 36% of total trade to 9% between 2000 and 2009, and Montenegro, which recorded an increase from 36% to 71% between 2005 and 2009. Only Serbia has a trade surplus, all of the other countries are net importers of agricultural goods. In Albania, and Montenegro the share of exports in GDP did not exceed the EU-27 value. Imports to each of the Western Balkan countries were equivalent to a higher proportion of the GDP than in the EU-27, most notably in Macedonia and Montenegro, where imports were equal to more than one half of GDP in the latest year for which data are available.

The Albanian value is the closest to the EU average[4], while the other countries' values are between 14 and 17%. The trade deficit of the region was almost USD 2 billion in 2009, but BH accounted for 63% of this.

Regarding both exports and imports, the EU is the most important *trading partner* of the region. Three out of six Western Balkan countries are not yet members of the WTO: BH, Montenegro and Serbia have observer status.

The significant growth of national production resulted in a huge drop in import dependency in Albania, although the value of the index is still around 18%; which enhances efficiency problems. This value is itself very high, and taking into consideration the fact that agriculture contributes about of 20% GDP makes it even higher. In this case the Croatian value is the closest to EU-27 average (11.1%), while the slightly lower Serbian one is in accordance with the average of the NMS (8.3% calculated from the WTO database).

Analysis of *the structure of agricultural exports and imports* shows whether they are dominated by raw materials or processed products. In the case of exports, the value added is much higher and competitiveness is linked almost entirely to price. The structure of agricultural exports has shifted in a favourable direction in recent years as the share of raw materials has showed a decreasing trend (WTO database). The Serbian and Macedonian values are even at a lower level than the average of the EU (EU-27: 13.9%, EU-12: 15.2% calculated from the WTO database). But one should note that these values are still at a high level in the other countries, for example they surpass 30% in Albania and BH. BH should make more efforts to produce higher value added agricultural goods. According to the national endowments, it should focus on organic production instead of input intensive goods. Regarding agricultural imports, the opposite judgment applies: the higher the share of raw materials, the better the import structure is. The shares of raw materials within agricultural imports are, except in Serbia, between 3% and 8%, but they are generally at a lower level than for exports. In the EU these shares are almost the same as they were for the agricultural exports with no significant

[4] EU-27: 10.8%, EU-12: 9.6% calculated from the WTO database

difference among the Member States (13.6% for the EU-27 and 13.4% for the EU-12 calculated from the WTO database).

The share of food products and beverages in the households' expenditures has the highest share in Albania (57.8%), and the lowest in BH (35.2%). However, even the latter is much higher than the 19.4% average of the EU which includes the highest EU value of almost 50% for Romania (Eurostat database).

Productivity issues. An important input of production is the labour force.[5] The real agricultural employment was 21.2% in 2009. Except for a slight decrease in Albania, all of the countries showed an increase, especially Serbia. In case of Serbia it was the reason behind the increased share of agricultural labour force from 2008 to 2009. Agriculture is an important employer in Serbia due to the reduced employment opportunities in the other two sectors. This increase was also caused by the significant change in the tax system. It was regressive and imposed higher tax on low-income labour until 2007. Contrary to this, the EU can be characterized by continuous out-migration from the agricultural sector, particularly in the NMS. One of the tools for measuring productivity in agriculture is value added per worker, and this can be compared directly without further calculations.

Table 2-6: Value added per worker [constant USD 2,000] in six Balkans with a share of 76.3%

Albania	BiH	Croatia	Macedonia	Montenegro	Serbia
2.349	14.299	15.137	5.811	2.656	3.218

Source: World Bank

Albania has the worst situation followed by Montenegro (USD 2,349 and 2,656 respectively,), indicating enormous efficiency problems. BH showed the most notable growth but even that was not enough to catch up with the best performing country, Croatia. According to the World Bank database, the Croatian USD 15,137

[5] http://laborsta.ilo.org

measures highly as the EU average is USD 17,931, and much higher than the Hungarian or Romanian values (USD 10,948 and 8,993 respectively). Naturally, the development of value added per worker shows a close connection with the performance of the crop sector, which was heavily affected by the droughts causing lower efficiency. It is strengthened by two factors: the dominance of crops in the majority of the countries and the low share of irrigated land. The key areas of efficiency of the agricultural performance are agricultural production and yields of the main commodities. In the following part the three main products (maize, pork and cow milk) of the countries are examined. The reason for choosing these commodities is their dominance in the regional production. The most significant maize producer of the region is Serbia. The World Bank database used the official data (2.5%) for the calculation, which resulted in this high value.

The next important resource *is the available land used for agricultural production* (*agricultural area*) and within that the share of arable land. In the Western Balkans the most agricultural land can be found in Serbia, while the least was in Montenegro followed by Macedonia. The order basically follows the total size of the countries except BH and Croatia, where the bigger county has less agricultural area, although it should be mentioned that a significant change was made in the Croatian methodology in 2004, which resulted in a 40% decline in the agricultural area and almost 25% reduction in arable land. This added up to the highest share of arable land in Croatia in the region. Not surprisingly, the lowest values can be found in Montenegro and Macedonia, as both countries are basically mountainous areas. The decreasing agricultural area and the increasing arable land together might be indicative of a process of withdrawal of less favourable lands from production. *Utilized agricultural areas* remained stable in most of the enlargement countries: Macedonia recorded a large fall from 48% to 39% between 2000 and 2009 with 66% in Serbia. Almost all the enlargement countries had a greater area of UAA per head of population than the EU-27, where the estimated value for 2009 was 0.35 hectares per head. In 2009, the highest area per head, 0.82 hectares, was recorded in Montenegro, while the lowest, 0.29 hectares, was recorded in Croatia. Across the EU-27 as a whole, arable land accounted for around 61% of the UAA in 2009, a proportion exceeded among the enlargement countries by only Croatia and Serbia, where around 65% of the UAA was arable land. Permanent grassland accounted for around 62% of the UAA in Bosnia and

Herzegovina, a much higher proportion than in the other enlargement countries, where between 25% and 50% of the UAA was grassland. Land under permanent crops was by far the smallest part of the UAA in the EU-27 as well as in all the enlargement countries, accounting for less than 10% in all countries for which data are available.

Table 2-7: Land use, 2009 (1000 hectares)

	Total land Ares	Utilized agricultural area	Of which:			Total wooded area
			Arable land	Permanent grassland	Land under permanent crops	
EU 27	428502	177077	107316	57644	12076	153976
HR	5659	1300	863	343	88	2499
ME	1381	516				563
MK	2571	1014	420	500	35	943
AL	2875	1164	567	505	91	1043
BA	5121	1656	525	1029	102	2434
RS	7747	5097	3301	1459	297	2024

Source: Eurostat (online data codes: agr_r_landuse, demo_r_d3area, for_area and cpc_agmain).

One of the possible approximations of the development of technology in agriculture is the *equipment supply*: in Croatia the number of tractors increased from 38 to 2,188 tractor/100 km^2, and in Serbia 1,207 tractors/100 km^2. Besides the machinery, the unsatisfactory level of fertilizer use could be the reason for lower maize yields than in the EU. The Croatian values are the highest and the only one which increased compared to the previous year. The other countries use between 12 and 115 kg/ha.

Table 2-8: Number of tractors per 100 km² arable land in WB countries in 2008

Catager-ies	Albania	BiH	Croatia	Macedo-nia	Montenegro	Serbia
Agricultural holdings	394,9	515,0	449,9	192,4	43,2	778,9
>5 ha	394.6	400.0	385.7	184.4	28.6	604.4
5-10ha	0.2	90.0	42.6	6.3	12.3	131.4
<10 ha	0.1	25.0	21.6	1.7	2.3	43.1
UAA(ha)	427.3	2.444.0	1.077.4	264.4	136.6	2.869.0
>5 ha	425.1	Na	306.9	188.6	52.8	1.201.6
5-10 ha	1.3	Na	214.2	42.7	27.9	957.7
<10 ha	0.9	Na	556.3	33.1	55.9	709.7
Number of tractors per 100 km² arable land (No)	122	283	2.208	1.240	1.829	18
Average size	1.1	4.7	2.1	1.4	3.2	3.7

Source: World Bank

Table 2-9: Fertilizer use per 1 ha of arable land in WB countries in 2008.

	Fertilizer use (kg/ha)	Change to previous yeas
Albania	38	-32.1%
Bi/h	12	-42.9%
Croatia	388	23.6%
Maceodina	56	-15.2%
Serbian	115	-21.8%

Source: World Bank database

The majority of UAA is generally in private hands and the private sector dominates agricultural production, as well as the government owned or used (directly or by governmental companies) area. In addition, it is an interesting characteristic of the Western Balkans that some agricultural land is not cultivated. It is especially

typical in Serbia, where around 20% of the available agricultural land is not in use. The number of agricultural units refers to the size of agricultural area. Generally countries with higher UAA have more agricultural holdings. Besides their number, their distribution is also very important. It seems to be a general phenomenon of Western Balkans' agriculture that the majority of the producers are small. The 10 hectares maximum was in use until the mid-1980s. At least two thirds of the production units belong to the 'under 5 hectares' size category in each country. Moving toward bigger size categories, the number of holdings is continuously decreasing. The distribution of UAA shows a better picture as farms in the lowest size category use a lower percentage of the total UAA. One should note that agricultural production is dominated by small farms in Macedonia and Albania. According to the average size, Albanian farms are the smallest with 1.1 ha/holding. In the other countries the majority of UAA can be found in the other two size categories (5-10 and above 10 ha). Croatia is special from this aspect as the highest share of UAA is in the largest size category (above 10 ha). But the average farm sizes are at a very low level and far behind the EU's 15 ha/ farm which also counts as a low value at international level.

Private farms can be characterized by low sizes starting from 1.1 (Albania) to 4.7 (BH) ha/farm. It is low in itself, but in most of the cases they are formed from small parcels, which makes the production more costly and less efficient. The major problem is the geographical distribution of these parcels: they are very often located far from each other. Moreover, this type of land distribution is one of the most important barriers of a well-functioning lease market. Small-scale production seems to be the bottleneck of the Western Balkan's agriculture. It is closely related to competitiveness. Consolidation of farm parcels should be a key issue of the agricultural policies. For example in Albania its governmental promotion of leasehold. It was 1.2 ha/farm in Albania and 1.7 ha/farm in the Macedonia in 2008 .

A well-functioning land market requires reliable, precise and up-to-date land registers, which do not exist in the majority of the Western Balkan countries. The Croatian shift from the old cadastral records to the Eurostat-compatible one served this purpose. It has utmost importance from the aspect of EU accession, as the implementation of CAP requires not only sufficient institutional background but also available and reliable data sources (for example for the FADN system).

The *farm structure* in WBC was not significantly changed during the transition period, it is fragmented, with low productivity. The unfavourable economic position of agriculture has been stabilized and budgetary incentives for the sector increased. Consequently, large farms are becoming important consumers of input and machinery, as well as more active players in the land and the financial markets. This model of restructuring is observed only in the more developed regions of the country, thus making deeper the already big regional divergence.

During the transition period, GAO had smaller amplitude variation than the transitional countries in the region, but production is still lower than the pre-transition period. This situation is caused by the traditional factors that are noted in other countries, with a few specificities: extremely unfavourable weather conditions during the last decade (from 2000 to the present were four dry years), isolation of the country during the first decade of transition and slower recovery of the rest of the economy. In such circumstances employment in agriculture remains high, with not enough room for a reduction of hidden unemployment in the sector. Agricultural labour and land productivity are lower than in other transitional countries, mostly due to the high employment in agriculture.

The formation of new forms of value chain began relatively late (early 2000's).

The *privatization of processing industry* and a more favourable political climate in the region, created the conditions for operation of modern and efficient production chains. Today, the retail market is dominated by regional/national retail groups that have started a regional consolidation process. The country's progress in EU integration would contribute to faster adoption of quality standards and greater competitiveness of local stakeholders. Such restructuring is essential before the upcoming liberalization of the domestic market.

During the second half of the decade, a relatively stabilized system of funding, and financial markets have been established and land registration improved, which has contributed to the activation of the land market and the growth of total investment.

Agricultural prices are around USD 150/tons in the big producer countries (Croatia, Serbia); while in the other countries they are above USD 300/tons. It is very similar to

the EU's pricing: the bigger producer countries are closer to the lower price center, while the smaller producer countries are faced with higher prices. Regarding pork, prices varied between USD 2,500 and 2,800/tons, while in Albania it surpassed USD 5,000/tons. (In general, Albania can be characterized by high agricultural prices due mainly to low scale production. Compared to the averages of the EU, it is extremely high as the most significant European producers (e.g. Germany, France or the Netherlands) are below USD 2,000/tons[6]. The highest milk price can be found in Macedonia. It was USD 572/tons in 2008, which is higher than in the majority of the EU Member States. The other countries have average prices below USD 500/tons, which is line with the EU's prices. Regarding milk prices, there is no place for further price convergence.

Table 2-10: Producer prices (USD/tons) in WB countries in 2008

	Albania	BH	Croatia	Macedonia	Serbia
Maize	393	309	141	358	177
Pork	5007	2479	2732	2801	2777
Cow milk	442	484	499	572	425

Source: FAO

2.2.2. Social issues

Wages and salaries in the EU-27 are higher than in the WB countries. The EU-27 recorded a figure of EUR 2,609. Croatia recorded the next highest nominal wages and salaries, at just over EUR 1,000 per month, while in all the other enlargement countries for which data are available they were below EUR 500 per month. Total household consumption expenditure can be broken down into twelve categories by a system known as COICOP: housing (including fuel), food (excluding alcoholic drinks) and transport. In total, the EU-27 recorded 50% of spending on these essential categories. It was lower than in any of the enlargement countries, though in Bosnia and Herzegovina the figures were only slightly higher. In all the

[6] FAO database

remaining enlargement countries, around two thirds of household spending went on housing, food and transport. Croatia and Serbia recorded similar figures to the EU-27. Albania and Montenegro both recorded substantially lower values of around 2% of GDP. In the latest year for which data is available, spending on social protection was just over 25% of GDP in the EU-27. It was higher than in any of the enlargement countries for which data are available. Croatia and Serbia both recorded values of around 16%, while in Albania 10% of GDP was spent on social protection.

Table 2-11: Wages and salaries

	Average nominal monthly wages and salaries(EUR)			Index of real wages and salaries (2000=100)	
	2000	2005	2009	2005	2009
EU 27	2329	2426	2609	120	134
HR	638	844	1051	113	121
ME	181	213	463	140	195
MK	168	206	263	114	159
AL	113	216	310		
BA	190	275			
RS	76	308	470	209	245

Source: Eurostat (online dasta codes: tps00175,lc_lci_r1_a and cpc_pslm)

The rapid increase in food prices during the summer months of 2012 has drawn considerable attention around the world, as the memory *of rising poverty* and political and social unrest during the 2007-08 food crisis remains fresh. A combination of adverse weather shocks and historically low commodity stocks, coupled with limited fiscal space for mitigating measures, makes it harder to protect poor and vulnerable households from the negative effects of food price spikes. While the WB region has been more insulated from the fluctuations in world prices in the past, consumption patterns, particularly among the poor, could make even relatively small increases in food prices difficult to cope with. The pass-through

from world to local prices during the most recent (2011-2012) period continued to be low for most WB countries with the exception of Serbia where more than 50 percent of the increase in world food prices was reflected in domestic prices. Given their higher share of food in household budgets, households at the bottom of the welfare distribution are likely to be affected the most by these increases. Simulations based on household survey data suggest that a 5 percent increase in food prices (similar to levels experienced in WB countries in 2011) could increase poverty by a full 2 percentage points in Macedonia, with smaller impacts in other WB countries. The higher volatility of commodity prices will require a concerted policy response that should combine continued strengthening of the capacity of social safety nets to respond to crises, and agricultural programs aimed at enabling the supply response. Food is a significant share of household spending in WB countries, particularly for some of the most vulnerable groups, so that even small increases could make life difficult for large numbers of households—especially since after years of sluggish growth WB households may have exhausted their coping strategies. Also, other possible price rises, such as for energy, might compound the strains on their budgets. The WB region was hit directly by adverse weather, making the global impact stronger than during the last crisis. Agricultural commodity prices were especially affected by higher energy costs, unexpectedly frequent adverse weather conditions, and diversion of some food commodities to the production of biofuels. The WB region might now be more vulnerable to food price increases than in the past.[7] Serbia's situation was to some extent driven by the recent drought: production of maize, the country's large export, is expected to reach only 3.5–4 metric tons (MT) this year—a massive shortfall from the spring estimate of 7 MT or the 6.3 MT achieved in 2011. Food prices went up less in WB than the global 16 percentage point increase between December 2011 and September 2012 (10 percent of that between June and September). This is partly because food consumed in lower-income countries is mostly produced locally, so that the pass-through from world to domestic prices tends to be less than for other goods, even relatively contained price increases could cause significantly more poverty in the WBC. The

[7] Since January Serbia has experienced the largest increases in food prices during 2012. Between October 2011 and October 2012 nominal food prices increased by roughly 3 percent in Albania, BIH, by 5.9 percent in Macedonia, 6.8 percent in Montenegro, and by 17 percent in Serbia where October prices were 9.3 percent higher than in June .

extent to which households are vulnerable depends primarily on four factors: the magnitude of the price increase; how much of the household's budget is devoted to food; whether food is purchased or self-produced; and whether prices affect households only as consumers, or as both consumers and producers. There seems to be a new reality of high volatility in food prices, and the price spikes are likely to put significant strain on household budgets already weakened by years of sluggish growth. This will particularly affect the most vulnerable, just when macroeconomic constraints may limit the scope for policy responses. Adapting to this new volatility will require both short and long-term measures. Short-term measures include:

- Clarify emerging trends, by understanding how price trends affect consumer and producer incomes, through consulting information provided through multinational efforts (e.g., the G20 Agricultural Markets Information System, AMIS) or regional initiatives (e.g. the Eurasian Center for Food Security, ECFS),
- Provide support through safety nets, and agricultural programs (such as Global Food Price Crisis Response Program (GFRP)-funded seed/fertilizer/fodder provision to enable supply response in crop systems and to avoid destocking in livestock systems). Prudent use of commodity reserves should also be considered,
- Avoid subsidies to non-food crops and export bans that amplify regional and global market disruptions. Such bans are also not effective measures to lower domestic prices if countries are net importers of the commodity subject to the export ban.

Table 2-12: Simulated Change in Poverty from a 5 % Increase in Food Prices (Percentage points)

	US$ 2,5/day			US$ 5/day		
	Urban	Rural	National	Urban	Rural	National
Albania	0,90	1,70	1,30	1,60	2,40	2,00
BIH	0,20	0,20	0,20	0,60	0,60	0,60
Kosovo	1,70	2,70	2,30	1,00	1,20	1,20
Macedonia	2,40	2,40	2,40	1,00	1,40	1,10
Montenegro	0,00	0,20	0,00	1,20	0,60	1,00
Serbia	0,20	0,30	0,20	1,20	1,60	1,30

Source: SEE6 Report, 2012, WB

Medium-term measures should be directed to further investment in safety nets and the agricultural sector. These include land fragmentation across a large number of small producers who can market their products either informally or with relatively little bargaining power vis-à-vis traders and with limited access to credit, the scant provision of public goods such as research and extension services, market infrastructure and natural resource management, and the need to reform agricultural support for farmers to provide incentives to modernize and become efficient. Subsidies alone are unlikely to help farmers overcome these challenges. Most WB countries are well-placed to implement such an agenda. Parts of their safety nets are relatively well-targeted (social assistance of last resort, child allowances) and can expand in coverage or in generosity to address the consequences of a food price shock. As shown in above Figure 2-12, however, there is significant variation across countries in terms of targeting, coverage and generosity.

2.3. Organic production in WBC

In the EU, farmland under organic cultivation increased in the same period from 6 million ha to over 8 million ha, which is equivalent to a growth of 8-10% per year. Such expanding acreage is a response to the growing demand for organically produced food products with a current retail sales value of €18 billion, as opposed to €11 billion in 2003. As consumption of organic food products in the EU grew faster than production, imports from third countries have increased proportionally. Definite figures on imports from non-EU countries do not exist, since the EU's Harmonized System Codes of traded products does not distinguish between conventional and organic. However, increasing imports over the past ten years may be gauged by the number of registered importers of organic produce into the EU, which in 2009-12 increased from less than 500 to well above 3,000.

Although organic farming in the Balkans is still fragile, it is already an important driver for the development of the primary sector thanks to the dynamism of its new stakeholders and chains of production, the consolidation of legal frameworks and a significant overhaul of traditional objectives in food and local production systems. Goals in organic food production are: *Croatia 8% agricultural land organic by 2016; Serbia 8% certification agencies recognized by the MA; Bosnia and Herzegovina grass-*

roots initiatives recognized by sectorial policies; Montenegro and ecological state with a slow start for organic farming; Albania olive growing-an opportunity realized for launching the sector; Macedonia 2% of agricultural land organic. These trends suggest that target markets for organic products from Serbia are primarily those of EU countries that do not yet show signs of saturation, and are also large enough to absorb additional produce. These are Italy, France, UK, and Germany in particular.

Demand is growing much faster than classic food production. It is this trend which propels economies to translate organic food manufacturing potentials into export opportunities.

2.3.1. Organic land, certified producers and products

At the regional level, Croatia turns out to be the country with the strongest sector in terms of agricultural land allocated to organic production. The surface area used for organic farming exceeded 1% of the total between 2008 and 2009 and in 2010 there were over 1,000 certified producers. Macedonia and Serbia follow Croatia, both in terms of the hectares of agricultural land allocated to organic production and the number of producers. Despite structural weaknesses in both countries, growth between 2006 and 2011 was encouraging, as well as the increasing attention to the sector from both private investors and institutions. *In Albania*, despite a fairly long history (the organic movement started in 1997) and favourable climate conditions, organic production has not yet reached the results that had seemed achievable in the short term. Although the number of certified producers is slowly growing, the surface area dedicated to organic production is still limited. *Bosnia Herzegovina and Montenegro*, albeit for different reasons, still show some serious structural limitations: in Bosnia the 'pioneers' of organic production are just under 50 units and in Montenegro the amount of land allocated to organic production is extremely limited. In both countries, as well as in Albania and to a slightly lesser extent in the rest of the region, the actual land formation, mainly characterized by mountainous areas, has led to a rapid and significant growth in the harvesting of wild plants.

Table 2-14: Organic production in the WBC: certified farmers and land[8]

Country	Year	Total UAA (ha)	Organic surface (ha)	Wild harvest areas (ha)	Certified farmers
Albania	2010	1,122,000	284	251717	137
BIH	2009	2,136,000	691	220,000	39
Croatia	2010	1,289,000	23,000	Na	1,125
Macedonia	2010	1,064,000	5,228	Na	562
Montenegro	2010	516,000	3,561	101,801	67
Serbia	2009	2,065,000	8,500		130

Source: Collated from national information

The most significant produce common to almost all the countries of the region is that of small fruits (cherries, strawberries, raspberries, blueberries and blackberries), aromatic and medicinal herbs and some types of cereals. Fruit and vegetable production is significant in Croatia and is growing, for some forms of cultivation, in Albania, Macedonia, Montenegro and Serbia In the livestock sector, the most determined steps forward have been made by Croatia, Macedonia and Montenegro mostly in sheep and goat farming. Whereas for honey, which shows some examples of excellence in Bosnia Herzegovina and especially in Macedonia, the tradition is strong in the entire region and the development prospects for organic production within this niche are significant.

[8] Source: Albinspekt, MAFWN(RS-BA) (FBIH), (HR), (MK), (ME), MAFWM(RS),2011

Table 2-15: Agricultural products and processed foods

Country	Main products	Main processed foods	Type of trade
Albania	Aromatic and medicinal herbs, small fruits, olives	Juices and jams, olive oil	Export
Bosnia and Herzegovina	Cereals, aromatic and medicinal herbs, small fruits, mushrooms, honey	Flours	Export
Croatia	Cereal, fruits and vegetables, aromatic and medicinal herbs, olives, griped	Juices and jams, olive oil, wine, essential oils	Export internal market
Macedonia	Cereals, fruits and vegetables, milk and sheep meat, honey	Jams, juices, cheese	Export
Montenegro	Aromatic and medicinal herbs, fruit, sheep meat, sheep and goat milk	Jams, juices, cheese	Export
Serbia	Small fruits, fruit and vegetables, mush-rooms, cereal	Juices and jams	Mainly export

Sources: institutional sites

2.3.2. Organic market

At the regional level the internal market of organic products is still limited by a slow-growing demand, due to both the lack of purchasing power by a large proportion of consumers and to a limited awareness of the values and benefits of organic produce. A major role is also played by a deep-rooted skepticism based on the conviction that purchasing directly from the farmer or through informal relational channels - which is still a wide-spread habit - is more than enough to guarantee quality and healthiness, despite no guarantee of the products being organic. It is no surprise then that organic consumption has taken off mainly in large cities, where incomes are higher and information circulates more easily. This is especially true for the younger generation in that they have weaker ties to the countryside and greater difficulties in reaching a trusted farmer and in re-establishing networks that allow them to keep up informal commercial channels.

It is mostly *the educated classes* and high earners that support the organic market, as well as young families and returned emigrants who discovered the benefits of organic production while abroad for work or study purposes and the tourist sector. Croatia, for instance, during the summer peak season registers the effects of the influx of tourists on the consumption of organic products. What should also be noted is that the classic organic consumer is not always consistent: beside a limited group that purchases organic products systematically, is a larger group that approaches the sector only on an occasional basis.

In the period 2008-2011, the demand for organic products grew in almost all countries, albeit at a contained pace because of the economic crisis that brought salaries down, which thus had negative implications on consumption. Overall, the rise in demand is shown by the increase in attention to the sector by different distribution channels. Nevertheless, most of the products for sale - organic as well as for other niche consumer demands, such as macrobiotic and gluten-free - still rely on imports from other European countries, i.e. Germany, Italy and Spain. Local products, except in the case of Croatia where the range is greater, are generally limited to flour, pasta, fruit juices, jams, honey and herbal teas. Fresh products, although growing, are still limited.

Organic products are gaining space on the shelves of large organized distributors: in almost all countries commercial chains. A limited number of organic products is also available in most chemists, especially herbal infusions and, in some specialized personal care chains, such as the German group Dm *Drogerie Markt*, which promote an assortment of teas, juices, jams, biscuits, pasta and other 'dry' products. Direct sales are still limited because of the small number of certified farms. Road-side vendors, to be found mainly in busy areas during the summer months, generally still sell traditionally-farmed produce, often linked to informal commercial channels. Croatia is an exception, followed by Macedonia and Serbia, where direct sales are growing also thanks to the increase in the number of organically certified farms and rural tourism. Online sales and box schemes - meaning the purchase of baskets with items proposed by the producer - are also very limited. The first initiatives of this kind were launched by farms, such as *Eko Sever* in Croatia, and associations, like *Terras* in Serbia. Among the sales channels, restaurants should not go unmentioned, as they are often the expression of important social and

cultural trends. Organic food is used especially in some high level restaurants and in those offering vegetarian and macrobiotic cuisine: it is not by chance that a combination of organic-vegetarian is one of the most recurring. There are organic and vegetarian restaurants and cafés in Belgrade, Novi Sad, Ohrid, Sarajevo, Skopje, Zagreb and other cities. In many cases, the supply of technical aids authorized for organic farming, such as fertilizers and plant defense products, is also limited. The difficulties in procuring such products through traditional distribution channels constitute an additional barrier to the development of the sector.

