

Agriculture and Food Industry in South Eastern Europe

“Chances and Challenges of Investments and Co- operation along the Value Chain”

Summary



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About the Author

The Regional Rural Development Standing Working Group for South Eastern Europe (SWG RRD) is an international intergovernmental organization, consisting of members from governmental institutions in South Eastern Europe (SEE) responsible for agriculture and rural development in respective member countries and territories. The SWG RRD vision is to promote innovative and sustainable agriculture and rural development through regional cooperation, in order to improve rural livelihoods in the SEE countries. The general objective of the SWG RRD is to facilitate close cooperation among the ministries of agriculture and other stakeholders in the field of agriculture and rural development and to support the process of EU integration. The SWG RRD is responsible for the development of the methodology and the conducting of the survey/profiling in the selected agricultural sectors from the four SEE countries.

About the publisher

The Committee on Eastern European Economic Relations (Ost-Ausschuss der Deutschen Wirtschaft - OA), founded in 1952, is the oldest regional initiative of German economy. It represents the interests of German enterprises and associations in 21 countries in Eastern Europe, South Eastern Europe and Central Asia. One of the key supporting institutions is the Federation of German Industries (BDI) which represents 100,000 companies in Germany with more than eight million employees.

The Committee on Eastern European Economic Relations is actively involved in more than 100 events annually. In cooperation with the Federal Government and as a key actor in the field of business diplomacy it organizes discussion for and between the Central and Eastern European Government members and German companies and represents German business interests in bilateral committees. Moreover, the Committee on Eastern European Economic Relations organizes expert meetings, delegation visits, SME conferences, Parliamentary Evenings and receptions and takes part in international trade fairs.

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List of abbreviations

CAP	Common Agriculture Policy
CEFTA	Central European Free Trade Association
EFTA	European Free Trade Association
EU	European Union
EU 15	European Union of 15 Member States
EU 25	European Union of 25 Member States (without Bulgaria and Romania)
EU 27	European Union of 27 Member States
EUR	Euro, European Currency
FDI	Foreign Direct Investments
GVA	Gross Value Added
HAMAG	Croatian Agency for SME
HBOR	Croatian Bank for Reconstruction and Development
IPA	Instrument for Pre-Accession Assistance
IPARD	Instrument for Pre-Accession Assistance for Rural Development
MAP	Macedonian Association of Processors
MFN	Most Favored Nation
MKD	Macedonian Denar (national currency)
OA	Committee on Eastern European Economic Relations, Ost-Ausschuss der Deutschen Wirtschaft
PDO	Protected Designation of Origin
PGI	Protected Geographical Indication
QAS	Quality Assurance Standards
SAA	Stabilization and Association Agreement
SEE	South Eastern Europe
SME	Small and Medium Enterprise
SWG RRD	Regional Rural Development Standing Working Group
WTO	World Trade Organization

Background

The Regional Rural Development Standing Working Group (SWG RRD) in South Eastern Europe (SEE) established a co-operation with the Committee on Eastern European Economic Relations (OA) through the Business Network Project of SEE. Within the Framework of the Open Regional Fund of the German Association for International Co-operation (GIZ) the OA and SWG RRD conducted a performance survey on competitiveness and investment possibilities in the agriculture branches (sub-sectors) of four SEE countries. The results from the survey of the identified agricultural branches should be presented and used at fairs, delegation trips and other events to show detailed facts and figures.

The OA aims at using the results to set up follow-up activities and measures commonly developed and implemented by SWG RRD and OA. On this basis, both institutions aim at intensifying the modernization partnership as well as cooperation between Germany and the countries of SEE and its relevant agricultural stakeholders such as companies, associations and ministries.

The results of the survey/profiling present the most productive and competitive sectors in the field of agriculture, and refer to the following:

- Produced and/or manufactured products
- Quantity and quality of those products
- Quantity and quality of cooling chain, proceeding chain
- Quantity and quality of logistics for exports and other transport capabilities

Economic and agricultural background

Positive performances of most economic indicators in all of the targeted countries (Macedonia, Serbia, Croatia and Albania) show signs of economic progress. In the last decade all surveyed countries experienced faster economic growth than the EU, averaging an annual GDP growth of between 2.7 and 6.1% (compared to 2% in the EU 27).

Croatia has a GDP per capita even higher or close to the level of some of the new EU Member States.

Agriculture's share in the economy is decreasing both due to increases in other industry sectors and globalization trends¹. However, it still has major implications for the profiled countries' exports, value added, rural development and employment.

The share of agriculture in gross value added (GVA) and employment is high in Albania, Serbia and Macedonia.

All profiled countries have a high level of natural potential for agriculture, with shares of agricultural area close to or higher than various EU Member States. However, in many instances the potential is underused both in terms of technology applied and value added.

A significant portion of the territory of all profiled countries qualifies as less favorite areas, which are mitigated with the production of high value crops and labor intensive agriculture.

Although ageing and depopulation may impact the future production, the large share of rural population and the rural development measures and investments in infrastructure will limit the negative effects. In addition, the relatively small sizes of all surveyed countries favors inclusion of the urban population in agriculture for additional income.

The small-scale and fragmented nature of farming remains a general characteristic in all of the countries and a structural handicap. However, in conjugation with controlled depopulation it can account for a satisfactory level of productivity.

The increase in agricultural production is mainly due to a rise in yields over the last decade. However, the emerging more professionalized farmers with increased access to resources, investment capital and support for modernization, will account for development in the agricultural sector.

The population of the profiled countries tends to share a traditionally deeper connection with the rural environment and agricultural production. It is the author's firm belief that the increasing availability of funds for agricultural investments will be followed by development and an increase in output.

Comparisons of the subsectors with those of the members of the EU have been limited in the profiling, as they should be observed through the prism of state support provided both in terms of duration and value. Therefore, with the introduction of the new Common Agricultural Policy (CAP), the author believes that the opportunities for progress will emerge.

With the abandonment of centralized planning, all of the countries are moving away from raw material production and exports, and towards value adding and niche markets. Governmental policies in most of the profiled countries support such developments.

¹ Rural migration, rural aging, increased job opportunities in cities and abroad, climate change, travel liberalization etc.