2.3.3. Support bodies and services

Weak or only partially-implemented legislative frameworks[9] are also reflected in labeling regulations: a crucial aspect for guaranteeing complete information, clarity and transparency to consumers. At the regional level the situation is extremely diverse: Croatia, Macedonia and Serbia have equipped themselves with a national logo; in Albania, Bosnia and Montenegro the logos of local certification bodies are being used (Albinspekt, Organska Kontrola, Monteorganica), often accompanied by internationally recognized labels. The situation is quite similar when it comes to the elaboration of a sector strategy, with Bosnia still showing strong institutional weaknesses, made worse by difficulties in coordination between the two Entities. In general, specific formalized action plans (as in Croatia, Macedonia and Serbia) and the achievement in some cases of an important role in agricultural development planning (as in Montenegro) have enabled organic farming to assert itself and determine the development of specific financial measures aimed at the sector's

[9] The point of reference for all countries is EC Regulation No 834/2007 (followed by Reg. (EC) No 889/2008 on implementing conditions) aimed at simplifying the matter for both agricultural producers and consumers, that, since January 2009, has annulled the previous EEC Regulation No 2092/91. With the new Regulation, only organic produce that contains at least 95% of certified ingredients can be labeled as such. For produce that cannot be labeled as organic, however, it is possible to list single certified ingredients in the composition. Besides such simplifications, the list of authorized substances remains unvaried and the ban on genetically modified organisms is firm.
At the regional level the only country still lacking national legislation is Bosnia Herzegovina, due to its fragmented institutional system: in Republika Srpska a law exists, yet it is not in accordance with EC Regulation No 834/2007; in the Federation the draft law is being held up by Parliament. In the other countries a legislative framework has been set up

development. The subsidies referred to are very limited, both in absolute terms and in proportion to the overall agricultural budget. They are, however, significant in stimulating dialogue among institutions, producers and other interested stakeholders.

In Croatia and Serbia the number of certification bodies is particularly high: in Croatia and Serbia, despite a significantly lower number of certified farms (1,125 and 130), there are, respectively, 6 and 8; in Albania, thanks partly to collaboration with the Swiss Bio-inspecta, the Swiss State Secretariat for Economic Affairs' (SECO) and the Swiss Agency for Development and Cooperation (SDC), Albinspekt was certified according to the Law EN 45011 - that defines the general requirements for bodies managing product certification systems - by the German accreditation body DAkkS GmbH (Deutsche Akkreditierungsstelle GmbH) and by the Albanian Directorate for accreditation. In Bosnia, Organska Kontrola is active and accredited by the International Organic Accreditation Service (IOAS) according to IFOAM standards, IFOAM Accreditation Criteria (IAC) and ISO requirements (for bodies that manage product certification systems).

At the regional level, besides the bodies recognized by the agricultural ministries of the single countries, there are other certifying organizations operating in the area, either as members of specific projects or due to their involvement in certifications for their own national market or the European one.

Research and education are key elements in a sector that needs to be modernized and become competitive. At the centre of this process is the farmer, defined both as a direct grower (according to the Italian legal framework 's/he who practices a profession mainly based on his/her own work and that of his/her family members') and as an agricultural entrepreneur: s/he whose work involves doing business in one of the following areas: land cultivation, forestry, livestock farming and the like. Agricultural work has become more complex, because of the opportunity to use new technologies and agricultural practices; bureaucratic and administrative obligations (formal requests for public subsidies, administrative obligations deriving from the certification process); and environmental conditions. Alongside the farmer, other professional figures have sprung up, such as oenologists, inspectors, cheese experts, that require technically complex skills and in-depth knowledge of the

territory. The Western Balkan professional institutions and University departments (agricultural, forestry, veterinary) linked to the primary sector, still seem to use traditional thematic approaches and methods, which are often not up-to-date and lack the interdisciplinary approach, so typical of European planning. This situation basically reflects the distribution of the agricultural budget and policies.

3. Agro-Industry And Rural Development Policy And Support Services

3.1. Introduction

Priority issues in the WB countries for the support of the development of agriculture and the food industry are agricultural policy and budgetary support, as well as education and human capital, information agricultural system and research and innovation. Besides these, very important areas are food safety and border protection issues which place growing importance on Free Trade Agreements of WB countries; themes which are analyzed in this chapter.

In the last decade, there have been quite substantial changes to agricultural policy in most WBs. In some countries, budgetary transfers to agriculture have been increasing rapidly, whilst in others they have fluctuated (Albania and Serbia). Compared to the EU, funds for supporting agriculture are still relatively low. The exception is Croatia, which already in 2007 recorded a much higher level of support to agriculture per inhabitant or per area than some EU Member States (the Baltic States, Romania and Bulgaria). A low level of budgetary support is, however, not unusual for the countries

at such a level of economic development. Indeed, it is relatively comparable with levels in the new Member States at the beginning of their accession preparations, i.e. four or more years prior to accession. A wide range of support instruments and measures are applied across the WBs. However, market support measures have lost importance related to price and trade liberalization during transition. Border protection is still applied in all WBs, but its effectiveness is rather limited due to free trade agreements signed in recent years (CEFTA, EU). Export subsidies are used in Serbia only. Other market support measures (market intervention, administered pricing) are less important or nonexistent. In recent years, direct producer support has been the main element of agricultural budgetary transfers and also the major factor of growth in budgetary funds. In nearly all examined countries, crop and livestock production is supported through price aids, area and/or head age payments and input subsidies, which are all forms of support that are not in agreement with the reformed Common Agricultural Policy (CAP). Payments based on historical rights are scheduled to be introduced in Croatia in 2011. The implementation of direct payments according to the EU rules has also not been in place in any WBCs. Only in Croatia and partly in Macedonia have some important steps in this direction already been made. Rural development policy is generally subordinate to production support. Funds aimed at supporting rural development are much lower, although show an increasing tendency. These funds are mainly intended for restructuring agriculture through investment support, which have been gaining importance as preparations for the approaching accession continue. All countries have been preparing, and some (Croatia and Macedonia) have already started, to implement rural development policy according to EU rules. However, progress has been relatively slow, since rural development is a demanding policy, and also because these countries have different priorities. In this context, only a small proportion of funds are related to environment and countryside measures (the 2nd axis of rural development policy). There is some support for organic production, agricultural genetic resources, and some additional support for hilly and mountainous regions, but it is very limited given the potentials and possibilities provided by EU policy. General awareness for the environment, less favoured areas and animal welfare issues is relatively low. This policy is not a priority, which is in a way understandable, as it is difficult to find interest and rationale for such measures in the areas facing even extreme rural poverty, and where subsistence farming prevails. Even less funds are intended for the rural population (the 3rd axes of rural development policy).

There is a certain conflict with the EU regional policy approach, which in these countries lags behind even more than rural development policy. Support for public services in agriculture is present in all WBs. Particularly the veterinary and phyto-sanitary areas have been undergoing substantial changes, since this is a priority in the EU integration processes. However, smaller funds and lower attention is given to development in extensions, research and training activities, which indirectly hinders faster development of agriculture.

3.2. Agricultural Policy and Budgetary Support

In recent years, all of the WBs adopted long or mid-term strategic documents, where objectives and priorities for agriculture and rural development were set. In general, the strategic goals are more or less harmonized with EU principles, and can be summarized as ensuring stable production of quality food at reasonable prices and food security; sustainable resource management; increase in competitiveness and ensuring an adequate standard of living (income) for agricultural producers and the rural population. However, in terms of operative programs and the implementation of agricultural policy, as well as adjustment to the CAP, quite large differences exist between countries.

Croatia is well advanced in harmonizing its legislation and programming documents with the EU, especially in the field of rural development, where SAPARD (2005-2006) and IPARD (2007-2013) programs were prepared as a basis for pre-accession support, and were financed and implemented according to EU rules. Some elements of harmonization can also be found in Macedonia, where the IPARD program was prepared and implemented, and Special Accession Program for Agriculture and Rural Development in Montenegro, where at the programming level, all documents (strategy, national program, legislation) were prepared according to EU principles. Rural development programming documents based on EU rural development regulations were also adopted in Albania and drafted in

Serbia. Bosnia Herzegovina has a specific situation since there is no unique ministry of agriculture at the state level. There are two separate strategies for agriculture and rural development at the entity level, while agricultural policy is partly implemented even at the lower levels (cantonal). Although the WBs programming documents and planned activities are closely related to EU integration, agricultural policy is still implemented mostly based on annual programs of budget allocation, which are not stable in terms of funds, support measures or eligibility criteria.

3.2.1. Agricultural policy measures

3.2.1.1 Market and direct producer support measures

The level of liberalization on agricultural markets is quite different between countries. Border protection is the subject of agricultural policy in all WBCs. In recent years the levels of border protection have been reduced (mostly related to WTO negotiations) and quotas (except preferential) have been abolished (or not introduced at all). Ad valorem custom duties are set at relatively low levels in Albania, Bosnia Herzegovina, and Macedonia (0% to 15%), while in Serbia, Croatia and Montenegro, custom duties for some products are higher (up to 40 %). All Western Balkan countries have signed several free trade agreements (most important being CEFTA), which significantly reduced effective foreign trade protection. In general, one can say that in the WBs the level of trade protection is relatively low. Forms and the importance of market support measures are:

- Border protection,
- Export subsidies, (refunds) are only an important market support measure in Serbia. In other WBCs, this measure has not been implemented.
- Market intervention, formally exists only in Croatia and Serbia, but in recent years intervention buying-in has seldom been implemented. Of other market support measures, administered pricing is implemented in Bosnia-Herzegovina (for wheat and rye).
- Direct producer-support measures are the most important instrument of agricultural policy in all the WBs.

All basic forms: direct payments based on output, (price aids which are still quite

important in all WBs, but especially so in Bosnia Herzegovina), direct payments based on area/animal, variable input subsidies (the most widespread subsidy form implemented in all countries significant in Macedonia and Croatia), except decoupled payments, are introduced. However, the composition of the support differs by country. The use of inputs (seeds, fertilizers) is also subsidized. In Serbia, input subsidies are the most important form of direct producer support. The decoupling process has not started yet in any country, though it is planned to begin in Croatia in 2011.

3.2.2. Structural and rural development measures

In most countries, structural and rural development policy is in the shadow of market and direct producer support policy. The only important measure in this group is investment support. There is no special program to support agriculture in less favourable areas (LFA) in any country, although the proportion of such areas is large in most WBCs. In some countries (Croatia, Montenegro, Serbia) production in LFAs is supported by a higher unit value of some regular subsidies compared to other areas. Forms of structural and rural development measures have an impact on: competitiveness, environment, LFA payments, environmental payments (such as Agro-environmental measures related mostly to organic farming and the conservation of agricultural genetic resources, while support to rural areas is mostly limited to rural infrastructure and farm tourism), rural economy and population.

3.2.3. General measures related to agriculture

Support for public services in agriculture is present in all the WBs. More attention to veterinary and phyto-sanitary areas can be seen in candidate countries. If the importance of the programs were judged by the extent of agricultural budgetary funds allocated for that purpose, then one could say that the importance of public services is small in all WBCs, often funded from other sources (donors, other ministries), but without long-term financing it is hard to expect the development of public institutions needed to more quickly develop agriculture.

3.2.4. Budgetary support to agriculture

In the WBs, agricultural support through budgetary funds has gained in importance, especially in recent years.

Table 3-1: Total budgetary support to agriculture (mil €.)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Albania	54.5	43.9	50.8	53.0	53.6	34.6	46.9	43.2	47.1
BIH	7.0	14.2	15.4	18.6	24.7	33.1	46.4	69.9	86.1
Croatia		201.4	240.5	278.3			371.4	431.4	
Macedonia			2.5	2.5	8.6	8.4	17.5	17.2	44.7
Montenegro		6.2	4.2	5.3	5.8	5.7	7.8	9.7	12.7
Serbia					188.1	135.0	165.5	176.4	265.8

Source: APM Databases

Compared to the EU 27, budgetary transfers to agriculture in the WBs are relatively low according to both relative indicators. However, the actual level of support in most WBCs is quite comparable with levels in some NMS at the beginning of their accession process. The exception is Croatia, which in 2007 already recorded a much higher level of support to agriculture per inhabitant and per area than some EU Member States (the Baltic States, Romania and Bulgaria).

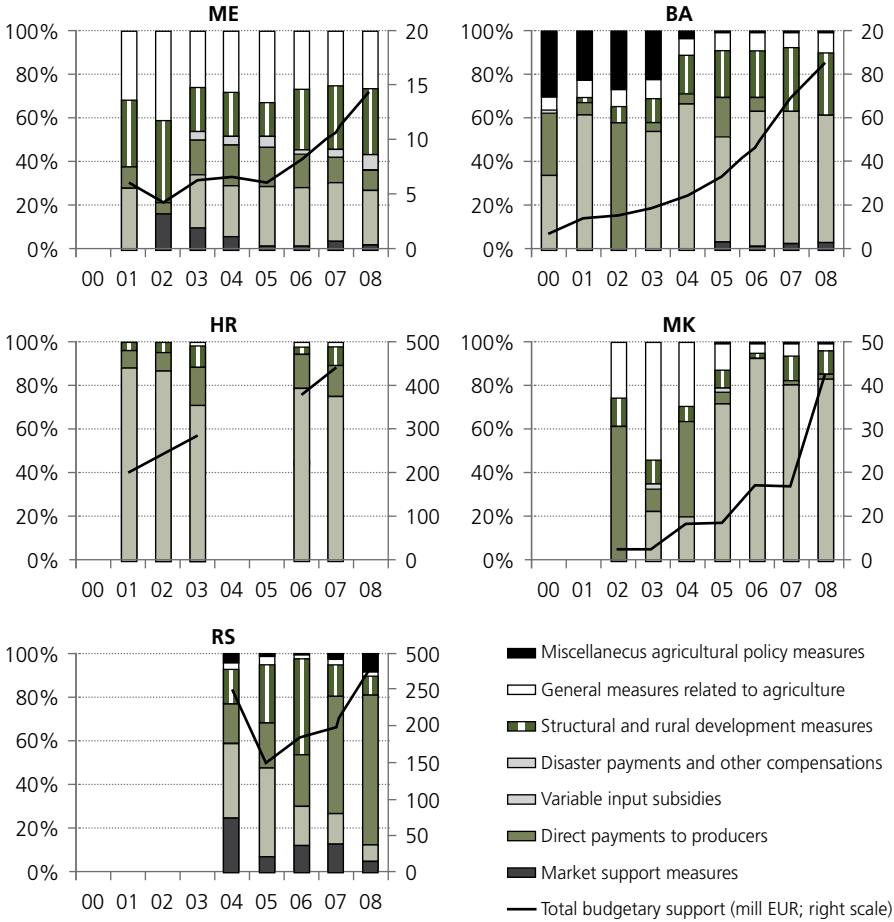
Table 3-2: Total budgetary support to agriculture per unit, 2007

	AL	BA	HR	HK	MK	ME	RS	BG	CZ	EE	HU	SI	EU27
EUR/capita	11	18	99	3	8	16	27	37	135	162	233	155	156
EUR/ha AA	31	32	364	11	16	20	40	55	329	239	402	626	448

Source: OECD Database

When comparing the evolution of total funds and the evolution of their structure, three different patterns can be found. In Bosnia Herzegovina, and after 2003, also in Montenegro, along with the growth of total support, its composition is also changing. Indeed, the share of funds related to rural development measures increases on account of the decrease in direct producer support funds. This is not the case in Croatia and Macedonia, where the structure in recent years is quite rigid and the share of direct producer support has remained very high. Serbia is a special case. In addition to a substantial drop in total support in 2005, dramatic changes in the structure of direct producer support can be seen in recent years – a switch from direct payments to input subsidies. The Serbian case (and Macedonia till 2004) clearly indicates the problem of agricultural policy stability.

Figure 3-1: Breakdown of total budgetary support to agriculture (%), 2000-2007



Source: APM Databases

The share of the budget for direct producer support is significantly higher in most WBCs. On the other hand, the proportion of rural development support measures is lower, as is the proportion of funding for general services.

Table 3-3: Breakdown of total budgetary support to agriculture (%), 2007

	BA	HR	MK	ME	RS	BG	CZ	EE	HU	SI
Market support	2.6	0.7	0.0	4.0	12.3	0.0	2.7	1.9	35.6	0.8
Direct producer support	61.1	88.5	82.7	37.4	66.8	15.0	53.6	40.4	37.9	45.5
Structural and rural development measures	28.4	9.1	10.6	31.3	16.1	8.1	27.6	35.5	19.5	43.0
General measures related to agriculture	6.8	1.6	6.7	27.3	2.1	76.9	16.1	22.2	7.0	10.8
Miscellaneous	1.1				2.7					

Source: APM databases

Direct producer support in the form of direct payments is the main element of agricultural budgetary transfers in most WBs, and is also the major factor of growth in budgetary funds. The composition of direct payments is very different compared to the EU Member States. There are also many differences between the WBCs. In Serbia, the prevailing direct producer support form is input subsidies, whereas in Bosnia and Herzegovina it is direct payments based on output, and in Croatia and Macedonia direct payments per animal and area prevails.

Table 3-4: Breakdown of direct producer support (%), 2007

	BA	HR	MK	ME	RS	BG	CZ	EE	HU	SI
Payment based on output	57.6	22.0	0.0	22.0	20.2	5.3	0.0	0.0	0.0	0.0
Payments based on current area/animal	41.6	62.5	97.7	39.0	0.9	15.7	0.0	46.2	69.5	9.7
Decoupled payments	0.0	0.0	0.0	0.0	0.0	33.0	92.9	51.6	27.8	67.2
Variable input subsidies	0.7	15.5	2.3	29.3	78.9	0.6	0.0	1.7	0.0	7.5
Other direct payments	0.0	0.0	0.0	9.8	0.0	45.3	7.1	0.5	2.7	15.6

Source: APM databases

Rural development policy is generally subordinate to direct producer supports, and mainly includes measures for restructuring agriculture, which have been gaining importance as accession preparations have increased. In the WB countries for which data is available, investment support and other measures aimed at improving the competitiveness of the agricultural sector represent the highest share of funds for rural development, ranging from about 70% in Montenegro and Serbia, to 100% in Macedonia (2007).

Table 3-5: Breakdown of rural development support (%),

	BA	HR	MK	ME	RS	BG	CZ	EE	HU	SI
Improving the competitiveness of the agricultural sector	19.3	96.8	100.0	67.7	68.2	100.0	17.2	31.7	37.4	33.8
Improving the environment and the countryside	3.5	0.0	0.0	0.0	2.0	0.0	71.1	52.1	50.1	64.5
Supporting rural economy and population	17.2	3.2	0.0	32.3	29.7	0.0	11.7	16.2	12.5	1.7

Source: APM databases

Budgetary support earmarked for the development of rural areas including the rural economy and rural infrastructure, represent important shares only in Montenegro and Serbia (about 30 %), but total funds for these measures are still very limited. Even less was spent for measures related to improving the environment and the countryside (the 2nd axis of rural development policy), although preparation activities for the implementation of such measures are underway in most WBCs.

3.3. The Agricultural Knowledge and Information Systems

Education[10] is a key issue for the future prospects of agriculture as it is one of the most powerful tools in changing the mentality of farmers. The common characteristic of the Western Balkans is the "large-scale" oriented method of education. Large-scale farming was very important before the transition, but this importance has decreased in different ways in the selected countries. Earlier chapters have given detailed analyses of this. Although the situation has changed in every country, not enough time has passed since the transition for the education systems to meet the new challenges posed by changes in production, distribution and markets systems. Literary evidence can be found in every country[11]. The former large-scale technological intensive production has lost its importance under the radically changed circumstances. The need for a small-scale, mostly semi-subsistence agricultural sector is totally different, with practice-based knowledge being the focus, as well as modern skills for the further development of:

[10] Education and training policies are central to the Europe 2020 strategy to turn the EU into a smart, sustainable and inclusive economy. One of the flagship initiatives under Europe 2020 is "Youth on the move", which aims to enhance the performance of education systems and to facilitate the entry of young people to the labor market. In particular, one of the headline targets of Europe 2020 is to reduce the share of early school leavers to below 10% of the population

[11] in Serbia by Bogdanov et. al. (2007)

- Market channels which are fragmented, which makes it difficult to sell agricultural products at the right price (World Bank, 2005/b),
- Fragmented production structure, where less than 10% of producers have sufficient production surpluses to compete in different markets and to re-invest in new technologies, require decentralized services (advisory, financial, marketing,
- New types of producer's organizations which are dominating some agricultural sectors in the European Union,
- Cooperation as the chance for both horizontal and vertical coordination (informal cooperation is widespread and contributed to the establishment of hundreds of farmer's organizations and cooperatives in the Western Balkans).

Between 2000 and 2009, the proportion of 18-24 year olds not completing upper secondary education fell in the EU-27 and in the WB countries. A little more than 14% of young people did not complete upper secondary education in the EU-27. Croatia and Serbia recorded by far the lowest levels, below 10%, of early school leavers. In contrast, in both Albania the proportion of young people who had not completed upper school education was 45%. More students in tertiary education and graduates in science and technology.

Table 3-6: Spending on human resources(public expenditure on education) as a proportion of GDP(%)

	2000	2005	2006	2007	2008	2009
EU 27	4.9	5.0	5.0	5.0		
HR	4.5	4.5				
ME						
MK	3.4	3.4				
AL	3.1	3.2	3.1	3.2	3.5	3.4
BA						
RS	2.4	3.1	3.3	3.4	3.5	
XK						

Source: Eurostat(online data codes: educ_figdp and cpc_pseduc)

Over recent years, the number of students attending tertiary education increased in the EU-27 as well as in the WB countries which saw higher growth rates than the EU-27 but on lower absolute values.

Table 3-7: Number of pupils/students by ISCED level of education, 2009 (1000)

	Total
EU 27	107440
HR	789
ME	142
MK	395
AL	759
BA	620
RS	1274
XK	469

Source Eurostat

The percentage of the population aged 20-29 graduating in science and technology increased in the EU-27 and in all WB countries over recent years. Across the EU-27, as well as in the WB countries, a higher percentage of men than women completed their tertiary education in science and technology. Croatia and Montenegro saw a significant rise for both genders. In Croatia the percentage of both men and women graduating in science and technology roughly doubled to almost equal the EU-27 rates of around 18% for men and 9% for women in 2008. In Montenegro the percentage of both men and women graduating in these fields more than doubled between 2003 and 2009 to almost 9% for men and 7% for women. The EU-27 public expenditure on education as proportion of GDP remained stable between 2000 and 2007 at around 5%. Serbia's public expenditure on education rose steadily from 2.4% in 2000 to 3.5% of GDP in 2008. Albania also recorded increases but with some fluctuations.

Table 3-8: Tertiary graduates in science and technology (per 1000 inhabitants aged 20-29)

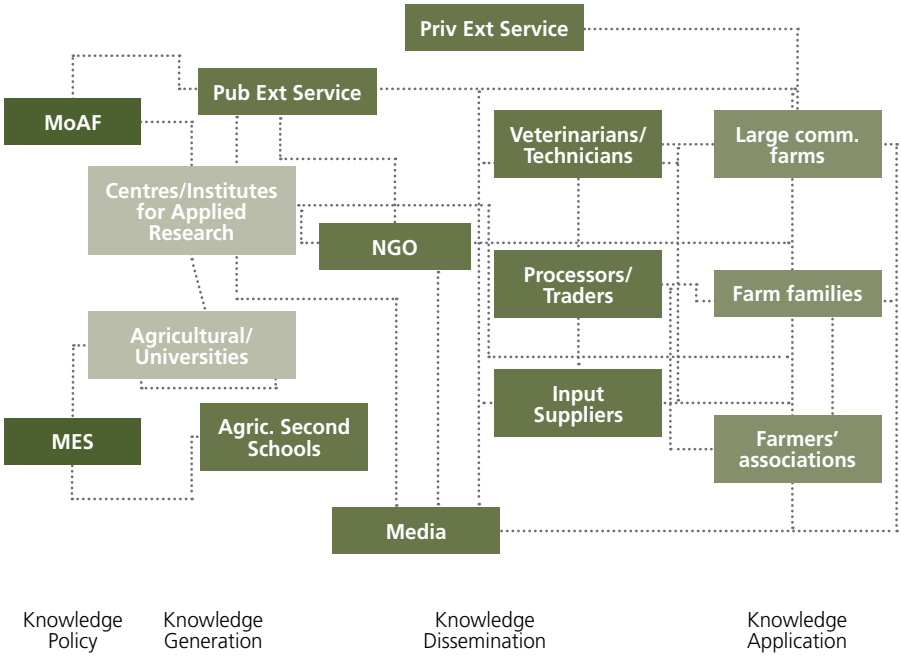
	Male			Female		
	2000	2005	2009	2000	2005	2009
EU 27	13.8	17.8	18.4	3.3	8.3	9.2
HR	7.4	7.5	16.7	4.8	3.8	9.0
ME	3.1	5.0	8.8	1.8	2.5	6.9
MK	3.5	3.9	4.6	2.6	3.4	3.3
RS	7.2	7.4	10.3	4.9	5.0	7.8

Source Eurostat (online data codes: educ_figdp and cpc_pseduc)

Higher participation in training is evident in most WB countries The proportion of persons aged 25-64 having participated in education and training increased in the EU-27 and in most of the WB countries for which information is available. Only Serbia recorded a stable level.

The actors at the knowledge policy level are the Ministry of Agriculture and the Ministries of Science and Education. Policy in the agriculture sector is undergoing a rigorous process of adaptation towards being in line with the European Union's Common Agricultural Policy (CAP). The knowledge generation level encompasses research institutes and institutes of higher education. Current agricultural extension structures have been developed mainly within the last two decades with the help of international donor projects. In all of the countries public structures of extension exist. Private extension providers such as NGOs and individual veterinarians are also in operation as are commercial extension agents, although these are only available to the better off farming enterprises.

Figure 3-2: The Agricultural Knowledge and Information System in the West-Balkan countries



Source: FAO, "Technical Support for HR of Agricultural Advisory Services in WB countries" 2011

The national institutes that are to transform and generate knowledge at the agricultural level are Universities/Faculties and the Institutes/Centers for Applied Research in Agriculture. In all the countries, academic education and research were divided, so that faculties or universities merely had the task of educating students, whereas research institutes were dedicated to carrying out academic research in their fields of expertise. Attempts to overcome the separation of research and education have been undertaken in all of the countries, either by merging institutes and faculties or by redefining tasks for the various institutions. In many cases the

institutes/centers have been nominally assigned to carry out applied research, whereas the universities are tasked with doing basic research in the field of agriculture. In most of the countries the centres/institutes for agricultural research are part of the Ministry of Agriculture, whereas the Universities/Faculties are steered by the Ministry of Science and Education. Universities/faculties neither have the means nor the experience to develop research facilities in a timely manner (unless they merge with the research institutes or through receiving serious funding and training). There is no clear differentiation between basic and applied research and it is questionable whether basic research is a realistic option for mostly small and usually underfunded universities and faculties. There are practically no links, or exchange of communication and activities between research centres/institutes and universities/faculties, especially if they are parts of different administrative systems.