Compared to the EU, budget support for agriculture is still low, with the exception of Croatia. Border protection is applied with limited effectiveness due to free trade agreements with the CEFTA countries (Albania, Bosnia and Herzegovina, Serbia, Macedonia, Moldova, Montenegro, Croatia and Kosovo*) and the EU. Export subsidies are used in Serbia only. Croatia and Macedonia use direct payment schemes according to the EU rules. Rural development support is mainly intended for restructuring and modernizing agriculture through investment. The limited progress towards the adjustment of the state support to the EU norms is often cited as being responsible for the slow development of agriculture. However, experience shows that agricultural development is not proportional to the level of EU approximation in the new Member States. Contrastingly, agricultural production continues to decline after joining.

Data

The data used in the country reports are derived from various sources such as national statistics, state administration bodies, official publications and websites of the relevant institutions as well as interviews with various stakeholders in each sub-sector. The most recent data available (gathered, published etc.) was used in the preparation of the document. If not indicated differently, the data refers to 2010. The aim was to obtain information which was as coherent as possible. The information available in official publications was cross-referenced through interviews in order to obtain firsthand feedback on recent trends and developments, the sustainability, the expected future dynamics as well as the effects of the support policies and the provided state aid (where applicable).

MACEDONIA

General economic situation

Macedonia is located in the central Balkans. The country covers an area of 25,713 km². Its terrain is mostly mountainous, traversed by the Vardar River.

After establishing independence, the Macedonian economy achieved macroeconomic stability in 2000. Positive performances of most economic indicators are signaling economic progress. In the last decade the country experienced faster economic growth than the EU, with growth levels of over 3% and an average annual inflation rate below 3%. The €/ MKD exchange rate has been almost unchanged over the last decade.

The growth has so far not benefited the official unemployment rate that remains above 30% (although actual unemployment is lower due to the informal economy).

Foreign Direct Investments (FDI) have been steadily growing in the last decade. FDIs in the agro and food sector were made in a number of companies from the region. Investments are usually smaller than € 1 million.

In December 2005, the European Council awarded Macedonia its official recognition as an EU candidate state.

Agriculture

Macedonia has a high natural potential for agriculture, in many instances the potential is underused, both in terms of the technology being applied and the value added. However, it has major implications for exports, value added rural development and employment. Agriculture is the third most important economic sector with a share in the overall GDP at around 9.7% for primary production. If agro-processing is included, the percentage increases to 16%. The sector is growing by over 10% per year.

Agriculture is an important contributor to foreign trade. The relative share of agro-food exports in the total trade averages 16.9%, whereas the relative share of imports is 12.9%. In 2012, the unweighted average customs rate under the most favored nation treatment for agricultural products was 16.61%, whereas the unweighted average customs rate for industrial products was 6.2%.

Approximately 43.6% of the territory is agricultural land out of which 45.4% is arable land. A significant portion of the territory qualifies as less favorite areas, which are mitigated with the production of high value crops and labor intensive agriculture.

About 20% of the land is owned by the state which was leased to some 297 legal entities. Agricultural land under state ownership cannot be sold. However, it may be leased.

Rainfall varies from 400 mm in the center and east to 1,400 mm in the west of the country. Out of the total arable agricultural area 123,864 ha are irrigable through 144 irrigation systems.

- Membership of the WTO since 2003
- Member of CEFTA
- Free Trade Agreement with Turkey and Ukraine
- Free Trade Agreement with the EU
- Stabilization and Association Agreement with EU giving duty-free access to EU markets

The small-scale and fragmented nature of farming remains a general characteristic, while the increase in agricultural production is mainly due to a rise in yields over the last decade.

The population tends to have a traditionally deep connection with the rural environment and agricultural production. The sector provides income and employment to approximately 435,500 residents. Around 80% of them are part of some 192,378 farms (1.47 ha on average). An additional 20,000 part-time farmers and significant seasonal employees (particularly in the fruit and vegetable sector) work in the sector.

The agricultural sector has always regionally and locally been viewed as a supplier of raw materials. With the abandonment of centralized planning, agriculture in the country is striving to move away from raw material production and exports, and towards value adding and niche markets. Government policies in most of the profiled countries support such developments.

The financial industry in Macedonia is relatively well developed and offers specialized products for different agricultural activities.

Macedonia uses direct payment schemes according to EU rules. Rural development support is mainly intended for restructuring and modernizing agriculture through investment.

The government has been providing support from the national budget in the last few years (approximately 100 million €/year in 2010 and 2011). 90% was spent for direct payments policies and 10% on co-financing the investments, accounting for some 3% of the national budget. In addition, producers can apply for the pre-accession EU support for rural development IPARD.

The government is subsidizing the insurance of crops for primary agricultural producers with 60% of the insurance cost.

To encourage the implementation of safety and quality assurance standards as well as organic production in agricultural production and processing, the government is subsidizing the costs for the certification and implementation of standards and quality control for farmers and processors.

Service providers (implementers and certifiers) for quality assurance standards are readily available

Macedonia offers one of the lowest tax regimes in Europe and numerous benefits to investors.

Tax	Tax Rate
Corporate Income Tax	10%
Corporate tax on retained earnings	0%
Personal Income Tax	10%
Value Added Tax	18% general tax rate 5% preferential tax rate
Property Taxes	
Property Tax	0.1% - 0.2%
Inheritance and Gift Tax	2 - 3% or 4 - 5%
Sales Tax on Real Estate and Rights	2 - 4%

Wine grape and wine sub-sector

Wine grapes constitute the basis upon which the wine industry is built on and are a source for raw materials for the wine industries of neighboring countries.

The total area under vineyard production is 20,700 ha (5% of the arable land). The average annual production is about 265,500 tons of grapes, with an increasing trend. This development is a result of the support provided by the government, accounting for some 1,000 – 2,000 ha per year or an increase of the grape production by 7 - 11% per year. Average yields are 9.7 t/ha, reaching up to 20 t/ha.

28% of the grapes are sold fresh, including: 17,000 tons of table grapes and 14,500 tons of wine grapes. Climatic conditions are more suitable for red grape varieties, although white varieties are cultivated on more than 50% of the total land area. Macedonia possesses excellent terroir; its combination of soil, climate, sunlight, water and topography is optimal for growing grapes. The country enjoys 220 days of sunshine a year. The temperatures contribute to a characteristic richness of color, flavor and alcohol. The cold winters offer a good recovery time for the vines.

The most common colored wine varieties with a long tradition are Vranec (50%) and Kratosija, and the most common white varieties are Smederevka (60%) and Zilavka. The price of red wine grapes is on average €140 - 200/ton while the white wine grapes cost an average of €100 - 120/ton.

The ample supply of raw materials is produced by thousands of small farmers. Several large companies dominate (up to 1.000 ha.) among the producers. Investment potential in new vineyards is limited due to the fragmentation of land. Investments are feasible mainly on government-owned land as foreign investors can apply for concession of agricultural land.

The large grape producers could be of interest to investors (buying, partnerships connected to investments in modernization of the production or adding value to the raw material through processing).

The average markup for wine grapes is some 30% (4 - 5 MKD/kg € 0.08 - 0.09), while the subsidies account for an additional 40% (5 - 6 MKD/kg € 0.9 - 0.1) to the average farm gate price (12 MKD/kg, € 0.2 in 2010). Planting of new vineyards on 1 ha costs some € 7,000 - € 7,500.

The primary sector was designed for a much larger market and therefore the production is able to meet increased demands by the processors. Growth possibilities are evaluated at up to 10% in midterm. Macedonia does not have significant competitors for the production of raw materials from neighboring countries.

Macedonia offers an ample supply of relatively cheap labor for both grape and wine production. The average monthly gross wage is approximately € 346. Seasonal wages are between (€ 6 and € 15/day) depending on the type of operation (pruning, harvesting, loading etc.). No notable lack of workers is evident.

Macedonia has a rich wine tradition and accounted for two thirds of the total wine production in the former Yugoslavia. Wine is nowadays exported both to the EU and the surrounding region. Investments in the last decade have resulted in added value, improved quality, increased quantity and exports.

The combined grape and wine production contributes 17 - 20% to the agricultural GDP. Macedonian wines are known on the regional market, although a significant quantity is exported to Germany for blending as bulk.

The total production of wine is some 900,000 hl in 86 registered wineries. The installed capacity of the wine cellars is 2.16 million hl or more than twice the annual wine production. The installed bottling capacity of 650,000 hl remains partly used. The total wine export value ranges from €38.3 to 43.5 million. The value share of bottled wine ranges from 28 to 36%.

With the signature of the Stabilization and Association Agreement (SAA), a duty-free quota of wine export to the EU (consisting of 399,000 hl) was granted. The duty free quota was used with 81%, whereupon the wine in bulk quota was used with 93% and the quota for the export of wine in bottles was used with 22%. The most important export market is Germany, where the wine is blended and sold in tetra packs at prices ranging from € 0.84 to 1.15/l. The bottled wines are exported at a price ranging from € 1.35 to 1.56/l. The bottled wines at the regional markets fetch higher prices compared to bottled wine exported to EU markets. The second most important destination is the CEFTA countries, out of which Serbia participates with 27% in the total export and Croatia with some 13% of the wine exports.

Wine in Macedonia is produced according to the Wine Law and some wines are registered with PDO/PGI, complying with the relevant regulations of the EU. A strategy for the sub-sector has been developed.

The investment potential in the wine industry is significant, however it is feasible only for investors with linkages and experience with market outlets.

Most of the local companies have a chronic lack of turnover capital and weak market outlets. The major strategic challenge for the wine cluster is the substitution of exports in bulk with exports of bottled wines.

The difference in price between bulk and bottled is more than three times, which suggests that there is an opportunity for significant improvement in income generation, if significant quantities of bulk are shifted to bottled wine. Regional exports are almost as high as the EU exports, however they are higher in value per unit sold. Exports to non-EU countries such as the US, Russia and Ukraine are also increasing.

The investment costs for small size wineries (400,000 l on 300 m²) is estimated to be € 0.6 - 0.7 /l of installed capacity. Whereas € 400/m² (€ 0.3/l) are the costs for construction of the facilities and € 0.37/l are the cost for the processing equipment.

Investment opportunities are available as joint ventures, provided that investors with experience and knowledge of the market (preferences and outlets) are interested.

The government is supporting the establishment of new, and the improvement of, the existing wineries.

The sub-sector suffers from a lack of turnover capital. The crediting of the end buyers for wine (up to one year) is translated into long delays of payments to producers, further eroding the trust and vertical integration. The lack of qualified enologists is viewed as a constraint for the sector. The lack of promotion on international level is also evident.

Government support is channeled as market incentives, aimed at keeping value added in the country and at easing capital constraints.

Solutions for the identified constraints and limitations

The table below lists the compounded constraints and limitations and ways to address them identified through the interviews. No long term or unsolvable issues were identified.

Constraints	Why does this prohibit exports?	How can this problem be solved?
No long term export marketing plans for wine	Incidental support for SMEs, insufficient for positioning at the market	Develop a strategic export marketing program for wine at national level
Value of quality wine is underestimated in the market	Good wine has low price in the EU No incentive for export when compared with domestic prices The government stimulates small producers growing grapes for cheap wine production	Marketing and promotion and venturing into niche markets for high quality wine in EU Participation in wine contests for positioning of Macedonian wines Consistent promotion and building brand image
No coordinated promotional activities, low visibility and brand image	Most SMEs are too small for effective promotion and individual marketing	Study tours / exposure to markets Support with promotion materials and information for customers
Lack of contacts with wine distributors and importers/wine houses for high quality wine	No distributors and contacts = no business	Participation at international fairs Matchmaking meetings with EU and regional partners Support in trial shipment/follow-ups
Lack of improved wine technology	Local experienced enologists creating good wine of consistent quality are scarce No turn-key / comprehensive technology packages	Training by enologists and consultancy services Study tours to well organized EU wine institutes and wineries

Processed vegetables sub-sector

The Macedonian vegetable processing industry has been in continuous growth, increasing the diversification of products and the available quantity and quality.

Vegetable production is export-oriented and includes the export of fresh vegetables and vegetable products (preserved or processed). The production of vegetable crops is carried out as early vegetable production in protected areas and open field production is mostly intended for the processing industry.

Approximately 28,000 individual farming households cultivate 97% of the vegetables on 9% of the total agricultural land.

In 2010 the processing industry purchased approximately 10% of the total production (751.615 tons) of vegetables. The processing industry absorbs a number of primary products, with pepper being the main commodity. Several types of peppers are produced destined for processing, while a smaller part is sold for fresh consumption. By far the most important variety is the red industrial pepper representing nearly 50% of the total raw material processed by the industry (>34,500 tons).