The opportunity for laying a basic foundation of vocational knowledge and skills lies in school education. This is why vocational secondary schools with a focus on agriculture exist in all of the Western Balkans countries. However, education in most of the vocational schools is not very focused (if at all) on the experience needed for practical farm work. A high percentage of pupils enrolled in these vocational schools do not see their future in practical agriculture but rather in continued academic studies. This means that basic formal preparation for young people becoming skilled and knowledgeable farmers is almost non-existent. Extentions to structures in all the countries in the region were reconstructed or reformed (in some of them this is still going on) after the political turmoil in the nineties and after the wars in the former republics of Yugoslavia. This was achieved with the support of international projects from the World Bank, the EU, and bilateral donors. Most projects were supporting organizational development as well as the training of field staff. There was a very theoretical approach and contained insufficient connection of theory with the real farming situation. If they did not grow up in a farming household, agriculture students lack practical knowledge about farm work and the processes of farm production, as there are no obligatory periods of practical study on farms before or during the courses. Students hardly have the chance to work practically in the field of their chosen profession, be it as the heads of family farms, farm managers, researchers or advisors. This shortfall is due to the scarcity of resources, but also to a lack of structural reform in the field of research and education, which in the majority of the countries is still in its early stages of implementation.

Farmers' knowledge and skills requirements encompass issues of production, farm management, marketing and rural development issues. In the area of production and processing this especially means the integration of advice on modern technology into a specific and whole farm perspective. As for farm management, most farmers still lack basic knowledge on calculation and data recording. The same applies for marketing, and for most of the farmers the path to individual or joint strategic marketing is still very long. Public extension can only partly provide answers to these needs. Even though they are production specialists, most advisors have difficulties in embedding their technical view into a perspective that encompasses the farm and all its processes as a whole. Also, advisors are only able to thinly cover the areas of farm economy and farm development planning. Here, commercial advisors (if present) find the space to work for the very limited number of better off farms. Regional rural development is not systematically supported by the public advisory systems. This is due to an overload of work in the other sectors, and to the general lack of knowledge (on projects and programs) and skills (on group facilitation and group management). This potential area for rural advisory work is currently served by NGOs and donor projects. Education and training in and for the agriculture sector is offered by vocational secondary schools, vocational adult education, and agricultural universities. Formal offers (secondary school and university) are potentially available in all countries. Both of these types of institutions suffer from the agriculture sector being seen as an unattractive basis for making a livelihood; this results in fewer candidates applying to these institutions. A second drawback of most of the formal vocational institutions is their distance from practice, be it actual farming practice or the practice of research or laboratory work. This leaves students and graduates unprepared for an immediate take-up in their professional careers. Non-formal education for practitioners is only partially available. With the systematic involvement of input suppliers; the deficit of a small number of public agricultural advisors to cover the huge amount of farmer households could at least be partially mitigated. Individual input suppliers are located in almost every village and most of them are not too knowledgeable about the mechanisms, the limitations and the dangers of the produce they sell. This usually translates into farmers using fertilizer, pesticides and feed carelessly. Developing a program of training modules for input suppliers that could be offered to them on a national basis could be a worthwhile task at the regional level.

In developing national capacities for training the relative excellence of individual countries in specific areas of production such as processing and marketing could be utilized. Backed by a regional agreement, the individual countries could focus the development of their training institutions on their specific area of competence, knowing that the advisory systems in neighboring countries would regularly train their advisors in the respective topics through region-wide training. This would mean developing specialized national training institutions with regional mandates.

3.4. Research and Innovation

The R&D context is characterized by a very low funding of research. The share of GDP allocated to research is lower than in the EU-27: it is 0,18% in Albania, 0,05% of GDP in Bosnia and Herzegovina, 0,22% in Macedonia and 0,32% in Serbia (as a comparison it is 1,4% in the EU-27 and 0,39% in Romania). The GDP from the WBC being on average equivalent to 10% of the GDP from the EU, the resources made available for research can be considered extremely low. The research community is rather small. There are no reliable statistics on the number of researchers. Available estimates indicate the following: 2,300 scientists in Albania, 255 R&D personnel and 1,800 researchers in Macedonia, 22,500 employees and 11,600 researchers in Serbia. There is a need for capacity building and better programming of the research policy. As regards research[12]:

- *Bosnia and Herzegovina's science and research potential is in a critical condition. The training of a new generation of researchers is not being undertaken, most of the research infrastructure is obsolete or in the need of repair. Bosnia and Herzegovina has not developed a countrywide research policy framework".*
- Macedonia: *"Little progress can be reported in the area of scientific research, development of technology and development of a culture of technology, which*

[12] **Source**: Report on RTD Needs of the WBC from SEE-ERA.NET. Science and Technology Country Reports from SEE-ERA.NET, Progress report, published by the European Commission in November 2007

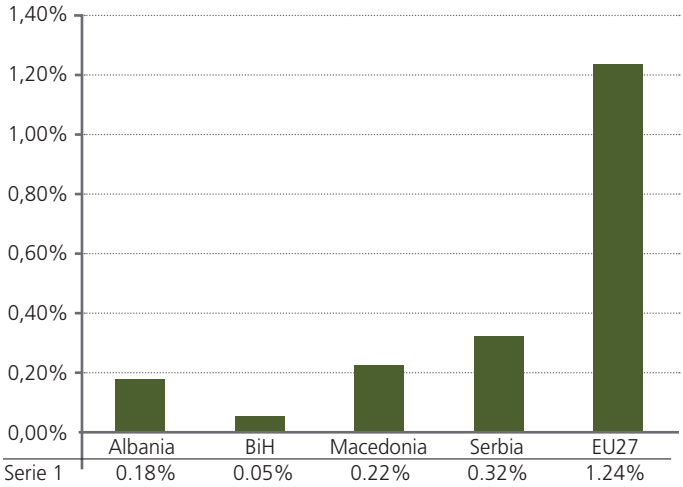
received an allocation of € 4.3 million (less than 1% of GDP), which is the same as last year. (…) Budgetary constraints and weak institutional capacity continue to impede the development of research".

- Serbia: *"Overall, Serbia is relatively advanced in the development of legislative framework for education and research. However, substantial efforts are still needed to further develop the two sectors and to link them to the economic context. An improved institutional framework and a better defined programme are needed to ensure further progress."*

The agro-food research community is small: in the four WBCs it is estimated that there are 47 research entities involved in agro-food research including 17 universities. It is estimated that there are between 3,450 and 3.650 researchers (FTE) scattered into 325 research groups. According to the national information in 2008, there were 220 research groups and 610 researchers in WB countries. The main research players are the following:

Albania: 9 research organizations divided into 29 research groups, 2 Universities, 1 academy of science, 5 centers of agricultural TT and 1 institute (Agricultural University of Tirana (AUT) (5 faculties), University of Korca Fan S. Noli, Academy of Science, Institute of Food Safety and Veterinary-Tirana, Centre of Agricultural Technology Transfer-Korca, Centre of Agricultural Technology Transfer-Lushnja, Centre of Agricultural Technology Transfer-Shkodra, Centre of Agricultural Technology Transfer-Fushe Kruja, Centre of Agricultural Technology Transfer-Vlora)

Figure 3-3: Gross Domestic Expenditure on R&D (GERD) as % of the GDP



Source: Science and Technology Country Reports from SEE-ERA.NET

Bosnia and Herzegovina: 9 research organizations divided into 29 research groups, 7 universities and 2 institutes (Džemal Bijedić University of Mostar, University of Banja Luka, University of Bihać, University of East Sarajevo, University of Mostar, University of Sarajevo, University of Tuzla, Federal Agricultural Institute of Sarajevo, Institute for Genetic Engineering and Biotechnology)

Macedonia: 9 research organisations divided into 73 research groups, 3 Universities, 1 academy of science, 5 other organisations (University „Ss Cyril & Methodius, University St Kliment Ohridski, State University Goce Delchev, Macedonian Academy of Science and Arts (MANU), Macedonian Scientific Association (MDN), Agency for motivating the development of agriculture, Institute GAPE, RR-group 2006, State Phytosanitary Laboratory

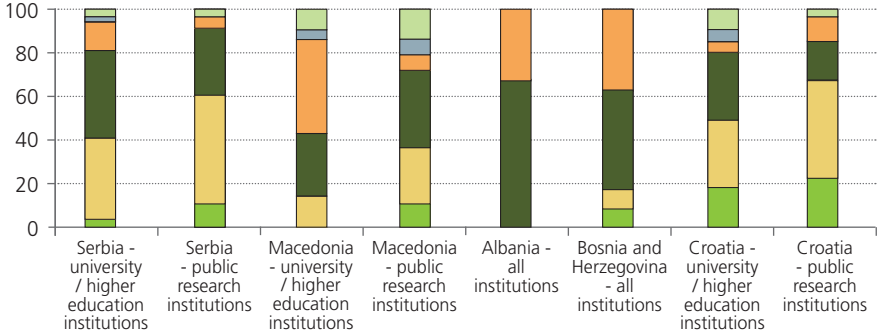
Serbia: 20 research organisations divided into 194 research groups, 5 Universities, 13 institutes, 2 others organizations (University of Belgrade (5 faculties, 9 institutes), University of Kragujevac (1 faculty), University of Nis (3 faculties, 1 school), University of Novi Sad (4 faculties, 2 institutes), University of Pristina (1 faculty), Centre for Multidisciplinary Studies of the Belgrade University, Fruit Research Institute, HP Institute of General and Physical Chemistry, Institute for Animal Husbandry, Belgrade-Zemun, Serbia, Institute for Forage Crops, Institute for Medicinal Plant Research Dr. Josif Pancic, Institute for Oncology and Radiology of Serbia, Institute for Plant Protection and Environment, Institute for Vegetable Crops, Institute of agricultural economics, Institute of Chemistry, Technology and Metallurgy, Institute of Field and Vegetable Crops, Maize Research Institute, Pesticide and Environment Research Institute, Research and Development Centre for Small Grains.

The agro-food research system of Albania, Bosnia and Herzegovina, Macedonia and Serbia is characterized by its small size: it is estimated that there are 3.500 researchers involved in the sector. The research capacity is very fragmented with the existence of more than 45 research organizations including 17 universities involved in agro-food research. A major difficulty is the very low budget available for research: the Western Balkan Countries GDP per capita is around 10 times lower than the average EU-27 and the share of the GDP allocated for research is well below the average of the EU-27. Without any increase of the financial resources, the future of agro-food research in the WBC is jeopardized. The EU through the FP7 but also EU Member States through bilateral programmes can provide support to the agro-food research community from the WBC. The vast majority of the agro-food research units have obsolete and outdated technological infrastructures. In Macedonia and in Serbia universities and institutes belonging to higher education seem to have more developed infrastructures than public research institutions.

According to the BAFN survey, food technology and plant science appears as major research areas. The importance of the research areas can be measured in several ways (number of researchers, number of scientific output, researcher mobility). According to the number of researchers, the following areas seem important (more than 50% of the researchers work in the following scientific fields):

- "plant production and protection", "management of natural and biological resources" and "animal health" for Albania,
- "economic, social and political aspects", "food technology" and "plant production and protection" for Bosnia and Herzegovina,
- "economic, social and political aspects", "management of natural and biological resources" and "plant production and protection" for Macedonia,
- "economic, social and political aspects", "plant production and protection" and "food technology" for Serbia

Figure 3-4: Quality of the research infrastructure



Source: BAFN Survey, March 2008

4. Challenges

4.1. Introduction

In this chapter are analyzed some of the identified challenges concerning WBCs accession to EU, especially agricultural sector requirements; the risks related to climate change and effects on the production of important crops; highlighting the gaps and barriers that central and local governments need to address; advantages and opportunities of Free Trade Agreements and the issue of food safety and international standards implementation.

4.2. Main Challenges and Progress on the Path Towards EU Accession

The EU operates comprehensive approval procedures that ensure new members are admitted only when they can demonstrate they will be able to play their part fully as members, namely by: complying with all the EU's standards and rules, having the consent of the EU institutions and EU member states, having the consent of their citizens – as expressed through approval in their national parliament or by referendum.

Membership criteria. The Treaty on the European Union states that any European country may apply for membership if it respects the democratic values of the EU and is committed to promoting them. The first step is for the country to meet the key criteria for accession. These were defined at the European Council in Copenhagen in 1993 and are hence referred to as the 'Copenhagen criteria'. Countries wishing to join need to have: stable institutions guaranteeing democracy, the rule of law, human rights and respect for and protection of minorities; a functioning market economy and the capacity to cope with competition and market forces in the EU; the ability to take on and implement effectively the obligations of membership including adherence to the aims of political, economic and monetary union. The EU reserves the right to decide when candidate countries can join. It also needs to be able to integrate new members. The conditions and timing of the candidate's adoption, implementation and enforcement of all current EU rules (the "acquis"). These rules are divided into 35 different policy fields (chapters), such as transport, energy, environment, etc., each of which is negotiated separately.

They are not negotiable: candidates essentially agree on how and when to adopt and implement them. The EU obtains guarantees on the date and effectiveness of each candidate's measures to do this. Other issues discussed: financial arrangements (such as how much the new member is likely to pay into and receive from the EU budget (in the form of transfers), transitional arrangements – sometimes certain rules are phased in gradually, to give the new member or existing members time to adapt. Oversight by the EU institutions throughout the negotiations, the Commission monitors the candidate's progress in applying EU legislation and meeting its other commitments, including any benchmark requirements. This gives the candidate additional guidance as it assumes the responsibilities of membership, as well as an assurance to current members that the candidate is meeting the conditions for joining. The Commission also keeps the EU Council and European Parliament informed throughout the process, through regular reports, strategy papers, and clarifications on conditions for further progress. According to the Copenhagen Criteria for EU accession, progress in transition and full implementation of institutional reforms is one of the key pre-conditions for the five Western Balkan countries to become EU members. This progress is equally integral to the creation of a business-friendly investment climate and nurturing more balanced future growth in this region. Progress in transition and improvement

of the business environment are considered the key pre-conditions of post-crisis growth agenda in the region (EBRD, 2010c).[13] This is relevant for the five Western Balkan countries' efforts to intensify their reform process, as full implementation of these reforms might accelerate their EU accession process.

Table 4.1: Transition reforms in Western Balkan 5

	AI	BH	MK	ME	RS	WBC 5
Small scale privatization	4	3	4	3.7	3.7	3.7
Price liberalization	4.3	4	4.3	4	4	4.1
Trade& Forex system	4.3	4	4.3	4	4	4.1
Large scale privatization	3.7	3	3.3	3.3	2.7	3.2
Banking reform & interest rate liberalization	3	3	3	3	3	3
Securities markets & non-bank financial institutions	1.7	1.7	2.7	1.7	2	1.9
Enterprise restructuring	2.3	2	2.7	2	2.3	2.3
Competition Policy	2	2	2.3	2	2.3	2.1
Overall infrastructure reform	2.3	2.7	2.7	2.3	2.3	2.5

Source: EBRD Transition indicators, 2010

[13] Progress is measured against the standards of industrialized market economies. EBRD divides transition reforms into three stages (EBRD): (I) market-enabling, first stage reforms – such as small-scale privatization and liberalization of prices and exchange rates; (II) market-deepening, second-stage reforms – involving privatization of larger enterprises and strengthening of financial institutions, and (III) market-sustaining, third-stage reforms – involving fundamental reforms to the governance of enterprises, the development of institutions to protect and promote competition, and a more commercial approach to the provision of infrastructure services.

4.2.1. Current Membership status of WBCs

1. Acceding countries. EU membership terms agreed – waiting for ratification by all Member States to join.

Croatia, applied for EU membership in 2003 and was in negotiations from 2005 until 2011. On the 9th of December 2011 leaders from the EU and Croatia signed the accession treaty. Croatia became the 28th EU member country on 1 July 2013.

2. Candidate countries. Still negotiating – or waiting to start

Macedonia, Negotiations status – October 2012. Macedonia – along with other Western Balkans countries – was identified as a potential candidate for EU membership during the Thessaloniki European Council summit in 2003. Macedonia applied for EU membership in March 2004. The Commission issued a favourable opinion in November 2005, and the Council decided in December 2005 to grant the country candidate status. In October 2009, the Commission recommended that accession negotiations be opened.

Montenegro, Negotiations status – December 2012. In 2006 Montenegro's parliament declared independence from the State Union of Serbia and Montenegro. In 2008, the new country applied for EU membership. In 2010, the Commission issued a favourable opinion on Montenegro's application, identifying 7 key priorities that would need to be addressed for negotiations to begin, and the Council granted it candidate status. In December 2011, the Council launched the accession process and negotiations in June 2012.

Serbia, along with five other Western Balkans countries – was identified as a potential candidate for EU membership during the Thessaloniki European Council summit in 2003. In 2008, a European partnership for Serbia was adopted, setting out priorities for the country's membership application, and in 2009 it formally applied. In 2010, the process to ratify the Stabilization and Association Agreement began, and in March 2012 Serbia was granted EU candidate status.

3. Potential candidates. They were promised the prospect of joining when they are ready.

Albania, was identified as a potential candidate for EU membership during the Thessaloniki European Council summit in June 2003. In 2009, Albania submitted its formal application for EU membership. In its Opinion on Albania's application (in 2010), the Commission assessed that before accession negotiations could be formally opened, Albania still had to achieve a necessary degree of compliance with the membership criteria and in particular to meet the 12 key priorities identified in the Opinion. In October 2012, the Commission recommended that Albania be granted EU candidate status, subject to completion of key measures in the areas of judicial and public administration reform and revision of the parliamentary rules of procedures.

Bosnia and Herzegovina, was identified as a potential candidate for EU membership during the Thessaloniki European Council summit in June 2003. Since then, a number of agreements between the EU and Bosnia and Herzegovina have entered into force - visa facilitation and readmission agreements (2008), Interim Agreement on Trade and Trade-related issues (2008). The EU continues to deploy considerable resources in Bosnia and Herzegovina within the framework of the Common Foreign and Security Policy (CFSP) and the European Security and Defense Policy (ESDP). The current EU Special Representative (EUSR), Peter Sorensen, is also Head of the Delegation of the European Union. The EUFOR/Althea mission continues to be present in Bosnia and Herzegovina. Following an improved security situation, EU EUFOR/Althea forces were reduced from 6000 to around 2000. The mandate of the EU Police Mission (EUPM) has been extended until the end of June 2012. The EUPM continues to focus on police reform, as well as the fight against organized crime and corruption.

4.2.2. Challenges for the Agro-Food Sector of WBCs in the Process of EU Accession

Background on EU Agricultural framework: More than 91% of the territory of the EU is "rural", and contains more than 56% of the EU's population. The EU has a common rural development policy (2007-2013), of which considerable control is in the hands of individual Member States and regions. It is funded partly from the central EU budget and partly from individual Member States' national or regional budgets, and has links to a number of other EU-level policies. The Rural Development Policy has thematic, strategic, flexible (40 measures are available) balance between the sectorial dimension i.e. agricultural restructuring, and the territorial dimension, land management and the socio-economic development of rural areas). This integrated approach focuses on three themes ("thematic axes"): IPA (Instrument for Pre-accession Assistance) the Rural Development component has further objectives: to prepare countries for the implementation and management of the Common Agricultural Policy, contribute to the sustainable adaptation of the agricultural sector and rural areas Multi-annual rural development programme, with three "axes" containing "measures".

Priority Axes:

- **Axis 1** Improving Market Efficiency and Implementation of Community Standards
- **Axis 2** Preparatory Actions for Implementation of the Agri-environmental Measures and Leader
- **Axis 3** Development of the Rural Economy

Axes 1. Improving the competitiveness of the agricultural and forestry sector.

Investments in agricultural holdings to restructure and to upgrade to Community standards. To upgrade them to Community standards and to improve their overall performance assistance can be granted to holdings which can demonstrate economic viability at the end of the realization of the investment and which comply with national minimum standards when the decision to grant support is taken.

Support for the setting-up of producer groups. To facilitate the setting-up and

administrative operation of producer groups which were established for the purpose of: adapting the production to market requirements, jointly placing goods on the market and establishing common rules on production information. Support is a flat-rate aid granted in annual installments for the first five years following the date on which the producer group was recognized.

Investments in the processing and marketing of agriculture and fishery products to restructure those activities and to upgrade them to Community standards. To upgrade enterprises to Community standards and to improve their overall performance in the processing and marketing of primary agricultural and fishery products, support can be granted for investments in enterprises which: can demonstrate economic viability at the end of the realization of the investment and comply with national minimum standards when the decision to grant support is taken

Axes 2. Improving the environment and the countryside.

Actions to improve the environment and the countryside. Pilot actions in a limited number of areas with identified environmental objectives, support to farmers who make on a voluntary basis a commitment going beyond the mandatory standards, payments granted annually to cover additional costs, income forgone and where necessary also transaction cost (Examples: reduction, better management of fertilizers crop-rotations)

Preparation and implementation of local rural development strategies. Local-public-private partnership (Local Action Group - LAG), bottom-up approach with the decision making power for LAG concerning the elaboration and implementation of strategies, implementation of area-based local development strategies, running of local private-public partnerships, implementation of cooperation projects and networking of local partnerships.

Axes 3. Improving the quality of life in rural areas and encouraging diversification of the rural economy

Improvement and development of rural infrastructure. Assistance for investments aimed at improving and developing rural infrastructure, priorities for investments:

water and energy supply, waste management, local access to information and communication technologies, local access to roads and fire protection infrastructure.

Diversification and development of rural economic activities. Support for farmers and any other private legal entities established in rural areas undertaking the activity, priority given to investments for the creation and development of: micro and small enterprises, crafts and rural tourism with a view to promoting entrepreneurship (Examples of investments: alternative productions like production of medical and spice herbs, mushrooms and providing services to farmers)

Improvement of training. Assistance to improve occupational skills and competence of persons engaged in the agricultural, food and forestry sectors, support not granted to courses of instruction or training which form part of normal programmes or systems of education at secondary or higher level.

Technical assistance – preparation, monitoring, evaluation, information and control activities for the implementation of the programme.

Horizontal - the 'Leader approach' - acts as a way of implementing rural development policy

4.2.3. Accessing EU Pre-Accession Funds

Taking maximum advantage of EU pre-accession funds to facilitate the agricultural transition requires getting an early start on developing EU compatible institutions and fund absorptive capacity. WBC candidates as potential candidate countries for EU membership; will qualify for Instrument for Pre-Accession (PA) assistance. IPA, launched in 2007, is specifically designed to help future accession countries meet EU requirements prior to accession. Budgets of countries will benefit from additional resources that can be used to support the sector's transition to a competitive market-oriented agriculture sector. To be able to access and take the maximum advantage of these funds, WBCs must develop the necessary institutions and demonstrate absorption capacity. This in itself will require significant investment.

Main steps towards the IPARD are:
1. Receiving of a "Candidate Country" status
2. Adoption of IPA Rural Development Programme,
3. Framework and Sectoral Agreements,
4. National accreditation of IPARD operational structures,
5. Accreditation and conferral of management decision,
6. Multi-annual Financing Agreement

So, if and when Serbia for example becomes a candidate country, it is likely to receive IPA funding in the order of 1.5 percent of GDP or about €290 million per year.[14] While the exact amount of funding that will be made available to Serbia by the EU will remain unknown in the near term, it is expected to compare quite favourably with the allocations received by Croatia (0.47 percent of GDP), Turkey (0.19 percent of GDP), and Romania and Bulgaria (1.4 percent of GDP). This level of funding is approximately 3.75 percent of the 2005 government budget and represents a substantial increase in public expenditure. This funding is for all PA programs, including Transition Assistance and Institution Building, Regional and Cross Border Co-operation, Regional Development. As of January 2007 the EU's current development and pre-accession instruments, including SAPARD, ISPA, Phare and CARDS, was united under one instrument, the Instrument for Pre-Accession Assistance (IPA). IPA provides assistance in institution-building, regional and cross-border cooperation, and, for candidate countries, more comprehensive assistance in regional development, human resources development and rural development. This development assistance is intended to help prepare candidate countries for implementation and management of the EC's cohesion policy, particularly the European Regional Development, Cohesion, and Social Funds, for implementation of the Common Agricultural Policy, and for implementation of the acquis communautaire concerning the CAP. It also provides financing for activities related to these actions.[15]

[14] This is equivalent to 0.13 percent to 0.34 percent of 2005 GDP or anywhere from 12 to 32 percent increase in agricultural expenditures

[15] Communication from the Commission to the Council and the European Parliament on the Instruments for External Assistance under the Future Financial Perspective 2007-2013, Brussels, 29.9.2004.

Figure 4-1: Co-financing principle EU contribution / Beneficiary Cash flow SAPARD = IPARD

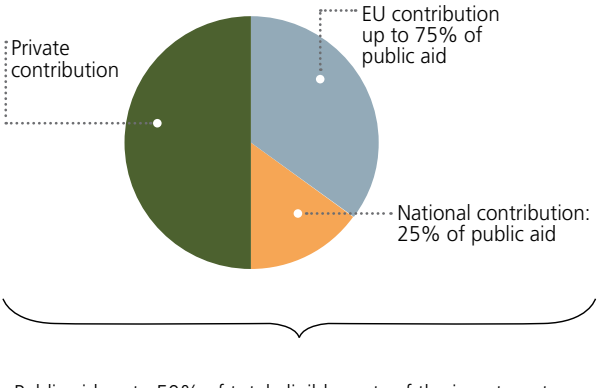


Figure: Co-financing EU contribution SAPARD = IPARD

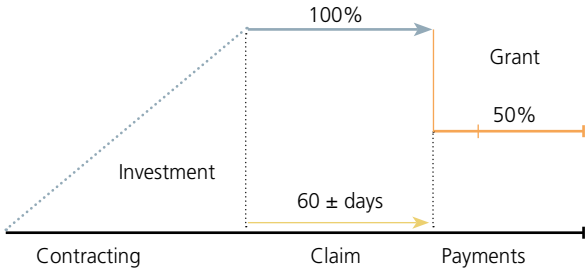


Figure: Beneficuary Cash flow SAPARD = IPARD

Figure 4-2: Timeframe for preparation

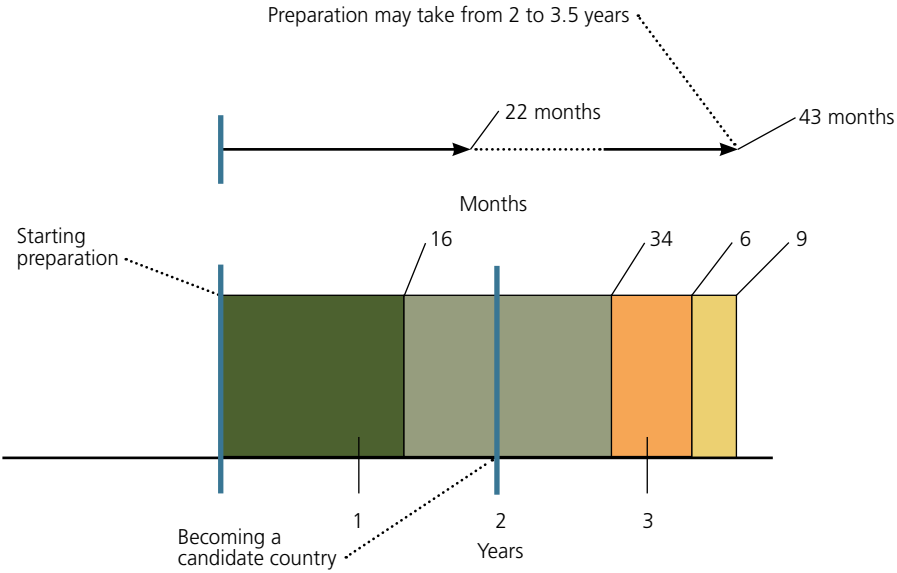


Table 4-2: Rural development expenditures projection

	Projected IPARD Allocation (e per year)	Share of GDP in 2005	Share of 2006 Agricultural Budget
Low case e 5 per ha	25.500.000	0.13%	12%
Middle case e 9 per ha	45.900.000	0.24%	22%
High case e 13 per ha	66.300.000	0.34%	32%

Source: Report No. 37825-YF

Accessing IPA funding will be significantly more demanding than previous pre-accession funds. IPA beneficiaries are expected to demonstrate absorptive capacity, short of which they will likely loose IPA funds. To demonstrate absorptive capacity countries must:

- quickly set-up and adequately staff the Central Financial Control Unit in Treasury,
- establish the structures in charge of administering pre-accession funds in a manner consistent with the vigorous accounting and auditing standards of the EU; and,
- make sure the required legislation is passed by the Parliament in a timely manner.