The total production area has been increasing over the last ten years. Pepper is produced on some 8,474 ha (20% of the open field production). The total output was 168,150 tons in 2010 and the average yield per hectare on a national level was 19,843 kg/ha.

The producers are experienced and have demonstrated that they can quickly and significantly increase output. The government provides direct support and incentives for the modernization of the primary production. The direct subsidies participation in the production price of peppers is 12%.

The average farm gate price of red peppers is € 0.3/kg for premium quality, while the average farm gate price for all categories is € 0.2/kg. The participation in the markup price is as follows: farmers with 70%, traders with 7% and handling costs (sorting, calibration, packaging and transportation) with 23%.

The producers are crediting the processing industry interest free from anywhere between 3 to 18 months. Although vegetable production per farmer is small, it is adapted to their home labor availability, subsistence needs for other crops and arable land sizes.

The investment cost in primary production of most open field vegetables is estimated at some € 2,000/ha/year. These costs account for some 50% of the farm gate price (€ 0.2/kg) of peppers on the basis of an average yield (approximately 20 t/ha).

Macedonia does not have significant competitors for the production of raw materials from neighboring countries.

The processed vegetable sub-sector is home grown, utilizing local investments which have added significant value over the last decade. The sub-sector is export-oriented and the source of income for a large population.

The processing industry has a total of around 58 companies packing goods in glass jars, tins or plastic. Most companies are export-oriented with 73% of the total product quantity (47,600 tons) being exported.

The vast majority (90%) of the processing companies are micro- or small-companies with up to 50 employees.

The sector has an overall installed capacity of around 120,000 tons of final output with low utilization of up to 45%.

Contract farming is not a common practice among the processors/traders, although the farmers have experience from the previous system. On average 20 - 30% of the raw materials are contracted and delivered by the producers/traders. The prices of raw materials vary heavily, depending on the demand in the region and the yields in the country.

The processing industry is labor intensive. Some 500 workers are permanently employed and another 1,000 seasonal workers are engaged over a period of four months.

Seasonal labor is paid from 37.5 to 70 MKD/hour (€ 0.6 – 1.2), with an average of 49.5 MKD/hour (€ 0.80). The average net monthly salary is around 10,000-11,000 MKD (€ 160 – 190).

Exports to the EU contributed with 48% in volume and 52% in value of the overall export of processed products, while the Serbian market was the second biggest with 27% in volume and 23% in value. Oversea markets (particularly Australia and the USA) are also important export destination due to large communities of people originating from the Balkans.

The processed products have a relatively low export value (around 1kg/ € 1,1). Producing and selling of own brands is lower than producing under private labels. Processors depend on importers/wholesalers who distribute their products abroad. The lack of contacts with reliable distributors/wholesalers/importers at export markets is a major constraint. Most companies on the other hand are too small to organize their own distribution networks.

There is a continuous increase of demand for processed vegetable products from foreign buyers which is evident from the growing capacity of the processors and the output of the production.

The top five EU importers of processed products are Italy, Germany France, Slovenia and Greece.

Market opportunities for processed vegetables are identified in particular for specialized products such as Ajvar and Lutenica, and the added value pickled program.

Most of the processors are organized in the Macedonian Association of Processors (MAP).

The earnings in the sector compared to the low level of investments needed can be attractive for investors. The investment potential in processing is huge, with vast markets and competition in a chronic lack of turnover capital. Most processors are interested in joint ventures with foreign investors as a way of addressing their constraints.

The establishment of new processing units is a definite prospect, coupled with the ample supply of raw materials at competitive prices.

The investment costs of the processing industry is estimated at € 0.5 /standard production unit (can or jar of 500 - 700 g) installed capacity. The investment in the processing equipment is estimated at € 0.15 / standard production unit (can or jar of 500 - 700 g) installed capacity.

The average markups of the processing industry are above 30% invested turnover capital/production price of per standard output unit (can or jar of 500 - 700 g). Lower level margins are associated with sales on the domestic market, while higher margins are associated with exports.

Raw materials, labor and packaging are the main costs, accounting up to 60% of the total costs.

The policies of the government are inclined towards the refurbishment and modernization of the existing facilities rather than towards establishment of new ones. Government support for modernization and market incentives has kept the value adding within the country and has sparked the growth of the primary production.

Regional competitors include few of the countries in the region, bearing in mind that the production process is fairly simple. Competitors for specialized processing pepper products include mainly Bulgaria and Turkey.

Solutions for the identified constraints and limitations

The table below lists the compounded constraints and limitations and ways to address them as identified by the interviewed role-players.

Constraints	Why are exports affected?	How can this problem be solved?
Lack of contacts with reliable distributors /wholesalers/ importers	No business contacts / network for SMEs	Participation at international fairs Database with reliable distributors Matchmaking and study tours
Poor production planning and no continuous feedstock for factories	High production costs and intermittent supply, poor competitive position	Training on chain organization Educating producers and processors Contract farming Adoption of code of conduct
Inconsistent and insufficient quality products	Consumers appreciation and non-compliance	Quality and Assurance management and training of middle and production managers
Non-compliance with (export) markets demands	Non-compliance with consumers' expectations Poor consumer awareness	Market intelligence and information on market access criteria Market visits and study tours
Poor product image, unknown origin	Products not attractive and do not match consumers' expectations	

SERBIA

General economic situation

Serbia has approximately 7.5 million inhabitants with a territory of 88,361 km². Serbia is one of Europe's fastest growing economies, with a GDP gaining nearly 7% on average. GDP per capita is about € 3,230. The inflation target is set in a range between 4 - 8%. Since 2001, Serbia has attracted over € 19.2 billion of inward FDI. The total amount of foreign investment into the agricultural and food sector after 2000 exceeded up to € 0.77 billion.

Agriculture

Agriculture is one of the most important economic activities in Serbia. Approximately 55% of the population lives in rural areas with around one third of the active population relying to some extent on agriculture for a living. Primary agricultural production accounts for over 10% of the GDP.

Agricultural land covers approximately 5.1 million ha of which about 3.6 million ha is arable land.

Irrigation systems cover an area of about 149,000 ha, with about 30,000 ha currently in use.

The combined number of people employed in agriculture (7%) and in the food processing industry (4.5%)

represents approximately 11.5% of the total labor force of 2.1 million people. Around 150,000 workers are employed in agro-processing and agricultural service providers. Food processing enterprises are the largest employer in this specific sector with more than 90,000 employees. Social insurance charges and salary tax amount to roughly 65% of the net salary.

Agricultural exports continue to expand and contribute to 24% of the total exports, making it the only sector with a positive foreign trade balance. The highest value of trade, in the amount of about € 2.5 billion, was reached in 2010 with a surplus of about € 0.92 billion.

The greatest export share from agricultural products is noted in cereals (6.2% of total export) and fruits and vegetables (5.6% of total export). Agriculture participates with 21% in the overall foreign trade.

Average import protection in agriculture for imports will be reduced from the original 23.2 to 3.2%.

The key trade partner for Serbia is the EU. The CEFTA signatories absorb about 43% of agricultural exports. At the same time, the largest volumes of imports originate from the EU. By value of imports, the most important partners of Serbia are Germany, Macedonia, Brazil, Croatia, Italy, the Netherlands, Bosnia-Herzegovina, Ecuador, Hungary and Poland.

Service providers for Quality Assurance Standards are readily available and increasingly engaged in the sector. Organic production is limited but increasing. Food safety and food quality issues are becoming essential prerequisites for the sector. HACCP is a mandatory requirement for all food operators.

The financial industry is relatively well developed, and offers specialized products for different agricultural activities including primary production and processing. The funds for the credits originate from various support credit lines.

State grants are offered for Greenfield and Brownfield investments in all industries, except primary agriculture, the hospitality industry, retail and production of synthetic fibers and coal.

Non-refundable state funds are offered in the range between € 4,000 and € 10,000 per new job. Incentives for employing new workers include a tax reduction for a period of two years. A wide array of incentives is also available at local level. The national program for agriculture comprises of direct incentives (premiums, refunding for inputs, crop

- Membership of the WTO
- Member of CEFTA and EFTA
- Free Trade Agreement with Turkey, Belarus and Russia
- Stabilization and Association Agreement with EU giving duty-free access to EU markets

Tax rates

Value Added Tax (VAT)	Standard rate -18% Reduced rate - 8%
Social Security Contributions	Pensions - 11% Health - 6.15% Unemployment - 0.75%
For Legal Entities	
Corporate Profit Tax	10%
Taxes on dividends, shares in profits, royalties, interest and capital gains	20%
Personal income taxes	
Capital gains, income from agriculture and forestry, self-employment, capital	10%
Salary Tax	12%
Copyright, property, profits from gambling and other income	20%
Annual Income Tax	10/15%

insurance, storage costs, introduction of QAS), structural incentives (raising orchards and investments in production and marketing) and market incentives, including export incentives as a return on percentage of the value of exported goods.

Raspberry and blackberry

Berries have been one of Serbia's main and most valuable export products for generations. By being ranked among the largest global producers, the sub-sector is significant for both national and rural income.

The primary production is massive in regards to the size of the country (with over 80,000 farms). Raspberries and blackberries are the third agricultural export commodity (after grains and sugar).

Serbia is one of the biggest producers of raspberries in the world with an annual production between 65,000 - 100,000 tons, reaching an average of 80,000 tons/year.

Raspberries occupy 65% of all planted berries. The main variety is Willamette (95%). The area for raspberries is some 15,200 ha, with an annual growth of 2.8%. Raspberry yields are between 5.7 and 5.4 tons/ha and are almost exclusively handpicked.

Serbia is one of the biggest producers of blackberries in the world with a production fluctuating around 30,000 tons. The main variety is Cacak Thornfree (75%). The 70,000 raspberry farmers also produce blackberries. Average yields are about 8 t/ha. The berry producers are assisted by an estimated seasonal workforce of 200,000 people. Most of the farmers are professional berry producers.

The majority of the berries grown in Serbia are varieties for processing, grown in open fields using outdated technologies and with relatively low yields.

Direct investment potential in primary agricultural production is limited due to the fragmentation and private ownership of land. Although possible it is feasible mainly on plots of government owned land.

Farming cooperatives of small size farmers can be considered as potential joint-venture partners for foreign investments into modernization and processing. Small farmers need investments required for the modernization of the production process, including the mechanized harvest (where applicable), irrigation, as well as changes in the variety composition. There are no large producers of berries that have not invested in a freezing facility. The procurement of land for berry production is estimated to be up to € 5,000/ha. On average, planting 1 ha costs between € 5,000 - 15,000, depending on the location, variety and investments in drip irrigation and anti-hail nets.

The harvest participates with up to 30% in the farm gate price. In addition, the upkeep costs account for 20 - 25%. On average the farmers profit with some 50% of the farm gate price. The break even return on the investment (land and plantation) is estimated at four to five years from the investment.

There are approximately 250 chilling plants in Serbia, with storage capacities ranging from 100 tons to 10,000 tons. The capacity of the processing industry has already significantly outweighed the primary production output. Serbia is a traditional exporter of fruit for processing, while other countries add value.

Much of the sector works with outdated equipment and faces hard times in moving to value-added production and quality assurance standards.

Less than 10% of Serbia's total raspberry production stays in the country while 40% of the blackberry production is not exported. About 97% of exports of berries are sold to the EU, accounting for 65% of total EU imports. Serbia's share of the total world raspberry exports is about 45%, the largest of any country. However, in terms of the value, Serbia is third, with a share of 13%. This is mainly due to the low competitiveness and profitability in production and sales. The export prices range from € 0.97/kg to 1.2/kg, following a steady growth trend since 2001.

The largest portion of exports is from processed frozen raspberries, followed by processed frozen blackberries. Exports of individually quick frozen ("rolend") make some 34% of total raspberry exports, with an average export price of € 1.44/kg. The share of "rolend" raspberries has risen steeply in recent years. Roland blackberries reach a 70% share in total blackberry exports, with € 1.30/kg average export price.

Serbia's frozen retail pack supply chain is small but growing. It is a business direction which did not exist few years ago. There is considerable potential for packing retail packs in Serbia and selling them for a 20% higher price. There is no export of fresh berries, although the prices are several times higher.

Serbia exports 17,700 tons of berry juices with an export value of € 16 million. Berry juice concentrates are primarily exported to Germany (1,087 tons) and Austria (1,434 tons), accounting to € 7.5 million or 47% of berry juice exports.