4.2.4. Negotiations on agriculture - stages in the process

Within the negotiations for accession, those dedicated to the primary sector appear as the most complex and strategically relevant. It was not by chance that the chapter on agriculture was one of the last to be completed, on April 19th 2011, in Croatia's accession process. The agriculture negotiation process includes important reforms, from the strengthening of the capacity of public administrations, both in qualitative (human resource management) and quantitative terms, to the creation of new institutions and the launching of necessary reforms to modernize the sector and prepare it for the CAP. These are steps that all the countries in this region, albeit at different times, have already started to make and that are essential for harmonizing the legislative framework with the structure and measures that characterize the CAP (i.e. direct payments, market interventions, rural development, financial discipline) and accession negotiations.

Table 4-3 Calendar of the agriculture negotiation process on the basis of previous enlargements

Year 0	Association and Stability Agreements with the European Union
Year 1-2	Question, survey, Avis (Opinion of the European Commission)
Year 3-5	Beginning of negotiations: - evaluations: comparative analysis of the acquis; - formal positioning within the negotiations: obligations, requests for waivers and transitional periods
Year 6	Final financial package: - financial position of the EU and political consultations on the enlargement; technical meetings on quotas, rural development and additional payments
Year 7-8	Preparation of the accession

Source: E. Erjavec, 2006

There are many challenges. An analysis of costs and benefits shows, however, that the latter are likely to be greater. The progressive steps towards the CAP allow many countries to improve their agricultural policies: from increasing transparency in the distribution of resources, to launching the modernization of the sector and reaching a greater stability in the measures adopted. All these elements have contributed to creating a medium- to long-term vision that for years had been missing from the national political scene. Which CAP for the Balkans? The Common Agricultural Policy that the Western Balkans are looking towards is not the current one. After 2013, when Croatia alone will become part of the EU, the CAP will most probably be characterized by many innovations introduced in order to respond effectively to future challenges for food, natural resources and land. The debate on the new CAP started in 2010 with the objective of enabling an open dialogue for all the stakeholders involved:

- Member States (national governments and local and regional administrations), the European Commission, the European Parliament, professional organizations, the industrial sector, academia, civil society and rural communities.
- The matters upon which these actors are forming their positions are related to: the overall costs (confirmed with regard to 2007-2013 planning) and the (re-

distribution of the agricultural budget, which currently very much disadvantages the countries that joined in 2004 and 2007); the future of the single payment scheme (which is unsustainable in the long run); the objectives, the instruments and beneficiaries of the agricultural expenditure; the maintenance of the pillared structure of the CAP (market policy - first pillar; rural development policy - second pillar); the issue of co-financing; the future of rural development policy; the financial compensation of public goods

- Among the hot issues is also a potential redistribution of resources in favour of rural development, so far largely secondary compared to market policies (direct aid, market interventions), and a revision of the instruments aimed at taking the growing diversity of the agricultural and rural systems of an enlarged Europe into consideration and therefore favouring inclusive and sustainable growth (European Commission, 2010h). A significant role, as underlined also by the European Commissioner for Agriculture, will be played by instruments devoted to small family farms (oriented towards full financial support and semi-financial support). Although they do not fulfill Commission requirements in terms of competitiveness, they carry out an essential role in terms of natural resource management and the preservation of land and rural communities. The underlying motivation for the reform of the CAP is to be found not only in the new challenges that the agricultural sector and rural areas are facing, but also in the need to regain credibility in the eyes of citizens and tax payers. Challenges and progress en route to EU accession include awareness of not knowing what the European model will be after 2013 which may encourage national governments to give up the temptation of re-proposing CAP measures and structures without any kind of adaptation to local contexts.

Table 4-4: Calendar of the debate on the CAP post 2013

3 March 2010	Publication of the "Europe 2020" document
12 April 2010	Launch of the public consultations on the CAP
June 2010	Approval of the "Europe 2020" Strategy
19-20 July 2010	European Conference on the future of the CAP
18 Novem-ber2010	European Commission Communication on the CAP towards 2020
December 2010	First instructions on the 2014-2020 EU balance
July 2011	Legislative proposals on the future of the CAP
By December2012	New CAP approval
1 January 2012	New CAP takes effect

Source: Europe direct

Without any doubt and considering past enlargement procedures, the gradual introduction of measures influenced by the instruments used in the CAP framework could facilitate the alignment process of the agricultural sector. It is, however, just as important to adapt such instruments and measures to local conditions; in fact, in many cases, it is not yet possible for local objectives to be the same as those of an EU Member. Some countries, especially current "potential candidates", are not ready to put a large part of their resources into environmental safety and rural development, but must continue to invest in food safety, market consolidation, the reinforcement of institutions and updating and harmonizing their statistics. There are also specific and complex challenges that affect single countries, such as the administrative fragmentation in Bosnia Herzegovina (European Commission, 2004) or the extreme vulnerability of markets in Albania (World Bank, 2007) and so on. Croatia's successful progress towards EU membership has become an important point of reference, however, there are many experiences, even looking at previous enlargement cases, to which candidates and potential candidates may look for inspiration. The absence of linguistic barriers and a common history in most of the Balkan countries could also be play a significant role and could favour the exchange

of experiences and good practices linked to the choices to be made en route to European integration.

4.2.5. Main challenges and progress on the path towards EU accession by WBCs, evaluations by the EC

Albania. Progress regarding the legislative and institutional framework, but structural shortcomings still exist. The Land Registry Office only exists on paper and is not complete or updated. The limited reliability and availability of statistical sources could be partially improved with the agriculture census planned for 2012. Markets remain vulnerable; structures comparable to common market organizations do not exist. Professional organizations remain weak. Veterinary, plant health and food safety policies rarely conform to EU standards, which hinders the country's ability to export.

Bosnia Herzegovina. The harmonization of the institutional framework and the process of simplifying relations between State and Entities remain a priority. An operative strategy and programme exist for the harmonization of agriculture and rural development, but the implementation has not yet begun. No progress towards the creation of a Ministry of Agriculture at State level. The consolidation of statistical sources is still limited. Progress regarding food safety, veterinary and plant health policies. Problems linked to scarce human and financial resources and to insufficient coordination between State services and those of the Entities.

Croatia "Rural and agricultural development" chapter of the negotiations closed on 19th April 2011.

Croatia. Main problems and key challenges of the agro-food sector concerning its adaptation to the European market conditions. Until the end of the 1990s, there was no arranged legislative framework for implementing agricultural policy measures in Croatia. So in 1999 the Ministry of agriculture and forestry (now MAFWM) initiated the process of creating and adopting the umbrella law – the Law on agriculture, which was the first step to legally determine and arrange basic contents in the agricultural sector. After that period, numerous other laws and

regulations have been adopted, directly or indirectly connected to agriculture, fishery and rural areas, trying to harmonize the system with EU legislation. In arranging the rural development activities, in 2006 not only the SAPARD programme has been prepared, but also the Action plan for agriculture and rural areas (the Draft, prepared as a study, AFZ, 2005), in which four groups of development priorities have been determined, due to the CAP framework (development of rural economy, market accession, development of rural infrastructure and human capacities development). Due to the evaluation of European Commission regarding the Croatian progress in the process of EU accession, there are some positive movements in institutional and legislative adaptation: the Integrated Administration and Control System – IACS is founded, as well as the Land Parcel Identification System – LPIS, Farm register and the Farm Accountancy Data Network – FADN. It is, however, estimated that considerable financial means will be required for building capacities for administration of the CAP. At the normative stage, a lot has been done, but additional activities should be put into the implementation of legislation and strengthening administrative capacities, especially in the field of phytosanitary and veterinary measures, food quality and food safety. Croatian accession to the EU will undoubtedly have a strong influence on Croatian agriculture. Because of the different CAP mechanisms, and even more because of Croatian incompatible agricultural statistics, these effects are very hard to estimate at this point. However, it can be supposed that the predominant influence on the structure and value of production, food prices and farmers' income will have the system of agricultural protection implemented at the moment of entering the EU. First estimations of expected benefits (EIZ,2007) show that, despite the expected agricultural protection within the current EU support models, this transition would cause a decrease in production value and value added that the farmers realize under the current circumstances in Croatia. On the other hand, besides this, rather pessimistic forecast, it can be expected that EU membership will result in some additional benefits, such as market enlargement, improvement of the products' quality, more rational spending of agricultural budget and using EU funds for restructuring the agriculture, which should result with increased competitiveness in some time. Until then, measures for stimulating competitive business should be a priority within domestic agricultural policy, because this is the only way to make all these transitional shocks easier to survive.

Macedonia. The administrative capacities of the paying agency and of the operative structures responsible for EU pre-accession funds have been strengthened. The human resources agencies for the agricultural sector have improved on the in terms of expertise of personnel, but not in terms of its numbers. Significant progress in the creation of an agricultural information system by forming a national committee for the management of the FADN (Farm Accountancy Data Network), the beginning of some pilot FADN activities and alignment with the acquis nearly reached. Harmonization of Common Market organizations has begun, including the creation of specific standards for some crops (cereals, rice, fresh fruit, vegetable products, animal-derived products). Good results in the implementation of the IPARD programme, begun in December 2009. Progress in the sector of veterinary, plant health and food safety is still limited.

Montenegro. Progress in terms of reforms of the legislature and adoption of national programmes and strategies, yet implementation remains weak. Direct payments are not aligned with EU regulations. An agricultural informational system must be set up in order to start the creation of the FADN. Statistical sources are still weak. The legislative framework relating to veterinary, plant health and food safety has been strengthened, but an integrated system for food safety still has to be set up. The administrative ability of the Agriculture, Forest and Water Resource Management Ministry has only partially improved and must be ultimately strengthened even for the IPARD Programme.

Serbia. In the agricultural and rural development sectors, the alignment with the acquis is being achieved through the adoption of important framework laws. The paying agency that should serve as the future agency for the IPARD programme has been created. A plan of action for the IPARD programme has been developed. Within the rural national network, two new rural regional centers have been created – making a total of 16 at national level. Limited progress in terms of food safety. Progress in the veterinary and plant health sectors, also in terms of strengthening the labs for the safety of food chains. Serbian farmers will be eligible for significant financial support from the Common Agricultural Policy (CAP). To access CAP funding in the future, Serbia must invest in institutions, in particular the IACS (Integrated Administration and Control System), Serbia has a head start with establishing institutions that are necessary for IACS such as farm and herd

registries, the experience elsewhere suggests that accession countries in the past have underestimated the needs for development of an IACS. Given the complexity of establishing an IACS, the labour and administrative costs and the time needed can only be estimated. As CAP support is moving from direct production support to measures that stimulate more efficient investments in agriculture as, the rural development and agri-environment schemes are, suggest that Serbia is on the right track by starting to invest in similar programs in measures whish focus on farm restructuring.

4.3. Climate Change and Environmental Risk

4.3.1. Domains of countries response to risks

The region of the Western Balkan countries (WBCs) is one of the most vulnerable areas in Europe to the consequences and impacts of climate change. The impacts of climate change include the increased magnitude of floods and droughts and greater resulting damage, as well as reduction in crop yields. The decreased availability of water may also affect hydro-power production in the energy sector, and higher numbers of people are exposed to vector- and water-borne diseases. Adaptation could essentially reduce these effects, so the challenges WBCs will face in the context of climate change have to be taken into consideration. Recognizing the need to combat the significant impacts of climate change, some Western Balkan countries have launched activities and initiated meetings to enhance cooperation. At the First Thematic Climate Change Conference, held in Sarajevo on November 14, 2008, a joint statement was issued and the Framework Action Plan for Adaptation (SEE/CCFAP-A) by the ministers of environment of Albania, Bosnia and Herzegovina, Macedonia, Montenegro and Serbia (the participating countries), stating the establishment of a common political platform of the countries. The

adopted SEE/CCFAP-A, which runs from 2009 to 2015, provides a framework to tackle adaptation-related issues. The implementation of the action plan is hampered by a variety of factors, including lack of financial resources, willingness and interest on the part of stakeholders to initiate activities.

The countries of the Western Balkans face severe economic difficulties: the standard of living is lower than in the EU; unemployment rates are high; and economic growth is relatively modest. The acceleration of economic reforms is a huge challenge, but at the same time it can be seen as an opportune moment to integrate climate change aspects into the newly drafted national development plans. Agriculture is an important sector of the economy in Western Balkan countries. Due to the region's climate, agriculture—in particular the production of crops, fruits and vegetables—has traditionally been a crucial contributor to the national economies. Agriculture provides the income basis for a high proportion of the population and employment for many. At the same time, agriculture is the second highest contributor, after the energy sector, to national greenhouse gas (GHG) emissions in Western Balkan countries. Most of WBCs are signatories to the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol (KP) and obliged to develop strategies for climate change mitigation and for adaptation to changing climatic conditions; to cooperate in climate observations, research and technology transfer; and to promote education and public awareness. In this regard, all European countries that are candidates for EU accession have assumed the obligations under the UNFCCC and KP. In order to achieve better adaptation it will be necessary to introduce new joint research programmes. The application of research results may lead to cost reductions and allow a satisfactory level of agricultural production to be maintained in WBCs. In order to achieve this, a multidisciplinary approach must be applied to solving the problems faced by the agricultural sector under changed climatic conditions. Domains of the WBCs response to climate change and environmental risks can be illustrated as:

Table 4-5: Domains of country response to climate change

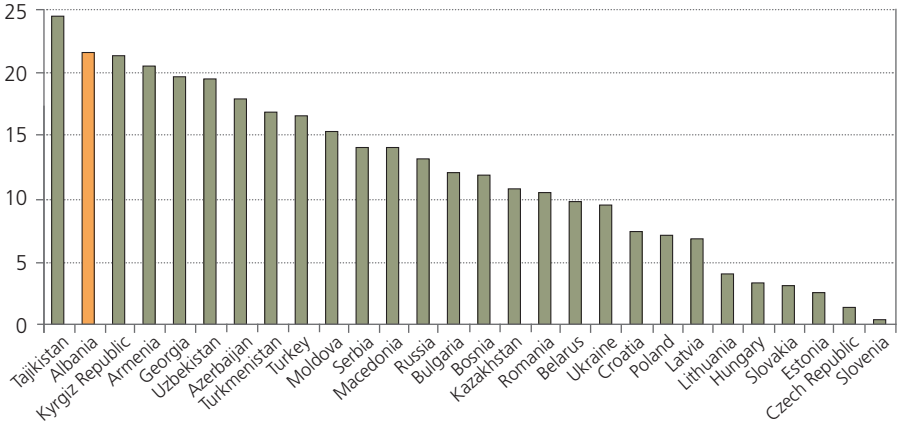
Risks

Domain	Sub-domain	Title
Responses	Public policy	Agri-environmental commitments
		Agricultural areas under Natura 2000
	Technology and skills	Farmers' training level and use of environmental farm advisory services
	Market signals and attitudes	Area under organic farming
Driving forces	Input use	Mineral fertilizer consumption
		Consumption of pesticides
		Irrigation
		Energy use
	Land use	Land use change
		Cropping patterns
		Livestock patterns
	Farm management	Soil cover
		Tillage practices
		Manure storage
	Trends	Intensification/intensification
		Specialization
		Risk of land abandonment
Pressures and risks	Pollution	Gross nitrogen balance
		Risk of pollution by phosphorus
		Pesticide risk
		Ammonia emissions
		Greenhouse gas emissions
	Resource depletion	Water abstraction
		Soil erosion
		Genetic diversity
	Benefits	High Nature Value farmland
		Renewable energy production

Domain	Sub-domain	Title
State/Impact	Biodiversity and habitats	Population trends of farmland birds
	Natural resources	Soil quality
		Water quality - Nitrate pollution
		Water quality - Pesticide pollution
	Landscape	Landscape - state and diversity

Source: Agri-environmental indicator – commitments

Figure 4-3: Climate Change Vulnerability Index, ECA Region



Source: World Bank, 2009

4.3.2. Climate change and environmental risks mitigation by WBC

Albania Agriculture is the most climate sensitive of all economic sectors in Albania, so the impacts of climate change on the agricultural sector represents a serious problem, since the majority of the rural population depends either directly or indirectly on agriculture. The rural poor will be disproportionately affected because of their greater dependence on agriculture, their relatively lower ability to adapt, and the high proportion of their income that is spent on food. The impacts of climate change could therefore undermine the progress that has been made in poverty reduction and could adversely affect food security and economic growth in vulnerable rural areas. Increased exposure to high temperatures, drought, and shifting seasonal patterns, increased incidence of diseases and pests and soil erosion are already beginning to damage agricultural productivity. At the same time, climate vulnerability has been exacerbated by sub-optimal policies, the deficient management of natural resources and associated infrastructure, and poor adaptive capacities. Soil erosion is a huge problem: 60 percent of the territory is affected, while 30 percent of agricultural land has annual soil loss rates of around 20 to 70 tons/ha. As the agricultural sector is the biggest consumer of fresh water, at 60 percent of the total, water resources are an important issue. Extreme events such as floods, droughts and fires have occurred in recent years, but no integrated assessment has been carried out to measure the costs from an economic, social and environmental perspective. Climate change influences a range of biophysical factors, including plants and animals, water, biodiversity and nutrient cycles, as well as the ways in which these are managed through agricultural practices and land use for food production. However, there is still lack of available capacity within the Ministry of agriculture, Food and Consumer Protection and its agencies at regional and local levels to provide information and assist farmers in coping with climate change effects, risks and opportunities. It is essential to mainstream and integrate climate change issues into policy and investment decisions, since changes in agricultural patterns and performance will affect food supply at local as well as global levels. In low-income countries that have limited financial capacity to trade and that are highly dependent on their own production to meet demand, it may not be possible to offset reductions in local supply without increasing reliance on food aid. At the same time, producer groups that are less able to deal with climate change, such as the rural poor in developing countries, risk having their safety and welfare compromised.

Table 4-6: Forecast changes in crop yield and agro-ecological zone under a medium impact climate change[16]

Crop	Coastal lowlands	Intermediate	Northern mountains	Southern highlands
Alfalfa (irrigated)	2	2	4	8
Alfalfa (non-irrigated)	-1	-1	4	0
Grapes	-8	-10	-6	-10
Grassland	-2	1	3	1
Maize	-1	-2	-4	7
Olives	-1	-8		
Tomatoes	0	-2	-3	-1
Watermelous		-1		
Wheat	4	3	11	8

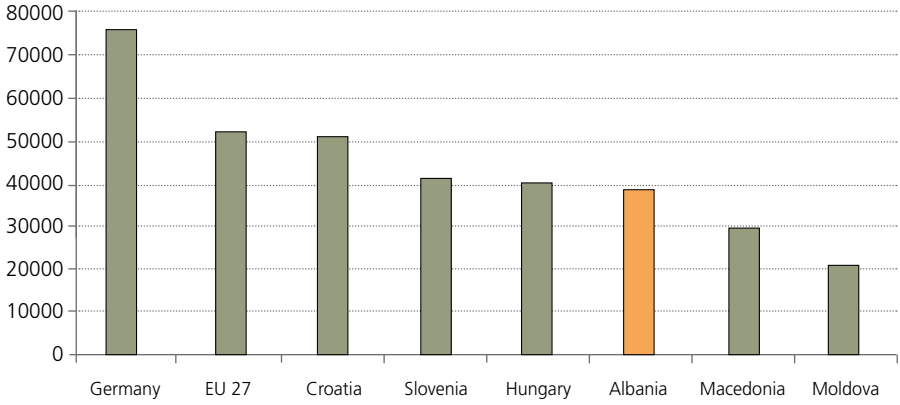
Source: Intergovernmental Panel on Climate Change, Fourth Assessment Report (IPCC) SEE

The main challenging issues for Albania in the area of climate change and environmental risks include: temperatures which are rising and precipitation which

[16] Climate Change Index developed by Baettig et al. (2007) combines three sub-indices referring to a country's exposure, sensitivity and adaptive capacity. The assessment of exposure is based on an index measuring the strength of future climate change relative to present-day natural variability. The index is available on a country basis and includes both annual and seasonal temperature and precipitation indicators. It combines the number of additional hot, dry and wet years; hot, dry and wet summers; and hot, dry and wet winters projected over the 2070 to 2100 period relative to the 1961 to 1990 period. The second sub-index, a country's sensitivity to climate change, is based on indicators likely to increase the impact of climate events. This includes physical indicators, such as available renewable water resources per capita and the extent of air pollution (since particulate matter in the air exacerbates the impact of heat waves); economic indicators of the importance of agriculture to the economy (share of employment and value of assets); and the proportion of electricity derived from hydroelectric plants. The third sub-index, adaptation capacity, is estimated by combining social (income inequality), economic (GDP per capita) and institutional measures. The index uses principal component analysis (PCA) to calculate the sensitivity and adaptive capacity indicators, as well as to combine all three indices into the overall vulnerability index. PCA is a statistical technique that picks the weight given to each component of an index formula in order to best explain the variance in the data. The exposure sub-index uses a simple linear formula to combine the underlying variables and is designed to indicate the impact of future climate change relative to today's natural variability.

are becoming more variable in Albania as a result of climate change. These recent changes will persist and grow more severe over the coming decades. The direct effects of climate change on the livestock sector, particularly beef cattle, chickens and sheep, could be substantial, reducing productivity by up to 25 percent by 2050. The northern-western part of Albania is highly sensitive to floods and more frequent storms. Unregulated urban development has allowed building right up to the shoreline, exposing infrastructure to a high risk of weather-related damage. Impacts will vary according to the extent of the rise in sea level: the projected rise of 42cm (17 and 80 cm according to minimum and maximum scenarios) by 2100 would flood coastal areas and cause significant saltwater infiltration. The direct effects of climate on agricultural yields are related to rainfall, temperature and solar radiation. Storms, heat waves and droughts resulting from changes in the climate are likely to damage agricultural production. Water resources which are abundant in Albania, and according to some forecasts they will continue to be abundant through 2050 under a wide range of climate change scenarios. In many cases, however, additional investment will be needed in irrigation and drainage infrastructure in order to take advantage of these water resources in the agricultural sector. Because of the long impact of climate changes to agriculture output, the high-priority adaptation measures should include improving drainage; rehabilitating irrigation systems; optimizing fertilizer and water application; providing more climate-resilient seed varieties and the know-how to cultivate them effectively for high yields; encouraging the wider use of hail nets; to reduce harvests of grapes and olives which have relatively modest effects on the other crops.

Figure 4-4: Compararative Average Wheat Yields, 2007-09



Source: http://faostat.fao.org

Albania's adaptation deficit has resulted in overall underperformance in wheat yields. Although Albania outperformed regional neighbors such as Macedonia, the country's average wheat yield between 2007 and 2009 was just 76% of Croatia's and 73% of the EU-27 countries. A set of complex factors attributes for this overall underperformance.

As food security will depend on the ability of the country to implement adaptation measures in response to the changes, the national-level of adaptation would have to be given a higher priority in further times. Policy changes and institutional capacity improvements that could be undertaken would have to include: expanding extension service capacity; improving the provision of short-term meteorology forecasts for farmers; and encouraging the consolidation of farmland into larger holdings to facilitate more substantial investments in on-farm technology. At the level of agro-ecological zones and farms, high-priority adaptation measures include improving drainage, rehabilitating secondary irrigation capacity, optimizing

fertilizer and water application, providing more climate resilient seed varieties and the know-how to cultivate them effectively for high yields, and encouraging the wider use of hail nets.

Bosnia and Herzegovina. In recent decades, the impacts of climate change have been significant in Bosnia and Herzegovina with impacts of climate change on agriculture, the environment and food production. and links between the lack of rainfall during the vegetation period and the occurrence of drought and yields of corn and wheat.

GHG emissions. Total emissions of CO_2 equivalents in BH in 1990 amounted to 34,043.49 gig grams (Gg). The collected data indicates that the major source of CO_2 emissions is the energy sector, which contributes 74 percent, followed by agriculture (12%), industrial processes (11%) and the waste sector (3%). Other sources include agriculture, industrial processes and waste. The main sources of methane are agriculture (livestock), uncontrolled (fugitive) emissions from coal mining and waste disposal. The largest volume of N_2O emissions comes from agricultural soil as a result of crop cultivation. It is also important to note that, according to the INC, forests in Bosnia and Herzegovina represent an important sink for CO_2, at 7,423.53 Gg of CO_2 for the reference year 1990 (INC, 2009) Emissions of CO_2 equivalents from agriculture are made up of methane (CH_4) and nitrous oxide (N_2O). Total emissions of CO_2 equivalents in the inventory for the INC were 4,084 (Gg).[17] Temperature. Based on temperature characteristics, the territory of Bosnia and Herzegovina may be divided into three temperature

[17] The agricultural sector in Bosnia and Herzegovina contributes 1,833.51 Gig of CH_4 emissions of CO_2 equivalent. Methane is formed as a direct product of a herbivore's metabolism (gut fermentation) and as a result of the organic decomposition of animal waste (manure). The IPCC methodology is determined by methane emissions for each type of animal (dairy cows, other cattle, sheep, horses, pigs and poultry). The most important source of N_2O in Bosnia and Herzegovina is agriculture. Many agricultural processes utilize nitrogen in the soil, thus increasing the available nitrogen for nitrification and denitrification, which has an impact on emissions of N_2O. The methodology distinguishes three sources of N_2O emissions: direct emissions from agricultural soils; emissions as a result of animal activities; and emissions indirectly caused by agricultural activities. Of these, the largest volume of emissions comes directly from agricultural soils, the treatment of soil, and crop cultivation. This includes the application of mineral fertilizers, nitrogen from manure, the cultivation of pulses and soybeans (which fix nitrogen in the soil), and nitrogen from agricultural crop residues and the processing of peat (INC, 2009).

zones: warm, moderate and cold. The warm zone covers the Adriatic coast and lowland Herzegovina, where summers are hot and winters very mild. Mean winter temperatures are above 5°C, and summer temperatures reach 40°C (in Mostar, Trebinje and Capljina). Mean annual temperatures have a value of above 12°C. The biggest deficit in rainfall during the summer period, and the biggest changes, were recorded in Livno (-21.4%), Bileca (-20.5%), Bihac (-17.0%), Gacko (-12.6%), Banja Luka (-12.0%), Mostar (-11.7%) and Prijedor (-11.7%). As mentioned above, in Sokolac and Doboj there is anexcess during the summer period caused by the area's geographical position. Reduced rainfall followed by higher temperatures during summer in the territory of Bosnia and Herzegovina causes increases in the intensity and frequency of dry periods. The problem of drought in Bosnia and Herzegovina is complex and requires additional research, including the monitoring of rainfall and drought series and their consequences for agriculture, forestry and hydro potential. There is a pronounced deficit in spring precipitation in Herzegovina (Mostar -16%, Ivan Sedlo -11%). Winter precipitation is in excess, with the biggest increase in Sokolac (21.4%).