Foreign importers and distributors play a significant part in the berry supply chain. The majority of trade goes through them. The final buyers are supermarkets, hotels, restaurants, catering and processors. Cold stores increasingly sell to end buyers instead of wholesalers.

Serbian exporters do not have good contacts with retail buyers and lack representation and have no means to promote products internationally other than independent company efforts. Most of the processors are too small to become visible in the market and to develop a brand image.

The investment potential in processing is huge, with vast potential markets and little regional competition.

Foreign investments in modern processing include the Van Duren freeze-drying facility, which has contributed to the diversification and exports. Facilities which lack turnover capital for autonomous operation are often rented out and, following the short season, are often out of use. Such facilities show an interest for joint ventures with foreign partners aimed towards the modernization of the facility and increase of the capacity and quality of the production.

There is an increasing world supply of frozen raspberries and blackberries, for which the market is stable but the price appears stagnant. Market opportunities exist in selling diversified berry products abroad in retail packs to an unsaturated market. Concentrating on the local, regional and EU market seems to be a good market orientation along with diversification, rather than competing on the global frozen markets. Although the EU is the largest producer of berries in the world (87% of the total production), it is also the largest consumer (Germany and France with 10kg raspberry/inhabitant).

CIS countries also may prove good destinations for retail packed produce in a mid to long term view.

Market opportunities for fresh berries appear superior to those for frozen berries both for conventional and organic production. Organic markets, with a margin of 20 – 40% higher than for conventional products, are growing rapidly.

Dried berries, freeze-dried berries, smoothies, purees, concentrates, juices, preserves, and culinary ingredients (seed extracts, powders, etc.), are also a good potential due to the ample supply of cheap raw material. Companies produce a limited quantity of value-added products as technical knowledge is missing.

Chile, China and the United States are competitors for berry production on the global market. Poland and to some extent Bulgaria are competitors in the region.

The investment in the most common capacity IQF tunnels (2,800 kg/hour) vary from € 150,000 for used equipment to € 300,000 for new. Investment into cooling/freezing (+4 to -20 C°) is evaluated at € 350-550/m², depending on the make and the cooling equipment.

Solutions for the identified constraints and limitations

A mix of interventions at company and sector level is feasible and presented in the table below that lists the compounded constraints and limitations and ways to address them identified by the supporters of the supply chain.

Constraints	Why does this prohibit development?	How can this problem be solved?
Lack of new varieties for extended season/ fresh consumption	Short harvest season and marketing season Limited export as fresh produce	Information on benefits of moving into fresh production Develop the growing of new berry varieties Develop nurseries to deal with new varieties Educate berry producers
Lack of modern technology	Limited yields Reduced seasons	Study tours to berry producers Develop greenhouse projects
Lack of modern production knowledge	Limited productivity Limited diversification of products	Extension with experts on berry varieties, modern technologies, dried products, freeze-drying, concentrates, and new value-added products Organize study tours to foreign value-added producers
Logistical hurdles	Lack of access	Identify and assist in development of logistical companies to deliver fresh produce to market
Inadequate packaging	Unattractive products Unable to pack in accordance to demand	Educate packers on market requirements, labeling innovations, and design approaches Education and training for design community and companies
Lack of standards, including organic products	Limited access to markets Reduced prices	Support producers/processors in becoming certified in GlobalGAP, HACCP, BRC, AIB, Halal, Kosher, organic and Schutzgemeinschaft der Fruchtsaft-Industrie Work with organic associations in educating local producers on organic markets
Lack of marketing knowledge and activities	Lack of access to retail markets Sales through wholesalers Low awareness about Serbian products	Distribute marketing information on markets Organize visits to fairs and expositions Organize sales training for producers and associations Get producers in touch with foreign buyers Get producers in touch with local supermarkets Organize sales mission to Serbia for buyers Marketing campaign to increase local and regional consumption of raspberries and blackberries. Provide financial opportunity guidelines Provide marketing information on new, innovative and organic products that companies can produce
Lack of management / negotiation skills		Organize management training for companies and associations
Lack of associations and integrated approach		Development of export associations and integrated producer organizations Work with association on revising statute and services to be provided to members

Plums and prunes

Plums account for 52% of the area of all orchards in Serbia and account for an enormous quantity of raw materials. The workforce engaged in primary fruit production is very significant. Fruit trees are predominantly (95%) cultivated on traditional family-owned small farms. More than 75% of farmer households have fewer than five ha. The chief areas of production are the Kolubara, Macvan, and Sumadija regions. Serbia grows 0.4 - 0.6 million tons of plums, making it the world's third largest producer with 5.9% of the global production. With a total of 45 million trees on some 100,000 hectares, Serbia is ranked fourth in the world. The growing area for plums is decreasing by 1.1 - 4%/year. The average yield is approximately four tons per ha (10 – 13 kg per tree), and ranks Serbia 63rd in the world.

There are nine basic varieties: Pozegaca, the leading variety; Stenley; Chachak Rich, Chachak Beauty, Chachak Best, and Early Chachak; and heirloom plums, including Madzarka, Dzenerika, Ringlov, and Trnovaca. Serbia's main plum variety, Pozegaca, is not resistant to plum pox virus.

The domestic market is the major consumer, consuming from 60 to 80% of production, although fresh imports and exports are rising.

In 2004, Serbia began exporting fresh-market plums to Russia. It became the main export destination for fresh plums with growth from 105 tons in 2005 to 1,919 tons in 2010. Other countries such as Bosnia-Herzegovina, the Czech Republic, Germany and Switzerland, have lost their top status but are still

considered important and stable markets. Export prices indicate that plums are sold more to the industrial market (apart from Russia).

Buyer-traders usually buy fresh fruit from farmers at the assembly points and sell with little or no sorting and pre-packing. In the last two years the number of exporters has rapidly increased. The intermediary scene is complimented with agents of Russian importers.

The largest constraint of the primary sector is related to lack of capital for reinvestments. Old orchards still dominate the tree fruit production. Fragmentation and the small surface area covered by the average orchard is a big obstacle to raising competitiveness.

In the last few years, new emerging markets have made quite an impact on exports of fresh plums. The market opportunities, especially in the Russian markets, are promising. The current positive trend is expected to improve the cash flow in the sector enabling the much needed modernization and access to the EU market. The EU market is a strategic direction for market diversification for fresh plums from Serbia. However, improvement of the quality is a precondition to significant increase of the exports.