Climate projections and scenarios. Mean annual temperature in the territory of Bosnia and Herzegovina has risen over the last 100 years by about 0.6°C. Trends differ according to season: the latest trends show an increase during summer and winter, due also to the impact of urban systems and the urban heat island effect. Bearing in mind the geographical position of Bosnia and Herzegovina, the current changes are not as dramatic as in some other parts of the world (INC, 2009), according to the research data and trends recorded at weather stations in the country for the INC. Problems include: Insufficient network of meteorological and agro-meteorological stations; inadequate education for farmers on sensitive climate change issues; insufficient and limited funding for adaptation measures; weak national capacity for comprehensive quantitative and qualitative vulnerability and adaptation (V&A) assessment.

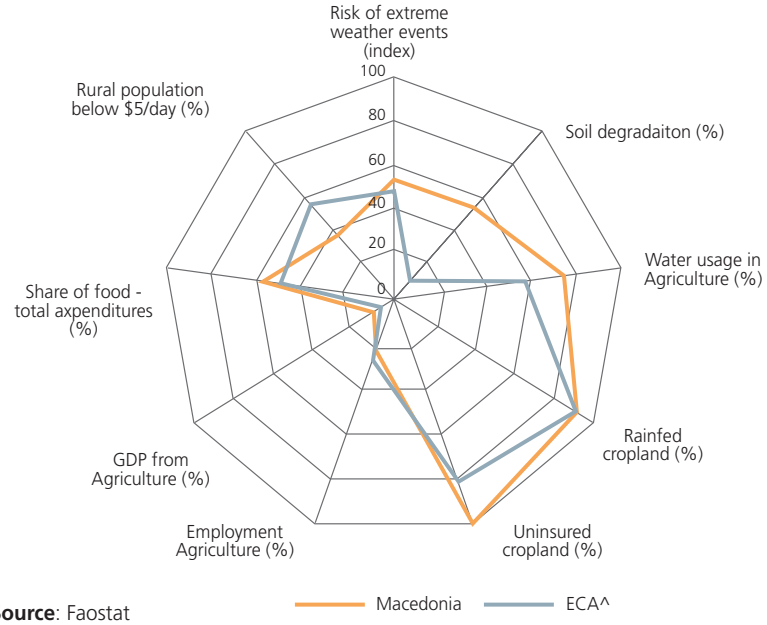
Croatia. The agricultural sector in Croatia has undergone changes during the last two decades as a result of changes in the country's political and economic conditions. In addition, the lives of Croatian farmers have been further affected by the impacts of climate change and alterations in weather conditions. The appearance of dry periods with unexpectedly high air temperatures, sometimes

followed by periods of high rainfall, floods, hail, strong winds and late spring frosts, represents a new reality for Croatian farmers. Such phenomena are not new, but they are becoming increasingly frequent.

Greenhouse gas emissions. The general decline in economic activity during the war in Croatia between 1991 and 1995 resulted in a reduction in total greenhouse gas (GHG) emissions. Total GHG emissions in 2008 expressed as CO_2 equivalents, including removals by sinks, was 31,132 gig grams (Gg) of CO_2 equivalents, which represents a reduction of 2% compared to 1990 GHG emissions (CEA, 2011). The energy sector is the biggest contributor to GHG emissions, followed by industrial processes and agricultural activities. The total share of agriculture in overall GHG emissions varied between 13.9% in 1990 and 10.8% in 2008. Calculations of indirect N_2O emissions from nitrogen use in agriculture are based on two pathways: volatilization and the subsequent atmospheric deposition of NH3 and NOx (originating from the application of fertilizers and animal manure); and leaching and runoff of nitrogen applied to or deposited on soils. Methane emissions from enteric fermentation and manure management represented 41% of the total CH_4 emissions from anthropogenic activities in 1990. From among domestic animals, dairy cattle were by far the largest emitters of methane. Agricultural soil management activities, such as fertilizer application and other cropping practices, were the largest sources of N_2O emissions in Croatia, accounting for 70% of total emissions. There will be a need for new practices and new soil tillage methods that are adapted to the changed climate conditions. These include conservation tillage, no tillage and so-called adaptable soil tillage. New varieties and hybrids suitable for intensive production under abiotic stress conditions will need to be developed. Increased flexibility will be required in crop rotation, with the introduction of new crops and different hybrids or varieties of the same crop in particular production areas. Effective plant protection measures will be needed to combat weeds, pests and plant diseases. Fertilization and the application of soil improvers will have a very important role in future agricultural production under changed climatic conditions. The importance of drainage and irrigation will increase. The timing of sowing and harvesting will change in different parts of Croatia, based on cardinal temperatures. New areas will became favourable for specific types of agricultural production, and at the same time some existing agricultural regions in Croatia will be reduced or lost, primarily because of a shortage of water for irrigation.

Macedonia. Recent heat waves and relative snowfall in the last few winters are "windows" on how the climate might look in the future. Studies of the impacts of these phenomena indicate major changes in agricultural production. Most evidence points to the likelihood of an acceleration in the pace of change in the future. Changes in Europe, based on global circulation models (GCM), are most significant in the Mediterranean and Continental climate zones, and Macedonia is located at the meeting point of the two.

Figure 4-5: Macedonia Vulnerability Indicators



Source: Faostat

Total CO_2-eq emissions in the country for the period 1990 to 2002 ranged from 11.9 to 14.4 million tons. Emissions for the base year 2000 amounted to 14.318 kt CO_2-eq, that is, 7.16 tons CO_2-eq per capita. The main contributor to total CO_2-eq emissions was the energy sector, with about 70% of total emissions.

The second biggest contribution came from the agricultural sector, at between 10 and 15%, while all other sectors contributed less than 10% each. It is clear that the main sources of emissions were agricultural soils and enteric fermentation, which each represent between 40 and 50% of the total CO_2-eq emissions, while manure management and flooded rice fields account for a smaller share. The most vulnerable zone is the Povardarie region, especially the confluence of the rivers Crna and Bregalnica with the Vardar (Kavadarci). Very vulnerable zones are: the south eastern part of the country (Strumica); the southern Vardar valley (Gevgelija); Skopje-Kumanovo valley (Skopje); and Ovche Pole (Stip).

Table 4-7:Expected decrease in yield for vulnerable areas and crops as a result of climate change impacts (%)

Area	Crop	2025	2050	2075	2100
Kavadarci	Grapes	46	50	55	59
Gevgelija	Tomato	75	78	81	84
Strumica	Tomato	72	75	79	82
Stip	Winter wheat	14	17	21	25
Skopje	Winter wheat	8	12	16	21
Bitola	Alfalfa	58	62	66	70
Resen	Apple	46	50	55	59

Source: Faostat

Table 4-8: Expected decrease in Decrease in production due to climate change(tons)

Year	Decrease in production due to cliemate change(tons)			Cost of decreased production(EUR)		
	Winter wheat	Grapes	Alfalfa	Winter wheat	Grapes	Alfalfa
2025	31.806	112.910	62.204	4.104.004	18.211.370	7.023.001
2050	41.926	122.729	66.494	5.409.823	19.194.968	7.507.346
2075	53.492	132.002	70.784	6.902.188	21.774.465	7.991.691
2100	66.504	144.820	75.073	8.581.099	23.358.062	8.476.036

Source: Faostat

The results for projected decrease in yield are dramatic, but even now most of these crops are irrigated, since planting without irrigation is not reasonable. The assumption is that crops will be planted without irrigation, which explains the large decrease. Although more than 120,000ha of Macedonian agricultural land can be irrigated, during the last few years around 30,000ha actually were irrigated. This situation is unfavourable, especially in terms of adaptation to climate change, since irrigation is the best available practice for Macedonian agriculture. Adaptation measures for rain-fed agriculture would further include: genetic measures (new crops and varieties that are more tolerant to drought); land reclamation measures (to increase soil water-holding capacity), including manure, increased organic matter, and some polymers; agricultural practices (soil and water conservation through reduced tillage, water harvesting, mulching etc.); the building of new irrigation schemes and the rehabilitation of existing schemes; building knowledge by education for farmers; and raising public awareness of new adaptation techniques.

Serbia. As Serbia has favourable agro-ecological conditions that have made agricultural production a traditionally important part of the national economy, the vulnerability of the overall economy thus depends to a great extent on factors that affect agriculture, among which most significant factor is the impact of climate change on agriculture.

During the last 10 years, the more frequent and intensive appearance of powdery mildew on cereals, Fusarium head blight, Cercospora leaf spot, sunflower blight, and potato and tomato Alternaria spot leaf was observed. These are all indicators of changed climate conditions, since their development requires high night temperatures in spring and high temperatures in summer, accompanied by showers. Fruit production is particularly vulnerable to the increased frequency of extreme weather events such as spring frost, hail, extremely low winter temperatures, lack of precipitation (in particular in July and August) and/or extremely high precipitation intensity during the growing season. The vegetation period for winter and summer crops is becoming shorter due to the trend towards temperatures above the biological minimum (2003, 2007, 2008). Although these conditions significantly affect plant growth, they do not necessarily lead to a decrease in yield. In the case of thermophile summer plants, high temperatures should not negatively affect development, although big variations in temperature can cause significant plant

stress and increase vulnerability to pests and diseases. Damage spots influenced by high solar radiation intensity and high temperatures can be frequently observed on fruits and vegetables.

The greatest naturally caused agricultural losses in Vojvodina are related to extreme weather events (drought, spring frost, hail, floods). Changed climate conditions also contributed to the change in the structure of pests and plant diseases that was registered in recent years. According to results based on the dynamic downscaling of the SX-G climate model, temperatures in Serbia will increase by 1°C in the 2001 to 2030 period; and by more than 3°C in the 2071 to 2100 period. In the first 30 years of the 21st century, the expected change in the amount of precipitation in Serbia is positive (20 to 30 mm/year), while for the last 30 years the country as a whole will be much drier (with a decrease in precipitation of up to 30 mm/year). Hence, taking into account CO_2 impacts, a significant increase in winter wheat yield can be expected in the range of 28 to 73.6%. The most important economic problems are related to the high costs of introduction, unfavourable bank credits and the undeveloped market. Additionally, farmers have no influence on the prices of inputs and outputs; and subventions for plant production are very limited and highly dependent on the trade sector. It should be noted that the privatization of the food industry is still not complete, which is a source of additional problems. For these reasons, and in this phase of realization, the planned adaptation measures should be focused on reducing evapotranspiration; crop rotation; decreasing spring crops and increasing winter crops in order to make better use of soil water; reducing soil cultivation and improving soil structure; changing sowing dates; and changing crops and cultivars to less demanding varieties. In terms of vine quality and production, the direction of changes should be towards more adaptable varieties and vineyard regionalization, in which production areas will be shifted to regions at higher altitudes that have a more appropriate climate for existing varieties.

4.4. Free Trade Agreements, Food Safety and Standards

4.4.1. Free trade Agreements

Free Trade Agreements (FTA-s) ensure the fulfillment of trading needs, especially trading of goods and services missing in the country, they influence the price reduction, increase of economic competitiveness, they create incentives for the national production to be competitive in the open market through technology improvements, they influence smuggling decrease and create reciprocal influence among different markets due to the different tariff treatment, as well as export production incentives and increase of re-export. In 2012 trade realized through FTA is illustrated in the table below.

Table 4-9: FTA Partners - Total Goods 2012 (millions of U.S. dollars)

	Exports	Imports	Trade balance	Total Trade
Total all countries	1416439	2098012	-681572	3514451
FTA countries	661651	727720	-66069	1389371
All other countries	754788	1370291	-615503	2125080

Source: Eurostat

Western Balkan countries are included in several FTAs, which are illustrated in the table below:

Table 4-10: WBs and Free Trade Agreements

Country	Official Gazette	Into Force	Balance of Dynamics of Liberalisation
Serbia	56/1996	Oct 96	In balance
Croatia	The FTA was incorporated into CEFTA Agreement when Macedonia become a full member of CEFTA in 2006		
Bulgaria	The FTA was incorporated into CEFTA Agreement when Macedonia become a full member of CEFTA in 2006		
Turkey	83/1999	Nov 00	Asymmetrical in favour of Macedonia
EU	35/2001, 39/2001, 27/2004	Jun 01	Asymmetrical in favour of Macedonia
EFTA countries	89/2001, 69/2003	May 02	Asymmetrical in favour of Macedonia
Ukraine	53/2001	Jul 03	Asymmetrical in favour of Macedonia
BIH	45/2002	Jul 02	Asymmetrical in favour of BIH
Albania	47/2002	Jul 02	In balance
Romania	The FTA was incorporated into CEFTA Agreement when Macedonia become a full member of CEFTA in 2006		
Moldova	77/2004	Jan 05	In balance
Slovenia	The FTA ceased on April , 2004 when Slovenia became a full members of the EU. Consequently, the trade part of the SAA was amended to incorporate these changes caused by the EU enlargement including Slovenia.		

Source: Eurostat

Beside the EU as a main trade partner of WB countries, is CEFTA[18], which is a

[18] Parties of the CEFTA agreement are: Albania, Bosnia and Herzegovina, Croatia, Macedonia, Moldova, Montenegro, Serbia and UNMIK on behalf of Kosovo. Former parties are Bulgaria, the Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia. Their CEFTA membership ended when they became member states of the European Union (EU). Croatia is set to join the EU in 2013. All former participating countries had previously signed association agreements with the EU, so in fact CEFTA has served as a preparation for full European Union membership. Poland, the Czech Republic, Hungary, Slovakia, Slovenia joined the EU on 1 May 2004, with Bulgaria and Romania following suit on 1 January 2007. Croatia is to join the EU in 2013. Serbia, Macedonia and Montenegro are also official candidate countries of the EU. At the EU's recommendation, the future members prepared for membership by establishing free trade areas. A large proportion of CEFTA foreign trade is with EU countries.

modern, comprehensive trade agreement and very important for the cooperation and development of these countries. Chapter VI of the Agreement sets out a number of new trade topics to be addressed by the Parties. The Parties have agreed to a combination of specific commitments and evolutionary clauses in areas such as services, investment, government procurement and protection of intellectual property. In summary, the main objectives for each topic are:

- **Services:** a progressive liberalization and mutual opening of the services market.
- **Investment:** ensuring stable and equitable treatment of investors and complementing the trade liberalization gains with investment opportunities.
- **Government procurement:** a progressive and effective opening of the governments' procurement markets by May 2010.
- **Protection of Intellectual Property:** ensure adequate and effective protection of intellectual property in accordance with international standards, in particular with TRIPS.

These new topics are challenging, not only to the CEFTA Parties, but to all countries and trading blocs throughout the world. The CEFTA Parties have sought technical assistance to identify options available to them in order to meet the commitments undertaken and to ensure that their policies can adapt to the dynamic environment in which they must operate. They are co-operating closely with the EU and the WTO as appropriate on different aspects. In the table below are shown the trade flows for 2011:

Table 4-11: Export and Import CEFTA, 2011

Exports		Imports	
Intra CEFTA	7241409	Intra CEFTA	6792189
Row	22252946	Row	48825420
EFTA	482248	EU	30198365
Turkey	608949	EFTA	872409
Russia	1306051	Turkey	1701982
China	212247	Russia	5099573

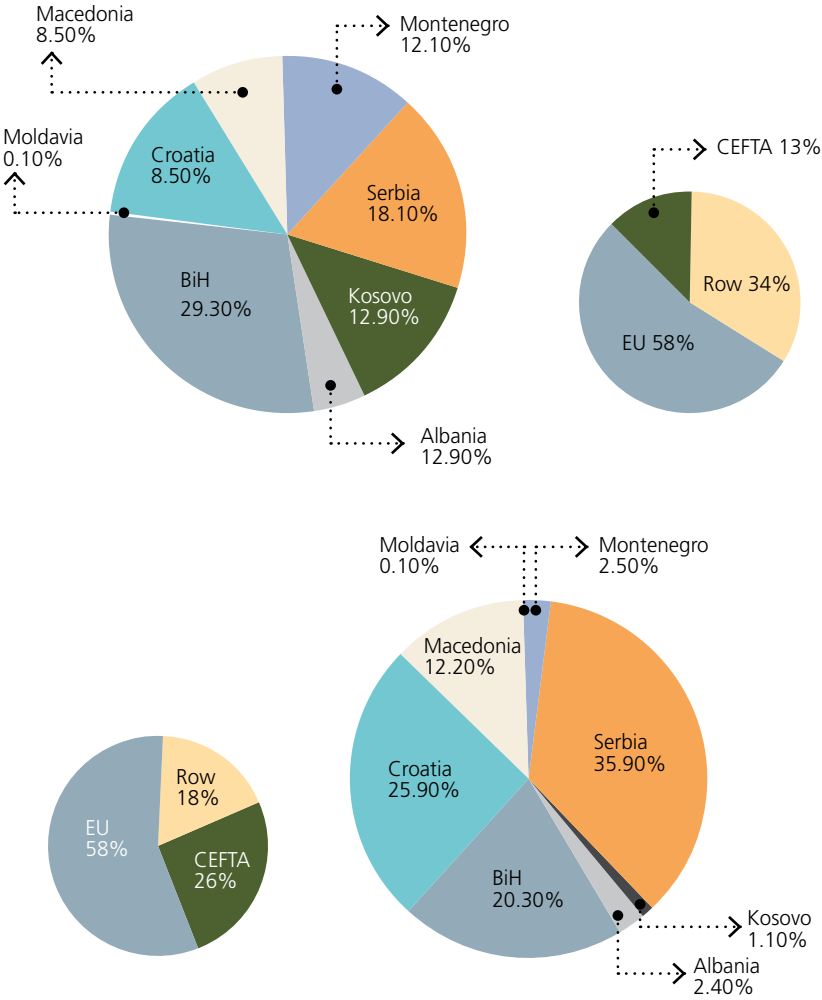
Source: CEFTA Parties 2011

Table 4-12: CEFTA Trade volume, 2009-2011

	2009	2010	2011
CEFTA	11.274.273	12.595.999	14.035.306
Rest of the World	55.285.090	62.173.288	71.019.142
Agricultural products			
CEFTA	3.231.098	3.540.203	3.807.670
Rest of the World	6.539.601	6.903.745	7.899.418
Non-agricultural products			
CEFTA	8.043.175	9.055.796	10.227.636
Rest of the World	48.745.489	55.269.543	63.119.724

Source: CEFTA Parties 2011

Figure 4-6: Exports/Imports of WB countries with CEFTA



Source: CEFTA Parties 2011, 2011

In the 2000-2010 decade the level of protectionism in all countries was gradually reduced, mainly due to the implementation of the CEFTA 2006 - Central European Free Trade Agreement 1. Substituting 36 bilateral agreements, it was signed in December of 2006, by all the Western Balkans plus Moldova, thus affecting a market of almost 27 million consumers. The CEFTA has enabled progress by containing trade barriers and increasing transparency, therefore contributing to the overall growth of exchanges on a regional level, and representing an important step towards the complete integration with international markets. Although not directly connected to the WTO, signing the Central European Free Trade the Agreement represents complete respect of the principles dictated by the World Trade Organization, of which, as of June 2011, only Albania, Croatia and Macedonia are members. For Bosnia Herzegovina, Montenegro, Kosovo and Serbia, negotiations are underway.

Among the measures taken for the protection and support of markets, all countries except Kosovo use trade barriers, while other measures are used on a more ad hoc basis: Croatia uses market interference (for example, defining quotas for specific products), Serbia uses subsidies for exporting goods (forbidden by the WTO except for some products which are recognized and therefore given special treatment) and Bosnia uses administrated prices.

4.4.2. Food safety rules and standards and their implementation

As the European Union is an important trading partner of most of the countries discussed here, an exact knowledge of the EU's food safety rules is essential. The EU has applied the WTO agreement on SPS (Sanitary and Phytosanitary Measures). This agreement sets out the basic rules but WTO members have the right to set out their own standards although these five elements are necessary:

1. *Harmonization* – harmonization of SPS measures on the basis of international standards (the FAO/WHO Codex Alimentarius Commission for food; the International Animal Health Organization for animal health and the FAO's Secretariat of the International Plant Protection Convention for plant health),

2. *Transparency* – governments are required to notify other countries of any new or changed SPS measures which could affect trade,

3. *Scientific basis* – SPS Agreement allows countries to set their own food safety and animal and plant health standards but they should be scientifically based,

4. *Nondiscrimination* – foreign products should be treated no less favourably than domestic products,

5. *Equivalence* – members shall accept the sanitary or phytosanitary measures of other members equivalent, even if these measures differ from their own.

Table 4-13: WTO status of the selected countries

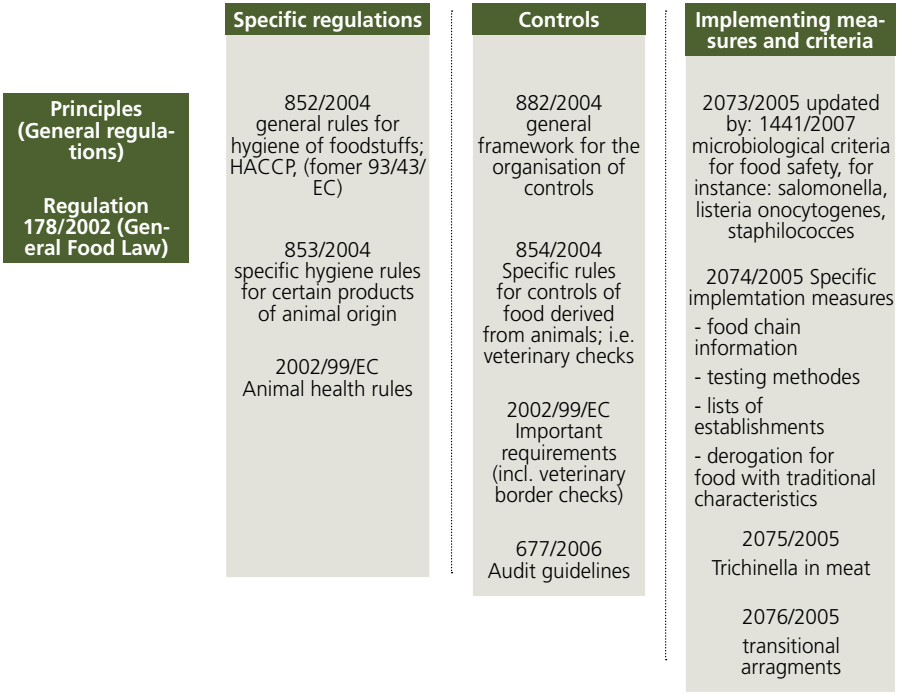
WTO members WTO observers*	WTO members WTO observers*
Albania (2000), Croatia (2000), Macedonia (2003)	Bosnia and Herzegovina, Montenegro, Serbia

Source: WTO website

The importance of WTO's SPS measures is underlined by the WTO status of the selected countries: Albania, Croatia and Georgia joined the WTO in 2000. In the next few years the present observers will become members; therefore, they also have to comply with WTO rules on sanitary and phytosanitary standards as soon as possible, as noncompliance can be an obstacle to successful participation in international trade for transition countries. In light of the location and membership negotiations between Western Balkans and the EU, food safety issues are of increased importance; being a question of market access and export competitiveness. The long-term objective for these countries is the development of an EU compliant food safety system, while in the short-term they have to develop a lean, EU compatible regulatory and institutional framework for food safety. An example of EU food safety regulation on meat products can be illustrated in the figure below:

Figure 4-7: Food Safety EU Low

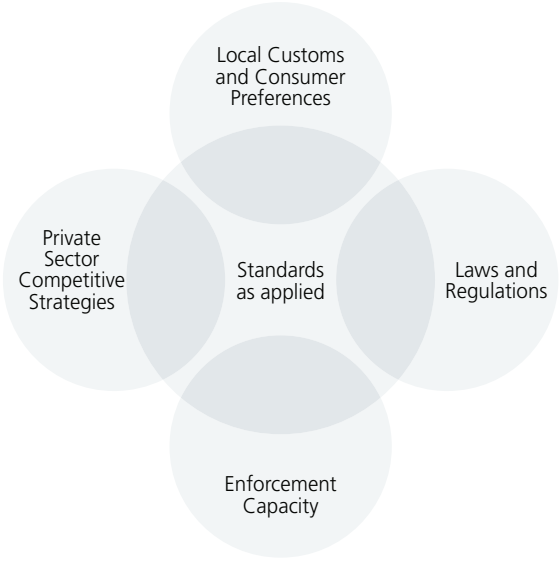
Key components of EU-law with respect to Food Safety



Source: European Commission, Guidance Document (I), 2006; Foreign Agricultural Service

The introduction of higher food standards in line with a strict controlling system should be a part of this. However, progress in adopting these measures seems very limited (ICO, 2008). A special pricing system, which encourages farmers to produce high-quality products, could be an element of it (EBRD, 2007). In addition, small-scale farms do not often have sufficient resources for applying and maintaining food security systems. According to FAO (2007), realistically, less than 10% of farmers produce enough to compete on a higher level and to invest in expensive new technologies.

Figure 4-8. The evolving standards environment



Although the land has been privatized in the Western Balkans, the related services such as veterinary practices and extension and quality testing remained in state hands. Moreover, inspection is regulated by a number of different authorities, which makes organization and harmonization more difficult (ICO, 2008). However, remarkable steps have been made. There are independent food safety agencies in some countries (Croatia, Bosnia and Herzegovina, and Macedonia) some of which have already been acknowledged by the EU. For example the Croatian Food Agency received its ISO 9001:2008 certificate in January 2009. Serbia seems to be lagging behind as the food safety law has not yet been adopted and the food safety agency has not been established. However, it should be kept in mind that the establishment of a food safety agency alone cannot solve food safety problems if it does not come with sufficient resources like qualified and well-paid staff, financial resources for testing, well-equipped laboratories with satisfactory capacities etc. The role of international donor organizations is essential.

The food safety and agricultural health standards are at the same time perceived as a barrier to the continued success of their exports of high-value agro-food products (including fish, horticultural, and other products), either because these countries lack the technical and administrative capacities needed for compliance, or because these standards can be applied in a discriminatory or protectionist manner. Rising standards serve to accentuate underlying supply chain strengths and weaknesses and thus impact differently on the competitive position of individual countries and distinct market participants. Some countries and/or industries are even using high quality and safety standards to successfully (re-)position themselves in competitive global markets. This emphasizes the importance of considering the impacts of food safety and agricultural health measures within the context of wider capacity constraints and underlying supply chain trends and drivers. The key question for WB countries is how to exploit their strengths and overcome their weaknesses such that they are winners rather than losers in the emerging commercial and regulatory context - the impact that food safety and agricultural health standards are having on the performance of WB countries with respect to agricultural and food product exports. The standards can, and indeed do, act to impede exports, either because explicit bans are placed on imports of particular products or the costs of compliance with stringent requirements diminish export competitiveness, and suggests that the proliferation and increased stringency of food safety and agricultural health standards are creating a new landscape that, in certain circumstances, can be a basis for the competitive repositioning and enhanced export performance of WB countries. Thus, standards can be a source of competitive advantage; WB countries may have little choice but to respond as standards evolve and should do so in a manner that is to their best strategic advantage. Key to this, however, is the ability of WB countries to upgrade capacity and make necessary adjustments in the structure and operation of their supply chains. It is important to understand also that there are significant differences in tastes, diets, income levels and perceptions that influence the tolerance of populations toward these risks. Differences in climate and in the available technology (from refrigeration through to irradiation) affect the incidence of different food safety and agricultural health hazards. Standards reflect the feasibility of implementation, which itself is influenced by legal and industry structures as well as available technical, scientific, administrative and financial resources. Some food safety risks, for example, tend to be greater in WB countries due to weaknesses in physical infrastructure (for example standards of sanitation and access to potable water) and the higher incidence of certain infectious diseases.

There is undoubtedly a need for WB countries (as well as their exporters) to be proactive when facing new food safety and agricultural health standards. While the challenges may be immense and there are undoubtedly numerous other ways in which scarce resources can be spent, it is important not to be pushed into action by a major crisis. By thinking strategically, the enhancement of capacity can be programmed into wider and longer term efforts to enhance domestic food safety and agricultural health management systems and export competitiveness. The alternative is that potentially large-scale investments are required over a protracted time period in order to 'put out fires'. In all of this, there is a need for the public and private sector to work together in order to identify the most efficient and effective ways in which capacity can be developed. Food safety and agricultural health controls must be seen as a collaborative effort.

5. SWOT Analysis

Collected data and findings enable elabouration of a SWOT analysis. This way it is possible to efficiently organize gained knowledge and indicate the main strengths and weaknesses, opportunities and threats the WB countries will meet in the future agro-industry. This information could be extremely useful to policy decision makers in agriculture, as well as for Trade Unions in their efforts to cooperate with other actors in the food industry, in industrial relations, in the tripartite upgrading of communication for the purpose of new sustainable job creation as well as joint regional TU activities on young peoples' employment in a modernized value chain and vertical agriculture and industrial management.

5.1 SWOT of Agricultural Policy and Support Services

Strengths	Weakness	Threats	Opportunities
Agricultural policy and support services			
Development of medium-term or long-term vision on agro industry development	Some budgetary support measures are partly comparable with the measures of cap of EU(MO)	The risk is that across the region the pressure for extension services to help implement EU measures, such as IPARD grants or cross-compliance checks for subsidy payment, will almost entirely squeeze out their core advisory work.	As the EU is struggling to reallocate budget funds from market support to structural measures, WBC can take a shortcut by making structural support the cornerstone of agricultural policy
WBC Financing/budget support and systematical planning increase	Insufficient budgetary support (per capita 12 euro, in EU 130 euro (MO)	The European Commission, with its memory of food overproduction in the EU and huge budget costs for storage and disposal, has little interest in helping farmers increase production.	
A number of regulations on incentives in agriculture and food industry were adopted	A dominant source of investment in agriculture since the 1990s is the agricultural budget, which oscillated heavily and has a tendency towards both absolute and relative decline.	WBC have a lot of catching up to do before they can compete equally with the EU member states, and therefore there is still a great need for agricultural extension. Since the EU is unlikely to fund or even encourage such initiatives, the WBC governments must be determined to meet the needs of their own farmers and rural population.	

WBC governments moved actively to develop a market in agricultural credit, and have set up credit lines disbursed by several competing banks.	The agricultural producer could not survive without protection and subsidies of the state.		
Growth of rural bank branches and an increase in bank understanding of rural finance	Many farmers still use barter, family borrowing, or other alternative sources of financing, or simply do not invest in agriculture at all.		
Farmers are increasingly rejecting the traditional barter deals, whose hidden interest rates often make them far more expensive than bank loans.	Government support for investment characterizes: non-harmonized and non-transparent support policies, including complicated application procedures		
Agricultural education			
Internationally harmonized educational system (according to Bologna)	Suboptimal extension services (AL)		
There is up-to date knowledge available as well as free extension service for farmers for instance.	To a high number of higher education institution (Universities, high schools)(BH)		
In all WBC, there is well-developed network of agriculture schools where education is free	Research and education institutes lack links with the international research network(MC)		
Some institutions and organizations are active in creating links between R&D, universities and SMEs. (Chamber of Commerce, State Agencies and agencies for SMEs	Low correlation of academic degrees with professional carriers		

Programmes for agricultural producers are adequately presented in the mainstream media, as well as in other specialized publishing media	Weak interaction of the higher education institutions with the business sector		
Research & Innovation & technology			
Public Research and Development Systems are wide spread and developed throughout the WBC	National priorities for research related to food consumer science. As a result, research efforts in this area are not coordinated and are many times scattered between different research institutions, overlapping and even duplicated	The strength of the agriculture sector production could lead researchers and other stakeholders to focus on production with poor consideration for market(RS)	Rapid transfer of knowledge from research and extension service (MO)
R&D Institutes and human resources are highly valued	Governmental bodies do not cooperate between each other in a specific supporting programme; lack of multidisciplinary approach and applied research (*vs.* fundamental research)	Traditional way of production, no application of modern technologies, difficulties to meet the emerging needs of the market, resistance to the innovations, and lack of high-quality products. This is mostly caused with the lack of dynamics, knowledge and mobility of the rural working population, with limited	Increased scientific support to legislative activity
Faculties- Faculty of Agriculture and Faculty of Technology with long tradition, rich experience and qualitative R&D staff (RS)	As a new field, food consumer science or related field, is often not put high on research priorities	Legal barriers in international cooperation. Bureaucracy in science(RS)	Increased scientific support to policy making activity
High level of scientific knowledge in the agro-food sector(RS)	Investments in science in percentage of GDP are lower than international standards or EU guidelines for positive effects on the economic development.	Research results not applied in practice(RS)	Clear, Sufficient IP framework

Research institutes (food technologies, field crops, veterinary) (RS)	Limited R&D from private sector	Lack of essential cooperation and networking with international research institutions(RS)	more rapid technological development, strengthening of education and institutions that support development of agriculture(MO)
Skilled human resources in the scientific field (food, veterinary science, agriculture, health, biotechnology, packaging and conservation)(RS)	Weak links between farmers- producers and R&D, advisory and business services	Advanced international research	Established new policies at the national level stimulating RTD in the regional agro-food sector. (RS)
Well-developed control laboratories(RS)	Lack of modern laboratories and technology(RS)	Lack of adequate advisory services for fruit production, especially in the field of IPM and organic	New supporting R&D programmes at European and Regional level
Areas of competence through the whole food chain(RS)	Poor infrastructure for pilot plants(RS)	Agro-economics and farm management insufficiently developed in research institutions	New legal requirements urging increased investments in R&D and Innovation activities
Good networking with national and regional governments and other policy makers(RS)	Most food companies are SMEs (lack of resources for R&D activities) (RS)	Limited advisory capacity for voluntary standards compliance (BRC, Global GAP, PDO, PGI)	Availability of EU funds designed for R&D
Good level of the stakeholders' consultation on food policy and research(RS)	Insufficient risk mitigation, in particular anti-hail measures (nets)		investments (science parks, incubators, laboratories) (RS) New networks supporting innovation activities
Marketing			
Agro-processing firms, supermarkets and agro-dealers are adopting regional marketing approaches to expand their markets within the region	Under-developed marketing channels (due to lack of marketing know-how and poor market information) (AL)		Modernization of agriculture is one of the national priorities(MO)

A number of other extension service providers are now operating alongside state systems, including the Rural Network and several private companies. Such diversity and competition is good for the whole system, but there is a pronounced tendency for private advisors to concentrate on larger farmers and on specific topics, such as pest control and the preparation of business plans and credit applications	Poor marketing of products unregistered trade channels.(MO, AL)		Strengthening of market infrastructure(MO) The need to better organize the marketing chain and attract investments in storage and food processing, in ways that foster competitive price formation and offer small producers, a choice of market outlets.
Business infrastructure			
National network easy to build due to the size of WBC and the high concentration of key players Consumer associations are developed on regional basis (with big differences from country to country)	Weak organization of farmers (AL) Cooperation among farmers scarce (AL) Absence of effective producer associations represents a bottleneck for applied research, dissemination of information and extension. Business Development Services are underdeveloped		Growing importance of new business associations (new cooperatives, clusters, horizontal and vertical integrations) that will facilitate eventually the adoption of new strategies. This will create an additional demand for FCS input

5.2 Swot Analysis of Agriculture Structure

Strengths	Weakness	Threats	Opportunities
Resources			
Abundant natural resources available and conditions for production (land, climate, water resources),	Under-utilized natural and technical resources(RS)	High energy costs	The importance of the food-industry in the region should play a role in inciting public and private research and other activities related to FCS
Relatively non-polluted environment and agricultural resources,	Genetic resources. Illegal use of club varieties by the majority of the users	increased dependence on petroleum, gas-related fuels and products significant seasonal variations in the products' demand	The food-industry employs a great deal of the active working population in all WBC
Aeolian, thermal, restorable sources,	Weak guarantees regarding quality seedlings produced in WBC, including variety types	environmental constraints due to the very rich and sometimes rare ecosystems that reside in WBC	EU policy for RES
Richness in biodiversity and genetic resources	Use of non-certified seedlings, resulting in low yields	The agriculture sector possesses threats that are principally connected to the level of available energetic technology, RE sources, wind, soil,	CO_2 market
Good agro climate conditions with climatic and geographic diversity favourable for food production, on the crossroads of major European corridors with good access to different markets	Poor transport infrastructure (road, rail)	Genetic resources: illegal propagation of club varieties sanctioned by the UPOV in the future in conformity with the International Convention for the Protection of New Varieties of Plants	Increasing awareness for environment

Strong base in raw materials and some premium products(RS)	Strong base in raw materials and some premium products(RS)		Financial support by EU
	Weak guarantees on the quality seedlings produced in BH, including about variety type		structural funds
	Frequent power cuts in rural areas penalizing the processing industry		Recent pricing policy (price of kWh)
Land			
Good agro -ecological conditions for agriculture production	Land reform programs creating private property rights, state property inventories, and illegal actions (AL)	Unfinished restitution and lack of capacity to manage the tendering and rental process, not to mention political resistance and local vested interests (RS)	The impact of improvements in the functioning of the land market – positive changes in farm structure (AL)
Favourable geographic location, arable land, favourable climatic conditions, uncontaminated soil(RS)	Land unused, small farm size on average less than. 2 ha - compared to 23 ha in EU-25. Fragmentation severely hinders rational utilization of land(AL) Old age households	Land rights and land administration in WBC and EU standards on public property and restitution not harmonized	
The key policy step in the land market was the Law on Agricultural Land, which put on the rental market significant state land resources that previously were generally underused and for which rent was not paid.(RS)	Subsistence farms with no market orientation family labour(AL)		

	Non-regulated land complex, small estates and plots of husbandries Inadequate solution of usage of state-owned land		
Labour force, agrarian population			
Sector's large share in the overall active population	In all WBC countries, small-scale agricultural producers, particularly in marginal areas	Concentrated development of agriculture in some parts of the country, may influence further depopulation and underutilization of natural resources (MO)	
38% population live in rural areas (MO)	Unfavourable age and education structure of farmers, who are hostile to innovation or do not have the capacity to adopt new technologies and marketing strategies, with limited investment capacities	Labour force drain – the outflow of highly skilled or qualified young people from a country (RS)	
There is still plenty of workforce that looks for additional employment(MO)	Emigration of the most capable young rural people to other sectors, to urban centers or abroad due to low attractiveness of agriculture (image and income security) and poor rural life quality	Migration from rural areas	
Having tradition in agriculture production	Lack of labour force in certain regions		
	Producers' know-how. Technical shortcomings, especially when it comes to IPM, organic		
	Wage levels are low compared to EU in rural areas		

Production structures			
The gradual but noticeable emergence of a new class of private commercial farms, many of them fully up to the best European standards taking full advantage of modern technology and funding possibilities and expanding whenever opportunities arise	Production structures fragmented(AL)		
Most production sectors are still dominated by large numbers of small farms producing in traditional ways and marketing either through informal channels or supplying processors from a weak bargaining position.	Small-sized production plants not meeting technical requirements and technology challenges(RS)		
Even formal market and processing structures	Not enough startups or growth of companies (in number and in size) (RS)		
Heavily dependent on a large number of very small suppliers; as an example, almost 60% of milk deliveries to dairies come from farms with five or fewer cows.(RS)	Evidence of international quality standardization is still rare because of the atomic structure of agriculture		
Small farms dominate WBC agriculture	Obsolete equipment; primarily agricultural machinery and in particular implements		

Undeveloped food processing sector with little local competition. There has been a relatively small FDI in food processing, with the notable exception of the privatized sugar refineries and some dairies	Obsolete technology of lines for heat treatment of bottled and canned products.		
Positive trends in cropped areas, yields and volumes	Lack of information dissemination about new technologies among producers		
Emergence of larger fruit producers	Insufficient use of potential new crops such as asparagus, artichoke, and aromatic herbs for export and domestic (longer term) markets		
Suitability of small producers to market needs			
Machinery			
	Outdated equipment and technology in production;(MO)	Structural deficits	
	Obsolete technology of lines for heat treatment of bottled and canned products.	Low technological and capital efficiency(MO)	
	Uneven distribution of storage capacities	Lack of information dissemination about new technologies among producers	
	Low mechanization level for raw material handling		

Food Industry			
Consolidated agricultural and food industry tradition (RS)	Under-developed food processing industry (AL)	Oversized production capacities in some food processing industries (RS)	The transition character of the WBC economies offers an opportunity to FCS researchers to strengthen their position, as a number of phenomena such as fast primary production restructuring, agro-industry, concentration super marketization, EU integration, changes in consumer purchase power, will take place
Well-developed food industry (edible oil, sugar, dairy, brewery, beverage, vegetable, fruit, feed, bakery, milling...) (RS)	Low efficiency of small- and medium-scale domestic	Placement limitations.	Capabilities of better land usage through spatial and subsequent sowing
Comparative advantages of particular micro regions,	processing industry that limits capacity to invest in R&D and develop long-term strategies (product strategies, brand, etc.)	Exporting limitations.	More efficient production finalization in own processing capacities
Perfect conditions for multifunctional development of agriculture (convenient natural resources for the development of tourism, catering, energy production	No medium-term or long-term vision on research and development	Insufficient state capabilities for the support of agriculture development.	Refinement of processing technology of agricultural products development of multifunctional production.
Tradition in conventional agricultural production	Extensive production per structure and outturn	Lack of qualitative sources for development and functioning.	Development of SMEs. in the area of craft refinement of agricultural products
Relatively qualified and educated work force	Poor participation of cattle breeding.	Non-existence or inadequacy of law regulations.	Integration of production, processing and placement through cooperatives

Development of processing capacities	Insufficient usage and bad economic conditions for the usage of water potential for irrigation.	Insufficient institutional influence on development	Establishment of ISO standardization and improvement of production quality.
Existence of educational and scientific institutions	Weak organization of husbandries.		Higher production of rapes and investments in refineries for bio-fuel production
Existence of agricultural advisory service	Insufficient state support for the agriculture development.		
Intensifying of cattle breeding production.	Old husbandries problem and devastation of villages.		
Increase of irrigating areas Intensifying of herbal production by changing a production structure and by more investments in particular production lines	Production capacities are often underutilized: luck of roads, transportation facilities, small size enterprises, prevalence of households in agricultural production, modern IT infrastructure is seldom used, what impede effectiveness of relationship between chain actors		
Planned regulation of land areas	Processing industry high dependence on manual labour, due to lack of automatic filling equipment		
All these significant changes will require from the stakeholders to understand quickly what happens on the domestic markets			

Value chains			
Numerous efforts on horizontal co-operation between farmers have already been made	Absence of inter-firm clusters	Taking into account that most foreign enterprises possess their own quality control and distribution divisions, many farmers may experience problems with marketing if they want to supply foreign companies.	The underlying need for effective supply chain management to include quality management criteria prospective including regional WBC suppliers in a regional and later in global IT-standards and supply chain management techniques. Generally, introduction of these practices differentiates international retailers from local competitors.
They have resulted in the creation of cooperatives supplied by the farmers' own production	Weak organization and lack of horizontal and vertical channels (MO)		Additionally, cooperation receives as much attention as vertical coordination because it provides operational as well as strategic advantages for retailers. On the operational side, securing appropriate partners makes the introduction of supply chain management less costly and less time-consuming.
Highly integrated value chains with big group producing raw material, processing and distributing. (CO)	VC management practices were just in the process of being installed (MO/AL)		The important role of quality in overall VC management force WBC suppliers to improve quality and start to address quality management throughout the VC
Important share of food consumed domestically	Lack of arrangement between farmers & processors		

integrated production-and-trade companies, a number of other companies also chose to establish large farms rather than buy from farmers.	One of the infra-structural issues that hinders vertical integration efforts in the agro-food supply chain is connected with scale inefficien-cies in the agro-food enterprises		
This is creating a system of vertical integration similar to that in former Yugoslavia, with the difference that the owner is a private company rather than the state and there is now no organized system of cooperatives to pur-chase from smaller producers.	Expensive seedling		
Productivity			
	Low labour productiv-ity Low intensity, (MO)		
	Low volume of production per holding;(MO)		
	Poor internal transpor-tation infrastructure		
	Underdeveloped ir-rigation and drainage systems (AL)		
	Low technical level of production (MO)		
	Unfavourable com-petitiveness on (both the domestic and foreign) market, and extraordinary low profitability (RS)		
	Quality issues in agri-business are mostly addressed by foreign investors		

Agricultural prices			
	Majority of the production is uncompetitive as far as the prices are concerned (MO)	World Food Prices have and will in the future,have a negative implication for companies who import raw materials for processing, as well as all agricultural inputs are imported, These companies are unable to increase the price of the produce in same proportion as that of the raw materials. High Cost of Supply of Goods**:** According to most of the companies and institutions in the agro-food sector, there appears to be concerns about the cost of supply of goods and services.	
	Relatively high prices of agricultural products (MO)	Production systems do not allow industry players to benefit from economy of scale	
	Group of food commoditisers above price than in EU- no competitive, fruits, potato, poultry, pig meat, milk and dairy products. (MO)	Many manufacturers chose to control their own production rather than contracting with farmers for raw materials	
	Some of big retailers also chose this approach and established large cattle, pig, and fruit farms to supply their stores. This is especially common in the meat sector, where prices fluctuate markedly and quality standards matter hugely.		

	Big trading companies in Serbia also have the biggest farms for producing meat. This means they secure access to raw materials at relatively constant prices, but it results in farmers being excluded from the retail chains and seeing their market opportunities diminish rather than expand.		
	High price fluctuations of agricultural products due to production oscillation, caused by non-coordinated action of the sector stakeholders		
Market			
Ongoing efforts to comply with the requirements for accession to the WTO and with the acquis communautaire (BH)	Commercial agricultural market production, except for the wine and partly milk sectors, is at the very beginning (MO)	Old networks need to be handed over to new generations before the senior researchers retire.	Candidate country's status (CO)
Bilateral market access (BH) diagonal cumulating of origin intra CEFTA (BH)	Montenegro is net importer of agro-food products export import ratio 28%(MO)	Presence of different ethnic groups and tensions between them can reduce cooperation and information flow	The Accession Partnership between Croatia and EU sets the following priorities: "Ensure adequate capacity to take up EU-funded research projects" and "continue to take and implement actions to facilitate the integration into the European Research Area."(CO)

Natural healthy raw materials meeting consumer expectations (Banned GMOs crops production) (RS)	Used as dumping for groceries (AL)	EU access blocked by Greece because of the country name (MC)	EU funds promote regional cooperation (MC)
Good geostrategic countries station for export	lack of market functions understanding(AL)	future processes of integration and opening of markets will lead to a change in market channels and additional pressures will be put on prices(MO)	Integration to first the regional market (CEFTA) and to the European market will expose WBC producers to the competitors and oblige them to improve their performance. This shall be a great incentive for producers and processors to better known consumer behavior and expectations, and therefore invest more in R&D or rely on Business Services./WBC)
Consumers raising preference to buy domestic products if good quality (AL)	less developed market infrastructures (MC)	High level of competition	Opportunity to cooperate with EU as the associated or candidate country(RS) Market and consumer behavior changes
Links between food and tourism industries	Producers are dominantly oriented to domestic food market and presumably therefore interested in consumers preferences and behaviour (WBC)	High barriers of some countries	In some countries (e.g. Slovenia) the increased interest of urban population for rural "values" or the importance of farming activity (SL)
Different types of production modes, their impact on the environment and the perception of consumers (WBC)	Unsatisfactory export of agro-food products, and structure of export (RS)	Absence of reaction of the State regarding cartel and monopoly positions (CO)	Impacts on landscape, environment and, tourism might trigger new FCS related research but also extension and services

Possibility to develop regional co-operation (common language and old Yugoslav researchers/ professional networks)	Production not created according to foreign market demands	Increased vertical integration and cartel / monopoly position of the main agro-industrial groups(s)/RS)	Image of food in relation to the production area
Market access to the Russian Federation market opportunities –either directly or indirectly through Serbia, Turkish market thanks to bilateral agreement	Informal markets play a major role in Serbia, with a high proportion of most	Opening of markets will lead to stronger competition, that might endanger great part of the commercial production;(MO)	Establishing and strengthening of the former marketing channels (Croatian coastline, Serbia and B&H)(MO)
	products consumed or processed on the farm or sold direct to neighbors or through	Due to the volume and quality, as well as preferences of foreign goods, entering of bigger retailing systems will endanger economic position of individual agricultural sectors(MO)	Long term possibilities in food market (tourism, gastronomy, branding) (RS)
	farmers markets. Products that reach consumers through these short informal routes	High competition on the domestic market from CEFTA countries and Turkey	Positive global trends in fruit and vegetable demand, including the regional and domestic market, Worldwide increase in food intake, implying increased demand for food, Growth of demand for raw materials by processors, products with indication of origin
	substitute for imports and make a highly significant contribution to the balance of payments,	Unfair competition of highly subsidized products from the EU	Regional market eased by CEFTA. Proximity of EU markets

	household income and the food security of some of the poorest members of society.		
	Volumes of single producers insufficient for export markets		
	Discontinuity in production		
	Lack of horizontal organization		
	Lack of organized purchasing for fresh fruit and vegetable market		
	Breach of contract in regard to payment of collected products,		
	resulting in delays and nonpayment of the full delivered goods, especially from large retail companies		
Competitiveness			
Health and primary education, above the average (SR)	Limits as to why WBCs cannot make substantial improvement of their competitive position	In a global environment, competition remains a threat for national farmers and companies	For the time being, quality of certain domestic products is often perceived to be of higher quality as imported food.
Electricity generated from renewable sources in % of gross electricity consumption (37.4% RS)	Behind other WBCs in institutions, Innovation factors, labour market efficiency, and business sophistication (RS)	Multinational companies compete for same market with national companies and the competitiveness is based on price, quality of produce and distribution network.	Again this can play in favour of a strong position of the food industry in the Balkans and as a consequence the interest by public and private sector to invest in FCS

BH progress, SAA/IT and CEFTA conclusion	Non-efficiency and non- competitiveness of agro-food industry (low volume of production, technological backwardness, lack of investments, market inefficiency) (MO)	Trade liberalization, high food prices, export bans, land acquisition by foreigners, civil strife, non-tariff barriers and natural disaster are the key threat to the agro-food industry of WBC	
Progressively, higher standards of production and transparency of production needs to be put in place (almost fully achieved in Slovenia and ongoing in other WBC).	Lack of quality assurance system (RS)		
	Institutional capacity for preparing and carrying out bilateral and multilateral negotiations, as well as for implementing has to be strengthened: lack of staff (BH)		
	Lack of quality controls for both inputs and outputs (AL)		
	In many WBC, the absence of national accreditation results in a monopoly by foreign certification bodies for the certification of organic production, Global gap, Geographical Indications. As a result, the certification fees of these foreign entities being high, products are mostly certified for export markets		

5.3 Swot Analysis of Products

Strengths	Weakness	Threats	Opportunities
Food production			
Tradition in agriculture (MO)	Low level of finalization of agricultural products(MO)		Development of traditional certified produces in greater volume (MO)
Evident positive changes in production and institutional frame during the last period (MO)	Agro-food industry has unfavourable size structure of enterprises		Domestic brands development
Some of the products show price competitiveness (wine, lamb meat, some vegetables) (MO)	70% of enterprises in the sector employ less than 15 workers, and only four enterprises more than 250. (MO)		
Large number of local, high-yielding varieties and hybrids(RS)			
Cereals crop			
The production of cereals is negligible (MO)	Variety of microclimates and soils, enable production of wide range of crops (AL)	Absence of crop insurance	
Cereal crop production (wheat, barley, rye, oats, maize, millet and sorghum) takes up about 60% of the total seeded areas (RS)		Diseases (Erwinia, phytophtora)	
Maize. Maize is predominantly present, with more than 1.2 million seeded hectares, RS ranks number 5 in EU (RS)		Climate change	

		Union for the Protection of New Varieties (UPOV) application for variety	
		Licensing	
Livestock and meat			
Agricultural production value is generated from livestock production (MO)	Meat industry to be less competitive than other players in the market. Its cost and productivity has been the major issues hindering its competitiveness.	Variation in the overall contribution to the WBC economy	Strengthening of export of competitive products (lamb);(MO)
Cow, sheep and goat's milk and the production of lamb with traditional breeds (MO)	Weak relationships and interactions among different actors along the supply chain, including adoption of a code of conduct.		
Export of lamb meat, wealth of domestic animals (MO)			
Animal production, pork and poultry are clearly vital to the industry in general.			
The pork industry is, in fact, the most significant			
Development of the livestock sector is supported through measures to encourage the genetic improvement of livestock through per-head payments when breeding animals of specified genetic quality are brought into the flock or herd.			
This subsidy appears to have a positive impact by encouraging adoption of new technology, the genetic quality of their stock (RS)			

Pork			
Traditional production and consumption of meat and meat products (CO)	Unfavourable farm structure (economy of value) and insufficient specialization (CO)	Appearance of diseases which can influence domestic consumption and export (CO)	Potential for the increase of competitiveness and quality improvement (CO)
Significant grain production for production of fodder concentrate (CO)	Insufficient level of compliance with environmental and hygiene standards(CO)	Insufficient level of compliance with environmental and hygiene standards (CO)	Increase of pork meat consumption (CO)
Croatian consumers are traditionally oriented to domestic products (CO)	Insufficient level of manure management and manure storage capacity (CO)	Continuous oscillations of market prices and uncertain conditions (CO)	Possibilities of processing of pig meat prepared as recognizable traditional products, which can gain higher price on domestic and international market (CO)
Improvements in cooperation between producers, processors and tradesman (CO)	Weak technology productivity (because of farm structure and breeding methods) (CO)	Quality supply at lower prices from foreign markets (CO)	Potential for the improvement of the production organization (CO)
Increase the utilization of technological potential for the production of specific traditional products (CO)	Insufficient level of cooperation between producers, processors and tradesman (CO)	Non-compliance with relevant Community standards at the date of Croatian accession to the EU (CO)	
Beef			
Unutilized capacities on family holdings for fattening of beef (CO)	Unfavourable farm structure (economy of value) and insufficient specialization(CO)	Appearance of diseases which can influence domestic consumption and export (CO)	Potential for the increase of competitiveness and quality improvement (CO)
Meat is product which can obtain high prices, which can influence total income on farm (CO)	Insufficient level of compliance with environmental and hygiene standards (CO)	Quality supply at lower prices from foreign markets	Use of unutilized grass resources (great) potential for further differentiation of products to offer a wider assortment to consumers (CO)