The production/investment costs of the primary production are estimated at some 50 - 60% of the value of the farm gate price. One hectare can cost between € 2,000 to 6,000, while saplings cost from less than € 2 (uncertified) to 13.5 (certified). The establishment of 1 ha of orchards costs € 12,000/ha. Planting on state-owned land costs some € 8,500/ha.

The major world importers are the United Kingdom (€ 80 million), Germany (€ 46.3 million), the Netherlands (€ 41.6 million), and the United States (€ 41.3 million).

Based on the average yields sold at average farm gate prices, an investment in 1 ha of plums would have a breakeven point of 5 - 7.5 years. This calculation does not take into consideration the growth period prior to the harvest and government incentives.

With the country's strong tradition of fruit growing, Serbia's fruit processing industry is well developed with huge potential for the export market. 65% of plums are used for the production of brandy, 30% in local preserves (jams) and juice concentrates, 6% is dried.

Serbian plum brandy is mostly home-made in some 250,000 small distilleries (400,000 liters).

Prunes are the leading dried fruit exported from Serbia, constituting 99% of dried-fruit exports. Prunes are the most competitive plum product which has gained significant relevance in recent years, reaching up to 4,100 tons. There are some 5,000 mini-drying facilities and few modern industrial facilities. Drying facilities are mostly outdated, locally made working on coal, oil or wood and few use electricity or natural gas. Most drying facilities usually sell prunes that have not yet been pitted. Pitting is slowly becoming a condition for both the local and the export markets. Frozen plums have a significant share in the plum (processing) production.

The largest buyer of prunes is Russia reaching some 1,686 tons which has been contested in recent years by Turkey and followed by Bulgaria, Romania, Italy, Croatia, the Netherlands and Slovenia. The export prices range from € 495 (Romania) to € 3,051 per ton (Turkey), while the average highest price is paid by Russian importers at some € 1,332 /ton. On average, higher prices are being achieved in trade with Austria, Croatia, Slovenia, Germany and France.

Very few large-scale processors exist mainly involved in drying, freezing and the preparation of concentrates. The vast majority of drying facilities are small and usually family-owned SMEs that process plums into prunes.

The processors spend approximately 50% of their turnover capital on raw materials, followed by labor costs with 17%, energy with 12% and finally packing materials with 8%.

Larger wholesale packaging predominates (carton boxes at 10 – 15 kg). Retail packaged prunes (up to 500 g) gain better prices and could be marketed in larger quantities on international markets.

Foreign importers and distributors play a significant part in the berry supply chain. The majority of trade goes through them, though local producers are gradually starting to export directly to the final buyers.

Much of the sector is struggling to meet the increasing demand and maintain the quality of the production. Lack of consolidated export promotion and sales are a result of poor coordination. Exporters compete with each other rather than addressing threats posed by formidable agricultural export competitors.

The investment potential in primary agricultural production is limited due to the fragmentation and private ownership of land. Although possible, it is feasible mainly on plots of government-owned land.

Investments in new varieties suitable for export production and processing could be very effective in the medium term, taking into account the growing market demand. On the other hand, modernizing the production can significantly increase its productivity and profitability.

Frozen plums, purees, concentrates, juices, preserves and culinary ingredients have considerable potential and competitiveness due to the ample supply of cheap raw material available for the local processors, including conventional as well as organic products.

The most important competitors, ranked in order of their supply contribution to the world market, are Argentina (43%), Chile (17%), Tajikistan (12%), Ukraine (8%), Moldova (7%) and Uzbekistan (4%) (22).

The policies of the government are inclined towards the refurbishment and modernization of the existing facilities and the establishment of new ones. The investment potential in processing at the moment is significant, taking into account the increasing demand and export levels.

Most of the prune producers feel positive regarding the establishment of more processing facilities as this would increase the number of prunes and access to markets. Few processors are interested in joint ventures with foreign investors as a way of modernizing and the capacity increasing of their operations.

Solutions for the identified constraints and limitations

A mix of interventions at company, branch and sector level are feasible and are presented in the table below that lists the compounded constraints and limitations and ways to address them as identified by the supporters of the supply chain.

Constraints	Why does this prohibit development?	How can this problem be solved?
Lack of varieties for fresh consumption /drying	Short harvest season and marketing season Limited export as fresh produce	Information on benefits of moving into fresh production Develop the growing of new plum varieties Educate producers
Lack of certified virus-free planting material	Spreading of pox virus Reducing production Variable production	Develop nurseries to deal with new varieties and certified planting material Local producers use virus-free certified nursery plants Nursery plant importers
Lack of modern technology	Limited yields	Study tours for producers
Lack of modern production knowledge	Limited productivity Limited diversification of products	Extension with experts on varieties, modern technologies, dried products, concentrates, and value-added products Organize study tours to foreign producers of value-added products Organize soil and water analysis, leaf mass quality, product grading, pesticide residues Assistance with harvesting issues, proper harvesting techniques, correct timing for optimum storability and sustained quality
Lack of standards, including organic products	Limited access to markets; Reduced prices	Support producers/processors in becoming certified in global GAP, HACCP, BRC, Halal, Kosher, organic and Schutzgemeinschaft der Fruchtsaft-Industrie work with organic associations, educate local producers on organic markets
Lack of marketing knowledge and activities	Lack of access to markets Sales through wholesalers Low awareness of Serbian products	Distribute marketing information Organize visit to fairs and expositions Organize sales training for producers organizations Get producers in touch with foreign buyers Get producers in touch with local supermarkets Organize sales mission to Serbia for buyers Provide financial opportunity guidelines
Lack of management / negotiation skills		Organize management trainings
Lack of associations and Integrated approach		Development of export associations and integrated producer organizations Work with association on revising statute, and services to be provided to members

ALBANIA

General economic situation

Albania covers an area of 28,748 km². Annual rainfalls vary from 1,000 to 2,500 ml. There is a population of 3,182,000 inhabitants. It is estimated that during the transition period around 860,485 Albanians migrated abroad, accounting for some 27.5% of the total population. Albania submitted its application to be an EU candidate country in April 2009.