Significant grain production for production of fodder concentrate (CO)	Insufficient level of manure management and manure storage capacity (CO)	Non-compliance with relevant Community standards at the date of Croatian accession to the EU (CO)	Expected increase in consumption of domestic beef products (CO)
Croatia already exports calves, which achieve high prices on foreign markets	Short production cycle in intensive fattening resulting in too early slaughtering of animals at lower weights	Slow land consolidation process (CO)	
Consumers are traditionally oriented to domestic products (CO)	Insufficient number of calves for fattening (which will continue, decreased import possibilities, and use of Holstein breed in milk production which is not suitable for quality meat production) (CO)	Undeveloped agricultural land market (CO)	
Huge, unutilized area for cows (meadows and pastures) (CO)			
Poultry and eggs			
High industrialized production where high production results are achieved (CO)	Insufficient level of manure management and manure storage capacity (CO)	Egg prices decrease on the world market (CO)	Potential for the increase of competitiveness and quality improvement (CO)
Sufficient fodder quantities for the production are available (CO)	Insufficient compliance with animal welfare and rearing methods (CO)	Non–compliance to ecological conditions and conditions on animal welfare on small farms (CO)	Potential for maintenance of viable mid-sized producers in compliance with Community standards (CO)
The tradition in production and well known technology (CO)	Producers non-competitiveness on small production units (CO)	Appearance of diseases which can influence domestic consumption and export (CO)	
	Nonexistence of biosecurity equipment in production units (CO)	Non-compliance with relevant Community standards at the date of Croatian accession to the EU (CO)	

	Costly investments in animal welfare (closing down the production) (CO)		
Milk production			
Existence of well-educated and experienced middle sized dairy farmers (CO)	Insufficient level of compliance with environmental and hygiene standards (CO)	Uncertainty about the milk price on the world market (CO)	Ongoing restructuring of the sector by establishing new production units, adaptation which will increase the competitiveness of the sector (CO)
Huge, unutilized area for cows (meadows and pastures) (CO)	Insufficient level of manure management and manure storage capacity (CO)	Non-compliance with relevant Community standards at the date of Croatian accession to the EU (CO)	Existence of internationally competitive processors with EU expert licenses
Significant grain production for production of fodder concentrate (CO)	Insufficient level of extra quality milk (CO)	Due to higher yields per cow and restructuring the sector, there are less cows; slowing land consolidation process (CO)	Increased market opportunities if Community standards are met (CO)
Existence of expert support for dairy farmers	Insufficient compliance with animal welfare and rearing methods (CO)		Regionally recognized dairy products (cheese) (CO)
Consumer preference for domestic dairy products (CO)	Producers non-competitiveness on small production units (CO)		Possible increased income due to decrease in production costs. (CO)
The formal dairy market includes: Dairies that operate at or close to EU standards, including testing raw milk and full Hazard Analysis & Critical Control Points (HACCP) control of the manufacturing process (RS)	Unfavourable farm structure and insufficient specialization (CO)		Foreign direct investments in the dairy industry (CO)

Whilst most medium and large dairies now have HACCP certification, only a few test all their raw milk for hygiene; Currently less than 40 percent of the total milk supply to dairies is tested. (RS)	Insufficient use of grassing and low quality of voluminous, winter fodder (hay and silage) (CO)		Professional training for dairy producers is available (CO)
Processing on-farm into products such as cheese and cream (in Serbian – kajmak), which are then used in almost equal thirds for household consumption, direct sale, and sale through farmers markets. Farmers markets are regulated by local authorities and subject to sanitary control, though less than in formal dairies. By processing milk and then selling the products, a farmer can roughly double the income from a given quantity of milk, which can make a significant difference to the poorest families.	Low competitiveness on the open market		Readily available labour force at affordable costs (CO)
	Lack of raw milk in a quality needed by the processing sector (CO)		The milk subsidy could have been used to encourage processing and marketing of milk through hygienic
	Insufficient level of education of small sized farmers in the field of production and management)		channels by favouring deliveries to dairies over informal marketing, and favouring dairies that implement EU standards over those that do not (RS)

Meat processing industry			
Great number of traditional meat products (CO)	Primary production incapable to deliver raw material in sufficient quantity and quality demanded for the processing industry (size, quantity, technology level , quality, lack of organization) (CO)	Livestock diseases and their impact on production and the market CO)	Increase of share in the domestic market and export due to harmonization with the Community standards (CO)
Quality of products (CO)	Insufficient level of compliance with environmental, hygiene and animal waste management (CO)	No competitiveness of meat processing industry on global market (CO)	Higher value products as a chance for smaller production facilities development (CO)
Recognizable products and product origins (CO)	Weak connection between producers, processors, distributors and consumers (CO)	Huge number of small slaughterhouses who are not sufficiently prepared for international markets – high production prices and low competitiveness (CO)	Higher value products as chance for smaller production facilities development (CO)
Increased demand during the tourist season (CO)	Non-compliance with relevant Community standards at the date of Croatian accession to the EU (CO)		
Fishery			
Favourable geographic and climatic conditions for development of aquaculture	Inadequate marketing for farming products (CO)	Resistance to associations and co-operation among elderly population (CO)	Significant opportunities for environmentally-friendly production (CO)
Rich natural resources (CO)	Difficulties in finding farm locations due to poor land planning (CO)	Lack of capital (CO)	Significant opportunities for promotion in co-operation with tourism – health food (CO)
Clean environment (CO)	Unorganized market (CO)	Insufficient producer skills (CO)	Increase product quality (CO)
Well-preserved eco-system (CO)	Feed for marine fish farming exclusively from import (CO)	Unordered market (CO) slow development of required infrastructure on islands (CO)	Adding new values (CO)

High market demand (CO)	Low unit yields in freshwater aquaculture (CO)	Insufficient bank support (CO)	Sector attracts foreign investments (CO)
Long tradition and experience (CO)	Insufficient bank support (CO)	Slow development of marketing strategy (CO)	Employment of island population (CO)
Availability of competent manpower (CO)	Lack of fishing ports and disembarkation points (CO)	Insufficient co-operation among competent state bodies (CO)	Increase of domestic consumption (CO)
Availability of expert and scientific institutions for training and research (CO)	Lack of refrigerating capacities required to preserve product quality (CO)	Poor spatial planning (CO)	Increased awareness of food quality (CO)
Reputation gained on the global market (CO)	Obsolete technology in freshwater aquaculture (CO)	Non-acceptance of integral management approach for the coastal zone (CO)	Opening of new markets (CO)
Available water resources required for freshwater aquaculture (CO)	Lack of processing plants and adding new value to aquaculture products (CO)	Significant competition with other activities for space utilization (CO)	Introduction of new species to aquaculture (CO)
Availability of autochthonous	Lack of marketing strategy (CO)	High insurance risks (CO)	
species for freshwater and marine aquaculture (CO)	Insufficient product diversification (CO)	Lack of producers' associations (CO)	
	High production costs in aquaculture (CO)		
	Lack of managerial skills (CO)		
	Insufficient knowledge of sanitary standards (CO)		
	Poor co-operation, horizontal and vertical, among competent state institutions (CO)		
	Obsolete fishing fleet (CO) Insufficient awareness of environmental protection (CO)		

5.4 Swot Analysis of Fruits and Vegetables

Strengths	Weakness	Threats	Opportunities
Fruits			
Favourable pedological and climatic conditions CO)	Small agricultural farms, fragmented production (CO)	Non-compliance with relevant Community standards at the date of Croatian accession to the EU (CO)	Potential for the increase of competitiveness and quality improvement (CO)
Tradition in fruit production (CO)	Insufficient level of compliance with environmental and hygiene standards (CO)	Inadequate planting material	Potential for maintenance of viable middle sized producers in compliance with Community standards (CO)
Consumer preference for domestic fruit products (CO)	Insufficient level of cooperation between producers, processors and tradesman (CO)	Insufficient quality and sufficient quantity for export (discontinuity in production)	Possibilities for job creation and additional income from associated activities such as direct marketing and rural tourism. (CO)
Production systems are fairly intensive as a result, and the region accounts for a large proportion of high-value fruit and vegetable crops. 90% of berry fruits, which are a major export commodity, are produced in this region (RS)	Lack of producer organizations (CO)	Low first-class products	Ongoing restructuring of the sector by establishing new production units (CO)
Genetic resources and planting material. Increased use of club varieties	Lack of knowledge and training of producers in use of new and modern technological solutions (CO)	Lack of certification for integral production	High investments in fruit production

New technology orchards introduced by larger producers and corporate farms	Lack of modern handling equipment (CO)		
Production of berry fruits – raspberries, Good quality domestic apples			
Available environmental conditions for fruit production			
Full implementation of integrated fruit production			
Existence of ULO capacity			
Existence of processing facilities for processing fruits			
Low producer price of fruit			
Adequate planting material, Decent seedlings, Tradition, The existing genetic resources and their characterization			
Frozen fruit			
Over 85 percent of fresh fruits processed or frozen are sold abroad, mainly to the EU (primarily France, Germany, and Austria) and Switzerland.(RS) 43,000 tons of storage capacity (BH)	Some fresh products have a limited shelf life and often require special conditions (e.g., maintaining a certain temperature). (RS)		Functional integration of customs and border police cargo reporting under EU legislation 108 and declaring goods for bonded warehousing (known in the EU as an economic regime). When harmonizing Serbian and EU customs legislation, it is important to recognize that the EU code deals only with procedures.

Customs could usefully focus on its role as trade facilitator, and work more closely with other agencies	The Serbian Customs Administration is one of the obstacles to cross-border trade. (RS)		Significantly altered in recent years, this concept now covers: Juxtaposed facilities straddling the borderline, Co-located facilities, Advance clearance, One-stop border posts, Integrated border management, Fast track for certain traffic, Simplified processing for border area residents
Customs IT could prepare for integrated border management	High investments in fruit production in non-economically sustainable operations		
Wine			
In 2007, total area in vineyards in these regions was estimated at around 500,000 ha, i.e. less than 7% of total area in vineyards worldwide.	The WBCs are historical but very small players in the global wine arena	Huge number of small producers who are not sufficiently prepared for international markets – high production prices and low competitiveness (CO)	Strengthening of export of competitive products (wine) (MO)
The number of grape growers involved in grape production in the WBCs is rather high. In Macedonia, 25,000 growers cultivate 25,044 ha of vineyards (2005) and in Albania 20,000 growers cultivate 6,000 ha.	Only 45 companies are involved in wine production and sales in Macedonia and fewer than 20 companies produce and sell wine in Albania or Serbia (in the Macedonia, the Tikves winery has more than 30% of the market share)	Non-compliance with relevant Community standards at the date of Croatian accession to the EU (CO)	Additional sales opportunities through rural tourism and wine roads (CO)
Wine production contributes a significant share to the GDP generated by agriculture among the WBCs	Small agricultural farms, fragmented production, technologically under equipped (CO)	Lower level of quality due to outdated processing equipment (CO)	High sales opportunities because of well-established local markets and tourism related consumption (Adriatic coast) (CO)

Import export product (MO)	Lack of market infrastructure (CO)	Market pressure due to import products (CO)	Potential for the increase of competitiveness and quality improvement (CO)
Dynamic private sector aiming at quality high added value products (e.g. wine) investing in R&D (oenologists for France, Italy) (MC)	Lack of producer organizations (CO)	Most of the WBCs are facing difficulties in regulating local nurseries. Investment in vineyards where rootstocks and grape varieties of local origin are being planted is risky.	Potential for maintenance of viable middle sized producers in compliance with Community standards (CO)
Strong local market and tourism-related consumption (CO)	High market prices of domestic wine due to high production costs (CO)	To reduce this risk, the use of rootstocks and grapevine varieties imported from reliable sources (with a certificate of origin and virus-free analysis) is preferable, although more costly.	Potential for the decrease of production costs trough modernization of wineries (CO)
Rich offer of autochthonous assortment of wines (CO)	Insufficient level of cooperation between producers, processors and tradesman (CO)	Financial support in addition to that provided by government authorities is lucking from local banks and depends on the capacity of borrowers to provide collateral, which in most cases is difficult. buildings or equipment are to be used to secure loans	Increase of quality due to implementation of new technology (CO)

Experience and tradition in the production of grapes and wine (CO)	Insufficient level of compliance with environmental and hygiene standards (CO)	The WBCs are under the influence of continental weather dominated by strong variations from one year to another the WBCs has not developed a significant domestic industry for the manufacture of machinery specifically for viticulture and winemaking.	Creating the quality standards according to the EU legislation (ISO, HACCP) (CO)
High level of knowledge on modern equipment and technology (CO)	The separation of grape production of vineyards and wine processing of wineries during privatization has further complicated the financing of the wine sector	Most of the equipment has to be imported, primarily from Italy, Germany and Bulgaria which makes it difficult for winemakers in the WBCs to receive adequate training in the use of modern equipment	The compatibility of indigenous varieties with specific micro zone soils and climatic conditions constitutes a unique inheritance for the WBCs a fact that could distinguish their wines in the international wine arena.
Certain number of quality wine producers (CO)	Privatization of the wine sector and land fragmentation	The unbalanced structure of the wine sector in the WBCs could lead to major social issues resulting from disagreements between grape growers and winery owners over quantities purchased, prices paid, quality required	Some of these varieties have the potential, with modern vine cultivation and winemaking techniques, to compete on the international wine market.

Local authorities are encouraging the planting of new vineyards by providing subsidies for that purpose (Macedonia decided to provide financial assistance for the planting of up to 1,800 ha of new vineyards for a total budget of MKD 153 million (around EUR 2.5 million).	When land was privatized in the WBCs, large plots of vineyard were divided among numerous farmers, resulting in small privately-owned vineyards (of 0.5 ha per farmer in the Macedonia).		Wine companies tend to accelerate purchases of vineyards to produce their grapes to gain their independence geographical origin
	Small vineyards are an impediment to mechanization and tend to encourage wine production for home consumption.		
	Due to improved market conditions, wineries have been heavily engaged in buying vineyards to produce their own grapes.		
	The strategy behind these acquisitions is to gain greater control over the quality of the grapes produced but also to reduce the dependency of wineries on outside purchasing of grapes.		
	The downside is increased fixed costs and difficulties in adjusting production to fluctuations in the final product		

Vegetables			
commercially significant, (tradition and favourable conditions) (MO)	Insufficient level of compliance with environmental and hygiene standards (CO)	Market pressure due to imported products (CO)	Strengthening of export of competitive products (vegetables) (MO)
Tradition in vegetable production (CO)	Small agricultural farms, fragmented production (CO)	Lower level of quality due to outdated handling equipment (CO)	Potential for increasing the yields and decreasing the production costs (CO)
Competitive production of tomatoes in Istria (CO)	Insufficient level of cooperation between producers, processors and tradesman (CO)	Distrust of organizing systems (co-operatives) - historical heritage among significant number of producers (CO)	Potential for increase production in protected areas (CO)
Consumer preference for domestic vegetable products (CO)	Lack of producer organizations (CO)	Non-compliance with relevant Community standards at the date of Croatian accession to the EU (CO)	Potential for prolongation of production season of open space production in Dalmatia by new technologies. (CO)
Large number of sorts and varieties of vegetables in production (CO)	Lack of knowledge and training of producers in the use of new and modern technological solutions (CO)	Imports of vegetables from the region without checking the origin and quality	Great market potential for domestically grown vegetables of high quality (CO)
Mediterranean climate conditions that allow a quasi-continuous production over the year and increase the production cycles	Lack of modern handling equipment (CO)	Unfair competition (greater incentives for production and export incentives)	Bigger market due to EU accession (CO)
Increased area under greenhouses	Limited and seasonal supply (CO)	Less stimulating agents in the country in relation to the environment	Possibilities for job creation and additional income from associated activities such as direct marketing and rural tourism (CO)
Diversified production structure at the farm level	Lack of market infrastructure (CO)	Set of loan funds	A growing trend in the demand for vegetables

Known customers, Cash sale, Expertise, Experience in production	Equipment (partial), Possession of land	Lack of the irrigation systems, sorting and storage facilities and cold – storage plants for fresh (CO)	Organic vegetable production
Available own labour (family)	Insufficient knowledge about the production	Expensive raw materials	Integrated vegetable production
Wide product range, Relatively easy modification of structure of production	Poor quality seeds, Expensive seedlings, Uncertain sales	Absence of protective mechanisms in the form of guaranteed prices, etc.	Higher degree of processing
Continuity of production throughout the year	Weak payments (long periods)	Unorganized purchase	Possibility of using advice from advisory services, institutes, universities and others
Possibility of producing two cultures during the same year	Lack of packaging, Limited production space (greenhouses)	Natural disasters (ice, flooding, drought)	Low labour force increased opportunities for irrigation, Replace the manual with machine work
Good quality product, Good image,	Small amount and discontinuity of supply	Low purchasing power of consumers	Finding new export markets (Russian Federation)
Close to major consumer centers	Lack of seasonal work power, Expensive labour, Fragmentation of land holdings	Large fluctuations in prices	Additional support for export by the state, More substantial and better control of imports of vegetables
Good credit funds (Internal Ratings-Based (IRB))	Poor soil structure	High costs of distribution (of the market fees)	Standardization of production
Introduction of new technologies in production and processing of vegetables	Lack of knowledge	Higher prices of imported vegetables	Pre-accession Assistance to Agriculture and Rural, Development funds
Favourable climatic conditions	Obsolete equipment (primarily agricultural machinery), Poor road and other infrastructure	Non-consistent national agricultural policy	Achieving the status of products with protected
Contracting production with processors	Not having and difficulty in meeting standards (HACCP, Global GAP)	High standards of the EU	

Increased interest of young people for vegetable production	Lack of financial resources, No plans, Lack of information on market trends.		
Branding of products (producers)			
Formation of clusters of producers of vegetables			
Vegetables import substitution			
Grains and oil crops			
Very good fertility of agricultural soils (CO)	Small agricultural farms, fragmented production, technologically under equipped mechanization, equipment, grain storages, drying facilities) (CO)	Land abandonment (CO)	Potential for the increase of competitiveness and quality improvement (CO)
Farmers experience in the crop production (CO)	Insufficient level of compliance with environmental and hygiene standards (CO)	Slow demining of mined agricultural areas (CO)	Potential for maintenance of viable middle sized producers in compliance with Community standard (CO)
Natural conditions and agro – ecology capacities (CO)	Insufficient level of cooperation between producers, processors and tradesman (CO)	Huge number of small producers who are not sufficiently prepared for international markets – high production prices and low competitiveness (CO)	Potential for the decrease of production costs through modernization of production (CO)
Complementarity with the livestock production (CO)	Lack of specialized production (CO)	Market pressure due to import products (CO)	Increasing demand for oil crop production due to the growing market for bio diesel (CO)
Available quality seeds for cereals (CO)	Insufficient level of education of small sized farmers in the field of production and management (CO)	Non-compliance with relevant Community standards at the accession to the EU	Potential for the improvement of the production organization (CO)

Olive			
Good territorial deployment of oil refineries (CO)	Small agricultural farms, fragmented production, technologically under equipped mechanization, equipment) (CO)	Accumulation of olive reserves (CO)	Potential for the increase of competitiveness and quality improvement (CO)
Tradition in production of olives and olive oil (CO)	Insufficient level of compliance with environmental and hygiene standards (CO)	Market pressure due to import products (CO)	Well-developed national / international markets for olive oil (CO)
Typical indigenous olive varieties (CO)	Insufficient level of cooperation between producers, processors and tradesman (CO)	Huge number of small producers who are not sufficiently prepared for international markets – high production prices and low competitiveness (CO)	Economically significant potential in agricultural production (CO)
High quality of olive oil (CO)	Insufficient level of education of small sized farmers in the field of production and management (CO)	Non-compliance with relevant Community standards.	High sale potential (CO)
	Register of olives does not exist (CO)	Strong competition in national/international markets (CO)	Potential for the improvement of the production organization (CO)
	Stem material in-breeding grounds is not sufficient (CO)	Insufficient monitoring and control of the products on the market (CO	Potential for the decrease of production costs through modernization of olive mils (CO)
	Olive farmers and producers insufficiently educated (CO)	GIS does not exist (CO)	Potential for maintenance of viable middle sized producers in compliance with Community standards(CO)
	Number of out dated oil refiners (CO)		
	Non-adequately equipped laboratories (CO)		

	Lack of packaging facilities (CO), Low yields and utilization level in olive production (CO)		
	High unit production costs (CO)		
	Lack of technological disciplines (CO), Lack of producer organizations (CO)		
Fruit and vegetables processing industry			
Different agro-climatic zones allowing high fruit and vegetable crop variety and longer harvest periods	Lack of raw material as a result of insufficient logistics (sorting, packaging facilities) (CO)	Non-compliance with relevant Community standards at the date of	Highly attractive sector for FDI (CO)
Sufficient water resources for fruit and vegetable production	High recurrence of hazards such as frost and other natural disasters (flood, drought, hail)	Croatian accession to the EU (CO)	Potential for the increase of competitiveness and quality improvement (CO)
High altitude fruits crops that ease crop protection and IPM implementation	Shortage of land in comparison with the number of agriculture	Lower level of quality due to outdated processing equipment (CO)	Potential for maintenance of viable middle sized producers in compliance with Community standards (CO)
Availability of extensive forest and non-cultivated areas rich in wild fruits and aromatic and medical herbs	Households	Market pressures due to imported products (CO)	Ongoing restructuring of the sector by establishing new production units (CO)
Genetic resources and planting material	Genetic resources and planting material	Limited offer by domestic Certification Bodies, resulting in high certification costs, that are justified only for certain export markets (especially organic production)	Bigger market once Croatia joins the EU (CO)
Increased use of new varieties	Weak guarantee of planting material quality		Investment support by cantons (in BH) and entities

Traditional know-how including on-farm processing (spirits and jams)	Erosion of biodiversity through replacement of indigenous varieties by high-yield imported varieties		Donor funding resources for investment, capacity development, supply chain efficiency and institutional reforms
Number of leading producers who have good knowledge and implement good agriculture practices	Low level of certification of products, including integrated production and integrated pest management, but also Global GAP and organic		IPARD investment, capacity development, supply chain efficiency and institutional reforms
Available production technology (CO)	Low percentage of first class fruits		Modern inputs and equipment on the market
Emergence of larger fruit producers in Republika Srpska	Insufficient quality for export market		New technology orchards introduced by larger producers and corporate farms
Suitability of small producers to market needs			Knowledge of modern processing technology CO)
Storage and processing capacity			
Existence of ULO capacity			
Existence of fruit processing facilities, including for high value-added products, Existence of ULO capacity, Existence of fruit processing facilities, including for high value-added products			

5.5 SWOT Analysis of New Products, Modification Type of Products

Strengths	Weakness	Threats	Opportunities
Organic production			
10% of ha methods of organic production were applied in WBC	Providing mineral fuels and their greater usage is still not resolved	Farms cannot develop to the level of international competiveness	Marketing of products through tourist consumption, rapid return to former export markets, rapid transfer of knowledge from research and extension service to (MO)
Almost 90% of organic products from Serbia are made for export. In Serbia there are about 80 registered producers of organic food	The structure of mineral fuels does not respond to needs, and their prices surpasses the purchasing power of potential beneficiaries (RS)	Sector fails to be acknowledged at the political level as the driving force in agricultural development	The impact of fuels on agricultural yield is very high and stands at 49%. In order to raise the usage of mineral fuels and thus to increase output (quantity and quality) and, consequently, competitiveness of produced agricultural products
National Action Plan exists	The very bottom in Europe by usage of active matter of land protection by hectare of arable land, lower usage of mineral fuels seriously jeopardizes agricultural production(RS)	Politics does not sufficiently recognize organic farming in restructuring the agricultural sector in the process of EU accession	Regulation on refunding for production materials has been adopted in 2011 (the refundable sum is set at 6,000 dinars/ha). (RS)
Legal framework improving	Sector and domestic market small	Sector cannot build up international relations and cannot penetrate suit able markets	Evolution into Europe's prime suppliers of organic berries and some other fruits and products

Trained assessors in the field of organic agriculture in Accreditation Board of Serbia	International (EU) markets insufficiently exploited	Sector is marginalized by developments in other countries, offering similar range of products	Evolution into Europe's prime supplier of organic soybean products
Awareness of need for quality high in many industries	Insufficient cooperation of actors in the value chain	Actors do not respect accepted EU business systems and are excluded from major international trading	Evolution into Europe's prime supplier of organic food/feed ingredients such as starches, brans, flakes, protein cakes, gluten, hydro lysates, pectin, colors, etc.
Large areas of agricultural land not polluted and not intensively cultivated, making conversion faster and easier	Education in both general and organic agroculture insufficient	Domestic and international investments can-not be mobilized (RS)	Easier integration into EU's CAP through organic farming
Positive opinion on organic farming among academia, many farmers, and consumers	Makeup of farms (many small farms, not cooperating) inappropriate		Perspective of becoming major element in IPARD project approval process, and thus in restructuring Serbia's agriculture and rural areas in general
National Association exists	Attention/interest on institutional level limited		Growing demand for organic fruit and vegetable production, for health concerns on the domestic and regional markets, and for health and environment concerns in western Europe
Substantial interest of international donors	Sector at all levels severely underfinanced, only marginal subsidies are marked		
Road to EU accession	Financial engagement of international donors marginal		

Systematic education and training starting with BSc and MSc study in Novi Sad	Financial scheme and technical support for creating and running an accreditation body not yet clarified		
International cooperation of local academia with University of Kassel started	Certification systems still non-transparent		
Close relations already existing with organic markets in Germany, Austria, Switzerland, and The Netherlands (RS)	Data base on organic agriculture processing and marketing weak and not transparent (RS)		
Organic production of most products is plausible (MO)			
Possibility of developing into a major pillar of Serbia's agricultural GDP (RS)			
Modernization of agricultural system by organic segment as the driving force			
New sectors development			
Development of new sectors			The availability of raw materials in general, like several potato products such as frozen convenience foods based on potatoes (French fries) sold in bulk, and other processed potato products (chips crisps, snacks);

Strengthening of tourism and additional food			Small fruits such as blueberry, blackcurrant, strawberry, and raspberry are very perishable, and thus only need simple processing techniques; Individual quick frozen (IQF) form or in puree concentrates form; tomato based products: tomato puree, etc. For export; Paprika based products: paprika flake and paprika powder
Consumption			The suitability of the processors' existing equipment or with minor modifications for producing new products, Frozen vegetables sold in bulk (semi-processed), in particular red pepper, Meat products, Dairy products (mainly considering the high growth demand projection, cheese)
Development of commercial			Projections of future demand by local and export markets
Poultry production, formation of agro-food industry			
Development of ecological production			
Production of medicinal and aromatic herbs			

Macro- and micro-environmental factors affecting WBC agro-industry competitiveness and ability to earn profits are listed below highlighting opportunities or threats.

5.6 SWOT of External Macro- and Micro-Environmental Factors

External factors	Opportunities	Threats
Demographical/economical	Long term positive perspective for business opportunities in global food industry Increasing consumption Global consumer trends and food market developments make it possible for local food companies to anticipate and export.	Consolidation industry .The consolidation within the international food industry at retail and supply level makes it increasingly difficult for MSE-type companies to have a sustainable business Lack of infrastructure. A proper food industry infrastructure with a balanced presence of research institutes, public development agencies, multinational and MSE type of companies is lacking in WBC.
Knowledge/technological	Growth processed foods. The consumption of industrially (technologically) processed foods is increasing worldwide Technology based solution. Opportunities related to health, convenience, taste, sustainability, safety, costs, etc. can be addressed using food technology	Outdated technologies are still common practice in food industry and there is little technological innovation. Shortage of skilled personnel. Food industry suffers from a shortage of technological skilled and qualified personnel.
Political/legal	Support sustainable foods. Politics stimulate industry to produce more sustainable foods Support food innovation. Politics stimulate food industry to innovate	Regulate unhealthy foods. Increasing pressure from politics to regulate and promote 'unhealthy foods' Increasing legislation. Increasing European legislation for foods with health related claims
Social/cultural	Leads for innovation. Sustainable foods, health and ethnic and culture related foods offer new perspective for developing innovative foods. Open and co-innovation occur more widely practiced in food industry supporting initiatives	No 'foreign' technologies. Conservative attitude towards 'foreign' technologies slows down innovation Weakened image food. Although obesity and diabetes are only partly food related it hurts the image of the food industry and has negative impact on promotion of foods.

Competitive clusters	Single regional cluster. There are some national food clusters in Serbia and Croatia, but no other food clusters and regional food cluster related activities in the region	Healthy Aging/Food Circle. Competition of future networks (Healthy Aging/Food Circle) in the region.
Major customers	Private labels turn into A labels leaving room for innovation A labels Co-innovation suppliers. Drive innovation as they co-partner with suppliers in innovation projects.	Too much buying power of (consolidated) retail companies Short product lifecycle too short to earn profits from innovative food products

Internal environmental factors affecting WBC agro industry competitiveness and ability to take advantage of identified market opportunities are listed below highlighting strengths and weaknesses

5.7 SWOT of Market Opportunities /Internal Strengths and Weaknesses

Internal factors	Strengths	Weaknesses
Demographical/economical	Members closely located in WBC and participating in the same food infrastructure. Capital partly available, (member fees and co-financing local and national government) to finance basic organization and program. Export focused, with 40 % of sales turnover generated by exports	Shortage of skilled people Less experienced in acquiring subsidies Family aged work force
Knowledge/technological	Controlled transparency Strong application & market know-how	Few technology related developments
Organizational	Strong identity Clear proposition Innovative environment	Young network Small size Homogenous

Political/legal	Clear agenda on agro industry Strategic alliances	Association Lobbying power TU involvement
Social/cultural	Farmers/Entrepreneurs Committed companies Output focused	Limited assets Focus short term

WBC agroindustry long-term competitiveness and ability to take advantage of identified opportunities are listed below matching opportunities with strengths.

5.8 SWOT of Critical Opportunities and Strengths

Actors	Opportunities	Strengths
Demographical/economical	Increasing consumption	Members closely located
Knowledge/technological	Growth processed foods	Strong application and market know how
Political/legal	Support food innovation	Strategic alliances
Social/cultural	Open and co-innovation	Farmers /Entrepreneurs, SMEs
Competitive clusters	WBC food industry covered with clusters	Clear proposition
Major customers	Co-innovation suppliers	Short product lifecycles

5.9 SWOT of the Critical Threats and Weaknesses

Internal actors	Threats	Weaknesses
Demographical/economical	Lack of infrastructure	Shortage of skilled people
Knowledge/technological	Out dated technologies	Few technology related developments
Organizational	Competitive networks	Homogenous and small
Political/legal	Increasing legislation	Lobbying power
Social/cultural	Weakened image food	Short term business focus

6. Conclusions and Recommendations

6.1. Conclusions

From 2000-2008, all WBCs experienced *faster economic growth* than the EU, averaging an annual growth of real gross domestic product (GDP) between 2.7 and 6.1 percent. However, despite the positive performances of most economic indicators, there is still concern over unemployment, which persists on two-digit level in all WBCs. Food, beverages and tobacco are important items of household expenditure, varying from about 35% to over 50% (compared to 16% in the EU 27). Only Croatia has a GDP per capita higher or close to the level of some EU Member States.

Although *agriculture's share in the economy* has decreased since 2000, it is still relatively more important in the WBCs than in the EU, both in terms of value added and employment. Agriculture represents 9-20% of GDP of Western Balkan countries. Half the population (and most of the poor) lives in rural areas. The effects of high employment in agriculture in the Western Balkan countries depend, among other things, on the political influence of agricultural lobbies and rural population. Most WBCs have rather *high natural potential for agriculture*, with shares of

agricultural area close to or higher than in the EU (40 % of total territory). However, except Serbia and Croatia, which have large shares of arable land, in all other WBCs the proportion of permanent grasslands to total *agricultural area is more* significant, ranging from 40% in Albania to over 90% in Montenegro (compared to 30% in the EU 27). A large part of the agricultural area is not utilized for production or is not used extensively. The favourable resource structure of the Western Balkans in agriculture, is shown by the ratio of basic productive factors of land and labour results in the predominance of mechanic or bio-chemical technology, which further influences the differences concerning the level and growth of partial productivity, as well as the differences in determination of labour productivity growth.

A predominance of small, individual farms which mostly rely on their own workforce, which often consists of households, older family members and assistance from larger farms and co-existence with semi-natural and commercial farming sector. Ageing populations and increased longevity are putting pressure on pension and health systems, representing at the same time a long-term structural handicap. The Rational application of agro-technical systems to small using more semi-natural production methods. Such structures of the agrarian sector cause the unsuitable relation of the number of active farmers to the area of land (expressed in ha) which consequently leads to a low level of agricultural partial productivity - especially labour productivity. Fragmented value chains, poor logistics, inadequate infrastructure, and low skills are further characteristics of impact of the low level of agricultural competitiveness which influences the competitiveness of the whole rural sector; where agriculture represents the dominant economic activity. On the plus side, however, the transitional process within all the countries of the Western Balkans, considering all the changes in the agrarian structure, has largely improved the change of more or less the whole ownership structure, a fact also determined by the agrarian policy, especially by the policy of structural reconstruction of agriculture in the countries in transition, i.e. their readiness to base their agrarian reforms on the European agrarian model, whose last evolutional feature is associated with agricultural multifunction within the integrating policies of the agrarian and rural development.

Another problem in the agro-food sector in the Western Balkan countries is reaching EU standards, i.e. EU requirements concerning *product quality* and veterinary and python-sanitary areas. Since this is a priority in the EU integration processes, it slows

further restructuring of the agro-industry and creation of more efficient agriculture and *channels of food distribution*, through modernized production and reduced costs. The problem is particularly noticeable in cattle breeding, which will have more difficulties in conforming to EU standards, while the level of competitiveness in plant production will be determined by high transportation costs and a lack of storing capacity. On the other hand, rural regions require faster development of "non-agricultural" activities, which would enable the absorption of the excess of the labour force, which is unproductively employed in agriculture. Within this context, the development of the sector for processing farm products, as well as agricultural input industry plays a "significant" role, as these processes are accompanied by the erection of an *unfavourable infrastructural network as well as with unsuitable level of educational, research, information, technology, budgetary services*. In the last decade, there have been quite substantial changes to agricultural policy in most WBCs. In some countries, budgetary transfers to agriculture have been increasing rapidly, whilst in others they have fluctuated (Albania and Serbia). Compared to the EU, funds for supporting agriculture are still relatively low, with the exception of Croatia. A wide range of support instruments and measures are applied across the WBCs. However, market support measures have lost importance related to price and trade liberalization during transition. Border protection is still applied in all WBCs, but its effectiveness is rather limited due to free trade agreements signed in recent years (CEFTA, EU). Export subsidies are used in Serbia only. Other market support measures (market intervention, administered pricing) are less important or nonexistent. In recent years, direct producer support has been the main element of agricultural budgetary transfers and also the major factor of growth in budgetary funds, which is not in agreement with the reformed Common Agricultural Policy (CAP).

The most important field crops in WBCs, except Montenegro, are cereals, covering between 40 % and 65 % of the arable land. Oilseeds and sugar-beet are produced on a larger scale only in Croatia and Serbia, while tobacco is important in Macedonia. In Bosnia the number of livestock fluctuated from 2000-2008. Fruits and vegetables are among the leading crop sectors in all WBCs. Except in Serbia and Montenegro, livestock production has also improved. In most WBCs, beef or milk production occupy first place. The pig sector is very important in Croatia, where poultry is also among the leading sectors, as well as in Serbia and to a lesser extent Macedonia. The sheep and goat sector is also quite important in all WBCs. The increase in

agricultural production was mainly due to a rise in yields, which can be explained mostly through improvements in production technology. However, yields still lag behind the EU average in all WBCs, particularly in the livestock sector.

Agro-food products represent a significant part of *WBCs external trade*, beyond the EU. The agro-food trade has constantly risen for both exports and imports. Except for Serbia, all other WBCs are net importers of agro-food products and their trade deficits have been increasing constantly. Exports are predominantly represented by raw materials and low value-added (processed) products. The majority of agro-food exports take place with the countries in the region (WB) favouring the FTA mainly with CEFTA, followed by the EU, while in imports both destinations are represented more evenly.

The agricultural *producer prices* are rather high, mostly above the EU average, indicating weak price competitiveness for most WB products. Of all the WBCs, only Serbia, which is also the only net exporter of agricultural and food products, shows significant price competitiveness, while in other countries price competitiveness is limited to crop products such as cereals and industrial crops (Croatia), tobacco, some fruits, vegetables and wine (Macedonia, Montenegro), while among livestock products only lambs seem to be price competitive (in most WBCs). These are also the leading WBCs export products.

Rural development policy is generally subordinate to production support. Funds aimed at supporting rural development are much lower, although show an increasing tendency. These funds are mainly intended for restructuring agriculture through investment support, which have been gaining importance as preparations for the approaching accession continue. All countries have been preparing, and some (Croatia and Macedonia) have already started, to implement rural development policy according to EU rules. However, progress has been relatively slow, since rural development is a demanding policy, and also because these countries have different priorities. In this context, only a small proportion of funds are related to environment and countryside measures (the 2nd axis of rural development policy). There is some support for organic production, agricultural genetic resources, and some additional support for hilly and mountainous regions, but it is very limited given the potentials and possibilities provided by EU policy.

General awareness for the environment, less favoured areas and animal welfare issues is relatively low. This policy is not a priority, which is in a way understandable, as it is difficult to find interest and rationale for such measures in the areas facing extreme rural poverty, and where subsistence farming prevails. Even less funds are intended for the rural population (3rd axes of rural development policy). There is a certain conflict with the EU regional policy approach, which in these countries lags behind even more than rural development policy. So the most specific constraints of rural development in WBC could be considered: Low competitiveness of economic activities in rural areas (for example, agriculture, forestry, fishery, food sector, rural tourism, service industry); Underdeveloped basic municipal and basic infrastructure in rural areas; Underdeveloped access of rural population and economic subjects placed in rural areas to public institutions and goods (telecommunications, public transport, educational and information systems, healthcare); Areas damaged during the war, including high share of mined areas; Depopulation of rural areas and unfavourable age and gender structure of rural population (18,9% of population in rural areas is older than 60 – women, and 65 years – men); Low level of education of rural population; Weak activity or non–existence of regional or local institutions competent for rural development; Inadequate coordination of program and activities directed towards different economic activities in rural areas.

It can generally be concluded that progress has been achieved in the development of agriculture in the all WBCs in recent years, and as the sector *has enormous potential*: abundant land and low-cost labour, a favourable climate, and proximity to EU Market, but a great deal of work remains to be done to prepare their respective agriculture sectors for EU accession. There are needs of WBCs for: shifting from subsistence producers to commercial farms and aligning policies to access EU agriculture funds. During the process of accession of the WBCs, agriculture is one of the key issues in negotiations, due to the role the agrarian sector plays in WB countries, and more importantly, its low competitiveness and preparing for climate change.

6.2. Recommendations

This set of recommendations has to be seen as part of a general policy framework, because in the WBCs interconnectivity of institutions, organizations and policies have been low and not harmonized inside of the region or with EU policies. Such a general policy framework should be integrated both vertically (international, national and regional) and horizontally (intra and inter-sectoral) and encompass inter alia, an enabling macro-economic environment, an institutional framework and policies, decentralization and participation, agricultural, forestry and environmental policies, and rural development policies, with particular attention to improving social and cultural amenities, services and infrastructure, in order to stimulate social and cultural revitalization, and primarily to engage young people in the revitalization process. This is very important because of high and long-term unemployment rates of youth in WBC, and permanent depopulation of rural areas, as well as significant brain-drain of young educated people. A clear long-term strategy for agricultural policy reform should be to base activity of WBCs in efforts to incorporate the expected EU accession agreements and impacts, as a precondition for the efficient adjustment of agriculture of WBC. A systematic implementation of the strategies and the modernization of public services regarding agriculture are also necessary elements.

Accession to the European Union triggers substantial changes in the business environment of the WBCs food processing industry which intensifies restructuring processes and increased pressure on the business performance of the sector. It is very clear that competitiveness is the most important element in activities at different levels of the economic and policy environment. Within these, upgrading performances towards more favourable *Market access* should be accelerated. Markets (local and national) must be more efficient in the way that no unfair competition hinders production (e.g. exchange rates do not penalize domestic production); prices must cover the costs and be appropriate for all producers and consumers (e.g. interest rates are not penalizing rural areas). Without this basic condition of equitable prices, all other measures will lead to inefficient policies. The necessity to increase food safety and product quality, reduce costs and waste, build customer and stakeholder value while striving to achieve social and environmental stewardship requires all of the agro-food *value chain* (VC) business entities to act

jointly. This increases emphasis on the strategic importance of vertical integration/coordination in the agro-food business, e.g. the tightening of supplier relationships. Imported business models usually rely on VC strategy as a means of gaining competitive advantage. In order to compete successfully with foreign firms, local companies mainly resort to imitating these VC strategies. Overall, such competitive dynamics result in new forms of vertical integration/coordination.

Land reform and land policies: Land tenure policy and, in particular support to land consolidation, is an important precondition for developing a competitive agricultural sector in WBCs as it directly affects the efficiency and competitiveness of the rural sector. In many transition countries the resolution of widespread land fragmentation would give an incentive, in particular to young farmers, to invest in their holdings and to remain in rural areas. In addition, the creative management of state and publicly owned land, where such land is available, can provide a welcome opportunity to address the land tenure situation. Land ownership permits access to loans and capital in order to build the necessary infrastructure, purchase machinery and implement techniques to improve production. Agrarian reforms are necessary for agricultural and rural development, including support to land consolidation. The family-based farming model is considered to be economically efficient and capable of dealing with climatic and market risks, because farming families pursue other goals beyond the economic logic of profit, such as the safeguarding of the family heritage (e.g. land, buildings and tradition), a high motivation for the profession and a high quality of life in nature. *Property rights policy*: The protection of genetic resources, local traditional knowledge and access to natural resources (e.g. water rights, mineral resources, etc.) is an important condition for rural development. In that context, national regulations regarding geographical indications, prohibition of patents on plants or animals, and the protection of local knowledge are fundamental. Weak tradition of farm associations and cooperatives would have to be corrected by new legislation and practice.

The key to all these issues is more investment in some of the most basic market institutions—better farmer training, better statistics and market information, resolving ownership issues and freeing up land sales. Better analysis is needed to identify the comparative advantage of each country, and government support and international assistance needs to be targeted in a more coherent way to support those sectors.

Governance, decentralization and participation: Empowerment of people in rural areas should be one of the basic elements of any revitalization policy. It should include clear rules and guidelines for decentralization in decision-making as well as in financial concerns (i.e. use of taxes), participation and empowerment of local people, positive discrimination for marginal groups and institutional development to ensure good governance at local level. *Social and labour policies*: It is particularly important to maintain a balanced demographic structure for a balanced economy through targeted support for keeping young people and families in rural areas. Specific policies targeting landless agricultural and rural workers are a challenge, because increasing mechanization to become competitive obliges a large number of these landless labourers to leave the sector. These policies should aim to create remunerative, decent and stable employment opportunities in rural areas, whereby employment and education programmes are important elements. *Other social, welfare, and fiscal policies*: Public and animal health, water supply, environmental policy, etc. are of primary concern for any revitalization policy. Fiscal policy must be based on an efficient, decentralized and income-based taxation and take into account the priority needs of the country (e.g. redistribution of tax income to disadvantaged areas). *At the agricultural, forestry and environmental policies* level, direct payments for the compensation of natural constraints, for the preservation of natural resources, provision of environmental services and the production of other public goods are the main support measures. These are normally sustained by appropriate land ownership laws, support to land consolidation, measures to reinforce the family farm model, and more traditional (e.g. production subsidies, etc.) agricultural sub-sector policies, etc. In order to avoid the capture of land rent through direct payment schemes, laws on land ownership and lease have to be adapted. The European Parliament supports the view that land abandonment damages the preservation of the environment in rural areas, which are very important and have to be supported. *Sectorial agricultural and forestry measures* should concentrate on the following main issues: technical development, access to funds for investment (public and private loans) and market organization. Technical and financial support for diversification into the production of non-food products - including forestry, bio-fuels etc., or energy production - wind, water or solar energy, are useful in certain regions.

Research, extension, and agricultural advisory systems. Capacity building and training of land managers and rural communities is necessary. Research, extension

and advisory systems have to be strengthened, to address agricultural and forestry problems and associated socio-economic problems of the rural sector and to increase competitiveness of agricultural production. Research is required to reduce the negative impact of natural hazards, droughts, floods, forest fires, and poor agricultural management on land degradation and desertification, resulting in abandoned land that is often characterized by salinized, dry, sterile, and unproductive soils. Multi-disciplinary research and extension capacity is needed for the development of improved technologies and management systems for high-value food and non-food crop production, as an integral part of other agricultural and non-agricultural rural income and environmental activities. There is a need for more technical and scientific cooperation among European countries on research in these areas of regional relevance, and on the development of efficient extension strategies.

Rural development policy must embody region-specific approaches that cover all activities, are multi-sectorial, including farming and other rural activities, and are implemented in a participatory and transparent manner. The EU funds rural development under its second pillar, specifically supporting the synergies between agriculture and other activities in less favoured areas. In the programming period till 2013 the proposed rural development programme is composed of four axes, of which one is the LEADER programme as a cross-cutting and integrating element. Rural development should support diversification (off-farm activities such as agro-tourism, direct selling, etc.) and the valorization of products within and outside the region (organic food, geographical origin, etc.). Remote areas have a specific competitive advantage in these types of production, thanks to the high intrinsic value of their landscapes and human habitats (cultural heritage) and the specificity of their traditional products. Diversification of income in rural areas includes the following: Tourism – growing niche markets such as rural tourism, eco-tourism, adventure tourism, cultural tourism, green tourism, hunting, outdoor sports; Profiling of local products (branding and labeling); Housing – second homes and hobby farmers; Biotechnology – new technologies (breeds, feeds, crops, etc.) to support increased land use levels while maintaining or enhancing farm outputs; Public and private services that can be handled by the farmers themselves, who can be employed part-time for rural road and hiking track maintenance, waste treatment, postal services, school transport etc.

In order to find the right policies for revitalization, a systematic approach has to be followed and different options for revitalization of rural areas defined: preservation of biodiversity; policies that foster diversification in order to benefit from nature's potential through rural tourism; organic farming; collection of non-wood products; revitalization for recreation – preservation of quality of life and biodiversity and revitalization for economic development – develop rural areas for economic reasons and create synergies with other sectors.

For all the countries of the Western Balkans, the future lies in the EU. EU membership will bring needed investment to the region and will do much to boost farm income. But it will also bring more foreign competition and stricter quality standards. Many of the small slaughterhouses in Macedonia will likely close, and the small hog farmers will have to meet the requirements of the large buyers or cease producing for the market. A number of unique dairy products could be eliminated from the market if they don't meet the strict hygienic standards of the EU. The EU has made substantial pre-accession funds available to farmers and agribusinesses in the candidate countries that can be used to overcome these problems. The current new member states benefited from the SAPARD programme. The Western Balkans countries are eligible for the similar IPARD programme (Instrument for Pre-accession Assistance for Rural Development) Program. Under the Priority Axes, Axis I of this programme (Improving Market Efficiency and Implementation of Community Standards), producers can apply for funds to invest in restructuring and upgrading their farms to meet EU standards. During the preparation and implementation of EU and other funds it has become obvious that WBCs are facing the new challenges in its present stage of development and looking forward to future integration with an enlarged EU. Because of that there are a lot of reasons for intensive vertical integration in the Western Balkan countries, as *minimizing the risks related to*: adoption of a full complement of standards; significant variation in prices; insufficient supply; lack of orientation towards other buyers; price variations when compared with other European markets; variations in annual production; heavy dependence on weather conditions; dependence as well on tariff protection; small storage capacities; (very often) strong internal competition, improving the investment capacity of small farmers compared with high investment capacity of the companies; willingness of the state to fully establish a market and related support services suitable for small producers, and for their integration into the supply chain and work in accordance with the law and honor contractual obligations.

It would be necessary to increase the level of dialogue between agro-food SMEs, farmers and consumers throughout the WBs by: Fostering a pro-active cooperative transnational network, including all the actors of the entire food chain, creating a sustainable multi–actor cooperation of the various key topics addressing the needs of any food producer, farmer, holding, company, giving equal access to information and cross dissemination to all size producers, providing preferences and requirements of consumers and identifying training needs as well as anticipation of future trends of organic production and the green economy focused on a key topic and specially targeted producers and SMEs.

Hygiene, Health, Safety, Security and Environment (HSSE) would be fundamental to the very survival of any food company in WBC in the future; producers, processors or retailers, every operator in the food chain, food industry workers and their trade unions, supervisors and management have legal and moral responsibilities to produce safe food. The WBCs still lack adequate food safety management programmes and do not meet the national or EU requirements.

Information and Communication Technology (ICT) Availability of basic access to ICT should not be a barrier in WBC, specific food ICT with nano-sensors are included in food, with intelligent labeling allowing full traceability of products and user friendliness which responds to consumer's needs. ADSL fast communication networks.

Innovation, farm producer and manufacturers in the WB food industry need to innovate in order to survive in today's competitive EU food market. Critical success factors would be: financial means, expensive material or lab, knowledge, protection of intellectual and industrial property, knowledge of potential market, partnership and clusters, strong connections between industry and university. Strengths in this field are certainly the growing potential in consumers linking food to health and well-being. Recommendation: Food industry in WBCs to take into account of the "Triple Helix Collaboration", between society, industry, research and social partners to enable growth and sustainability in a more successful way.

Consumer needs and preferences. Toward a EU consumer environment, WBCs would have to reorganize consumer organizations, rights, programmes, authorities, like known structures such as –Greenpeace or the ATTC, with the purpose of

protection of consumer issues and continuous support. Harmonization among WBCs as well as collaboration through food networks is needed, to achieve a strong sustainable WB market and European consumer environment.

Anticipation tools. The analysis of the future of WB and EU food green economy would open some of the further focal areas of the WBCs possible interest: biotechnology and its application in food production, GMO genetically modified organisms used in a food production and future technological solutions. Recommendations: foresight activities should be integrated into other forms of business development, the corporate management and trade unions should be able to clearly identify the added value of foresight activities in comparison to already existing strategic planning systems, and promote and include these in training programmes of social partners and industrial relations with the purpose of social dialogue on sectorial and national level, in order to promote not passive viewers but actors in the sector; which is the objective of further trade unions activities. Some market trends in this sector are of high interest to WBCs and their further activities: Current market trends for high quality, fresh, organic, convenient foods might favour more farmers, holdings and SMEs due to proximity markets. Globalization of business and a growing need for faster communication that imposes new technologies and transnational cooperation inside of WBC and EU; the increasing proportion of food eaten outside the home and consumers interest for functional food entails fresh challenges to apply new techniques and marketing solutions, Increased political interest and support of WBCs in renewing the food manufacturing industry and bringing it closer to the market can lead to incentives for innovation in agricultural and rural policy

Producers and Trade Unions from WBCs might be expected to have better knowledge of local consumers, EU, and third markets and therefore respond better to their preferences. Regional Food Security and Risk Management Programme, as a capacity building, skills transfer, technical studies, documentation of best practices, information sharing, policy dialogue, TU social dialogue and new industrial policy development in WBC have to be prioritized in Trade Unions future agendas. Also further topics to be included are as follows:

Making Markets Work for the Poor: Enhancing Food Security and Productivity Growth in WBCs involving practical analysis, policy outreach, consensus building,

and capacity strengthening to promote the goals of national and regional food security, poverty reduction, and agricultural productivity growth,

Bankable Projects joint development, as incentives for private sector investment and consolidate public investment in a more cohesive, coordinated and coherent manner.

Regional Value Chain Promotion, is critical among the implementation strategies as is the establishment and support for Regional Value Chain Champion Institution which could promote and develop regional commodity value chains, resolve cross-cutting issues using successful models and inclusive market development tools. The value chain champions are likely to mobilize key non-state actors to invest in national and regional value chains in a more coherent and coordinated manner.

These actions on the WBCs level could develop a vision of "a modern and sustainable agriculture, based on the effectiveness and efficiency of family farms and the promotion of agricultural enterprises through the involvement of the private sector", designed to achieve significant results in the short whilst in the long term focusing on the development of different value chains (food, peri-urban agriculture, export crops, short-cycle breeding, agro-forestry products, non-industrial fishing and aquaculture with an new Agro-dealers regional network establishment), the development of product processing, the strengthening of support services provided to operators and the promotion of national, regional and international trade. *Improving the capabilities and the role of local and regional producers*, who form the largest component of the agro-food value chain of WBCs. They can constitute over 80% of the actors within the agro-food value chains. Producers invest in land and provide labour and resources to generate the needed raw materials for processors and supermarkets. Regional farmers' federations with many farmers could see an interest to join such and organization and would be welcomed, with the aim of facilitating the transfer of production technologies, advocating for sound government policies and help provide the critical mass of produce for processors and supermarkets. Farmers could be helped by the support and lobbying of Trade union organizations from WBCs together with Employers organizations, representing Agro-food Processing Companies, which play the most critical role in the agro-food value chain. They are the link between producers and supermarkets playing both upstream and downstream value chain

activities. They include producers of agro machinery, electricity, water supply, estate, warehouses and transport systems.

To be more successful in developing a higher level of business and TU cooperation among Balkan countries it would be important to work on the creation of free trade zones and further regional integration aspects creation as: joint ventures in food production; joint activities and business climate improvement in favour of foreign direct investments attraction; joint access to third markets; joint work in research projects; and increasing factors of higher competitiveness in agriculture. Higher interest Trade Unions should demonstrate also in active approach in the formulation and implementation of measures for agriculture exports of WBCs to be more connected to the: improvement of agricultural production growth; stabilization of primary agricultural production; changes in production structure; input subsidies in production; sustainability and improvement of quality of export products; implementation of the segmentation of foreign markets; formation of recognizable brand of export products; better organization of foreign trade networks; development of specific forms of distribution; following of terms of trade; export stimulation; timely harmonization of domestic with foreign standards; health security and food safety standard implementation; and a better marketing export approach. *Institutional reforms* should be focused not only on the strengthening of the existing institutions, but also on the establishment of new institutions necessary for the establishment of a functional market economy. Strong, effective institutions should be a pre-condition for tackling corruption, which severely undermines regional business operations, and should continue to be of demonstrative interest to Trade Unions.

Structural reforms should be focused on the better privatization and restructuring of domestic enterprises from the agro industry sector, with the aim of increasing competitiveness and making the economy more export oriented, as well as on new opportunities for jobs for workers, and their social programs, which should be developed under the attention of Trade Unions of WBCs.

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