The Albanian economy has been on a solid path of growth throughout the last decade, achieving a high real growth and low inflation (2% and 3.5%) and a relatively stable exchange rate of the Albanian Lek. GDP per capita was € 6,000/year in 2011 and the absolute poverty rate fell to 12.4%. The unemployment rate remains relatively high at 13.1%. SMEs dominate Albania's economy representing 99.6% of all registered businesses.

The total amount of FDI between 2000 and 2010 is estimated to be € 3 billion.

Agriculture

Agriculture remains one of the largest and most important sectors. Currently, it contributes around 18% to the total gross value added. A substantial portion of agricultural production remains subsistence-oriented. The farm size in Albania is on average 1.2 ha. Roughly 25% of farms have less than 0.5 ha, 64% have from 0.6 - 2 ha, while 11% of farms have more than 2 ha of land.

The majority of farms (84%) combine crop and livestock farming. The overall number of farms has decreased by about 14%, while the overall agricultural and food production has slightly increased during the last ten years.

Livestock is the most important agricultural sub-sector, representing 52% of the total value of agricultural production, followed by field crops with around 29%, and then fruit trees with about 15%.

Agricultural land (about 1.12 million ha) covers roughly 39% of the country, of which 584,000 ha (about 52%) is arable land, 123,000 ha is under permanent crops and 415,000 ha (37%) is grassland.

76.5% of arable land is privately owned by rural families and the remaining part (137,000 ha) is state property of which 110,000 ha is low quality and remote while 27,000 ha is available as public land.

The existing infrastructure of irrigation, drainage and flood protection has been designed for around 360,000 ha, ensuring drainage to 280,000 ha, and the reduction of the risk against a river and sea flooding to 130,000 ha.

With 48% of total labor the agricultural sector continues to be one of the most important sectors of the Albanian economy. Around one-third of farming households receive income from remittances.

Lack of loans in the agricultural sector is evident. Few banks are crediting investments in agriculture as part of their portfolios. Micro-credit is not developed in the rural areas and it covers only 10 - 15% of rural families and enterprises. High interests of micro-credit schemes (24%) distance the banks from the rural areas.

Despite the high share of agriculture in GDP, Albania's agricultural export performance is weak, with an export/import ratio of 1:10, leading to a trade deficit of about € 531 million. During recent years, the agricultural trade deficit has increased significantly.

The largest Albanian export products are niche market products that require labor-intensive production methods (oleaginous herbs and seeds, frog legs, and fish). The EU is the main trading partner.

Albania has a relatively liberal trade regime for the agricultural and food sector, composed of five tariff levels for most favored nations (MFN): 0, 2, 5, 10 and 15%, respectively, and no tariff-quotas.

- Membership of the WTO
- Member of CEFTA and EFTA
- Free Trade Agreement with Turkey
- Stabilization and Association Agreement with the EU giving duty-free access to EU markets

Foreign investors willing to operate their business in Albania will benefit from a flat corporate and personal income tax rate of 10%. The "Albania 1 Euro" initiative, aims to grant entry into the market for literally one Euro.

The agriculture and food Sector is supported with

Tax	Tax Rate
Corporate Income Tax	10%
Personal Income Tax	10%
Value Added Tax	20% general tax rate 10% preferential rate 0% certain commodities
Tax on Real Estate	2%

direct payments and interest rate subsidies (or credit guarantees) for investment in production technologies, new plantations, breeding animals, equipment, machinery and storage capacities etc. Food safety and quality is another major challenge, and one of the key factors limiting Albanian agro-food exports to EU countries, causing large trade deficits. Support measures for the organic sector are provided by the Ministry of Agriculture; support per farm is 70,000 ALL/farm (equal to € 500).

Medicinal and aromatic plants

The collection of medicinal and aromatic plants (MAPs) is well developed in Albania. The herbs and spices sector is the biggest in terms of the number of people involved. There are no official statistics on the number of workers involved. However, estimates indicate that some 76,000 people depend on the collection of medicinal and aromatic plants for an important share of their income.

A wide range of MAPs is sold to the international markets mainly as bulk and essential oils. Over 95% of MAPs are wild collections grown all over the country.

Albanian plant life includes roughly 3,200 various medicinal herbs, of which 250 species are harvested for commercial purposes. The most important export items are Sage, Oregano, Juniper, Thyme, Savory and Laurel.

Albania is the third largest exporter of MAPs in Europe, and ranks as the second European country (after Bulgaria) in terms of trade surplus in MAPs. Albania has held a major role in the international trade of MAPs for decades. Today, Albania exports about 8,000 tons of medicinal herbs per year, valued up to € 15 million and accounting for 25% of all agro-food exports. Most important for the sector is sage which accounts for about 50% of all exports, with an estimated volume of 2,000 to 2,500 tons/year with a total export value of almost € 2 million/year.

The main destinations for exported MAPs and essential oils are the USA, Turkey, Germany, Austria, Italy and France. Some fresh herbs are also exported to Switzerland.

85% of the MAPs are spices and herbs which are dried and crudely cleaned (including smaller stems) but not processed further. The remaining 15% of the quantity has lower quality and is crushed or used for ground spices, essential oils or oleo resins. A share of MAPs exports are processed further and then re-exported to other countries.

Albanian MAPs in general have prices significantly lower than those of the rest of the world, to a large extent due to poor post-collection practices (involving sorting, cleaning, varietal purity, phytosanitary conditions, food safety treatments, freshness, moisture level, etc.), that can affect the quality characteristics.

The Albanian government and public institutions show very limited involvement in the MAP sector, despite its importance.

There are 27 herb processing companies which are supplied by the consolidators or gatherers. Large processors have collection agents or branches in selected districts. Herb processing is a relatively small operation sized with processors employing 11 - 20 workers on average. The average turnover is 100 to 500 tons valued at € 0.5 – 1 million/year.

Most processors are small and use traditional, low-level technology. Labor intensive technology and raw materials represent more than half of the total operating costs. These processors are not adapting and investing to stay competitive in the international environment. Medium-sized processing companies (some 5 - 7) and the two largest processors are exporting to different buyers in foreign markets.

Few companies add value to their products through organic certification or through the production of essential oils.

A very limited share of the total production of herbs and spices is cultivated, although it appears that this is changing. Large and medium-sized companies have contract production arrangements with a number of farmers who cultivate limited surface areas. The cultivation of herbs has potential to control (and lower) production costs, the capacity to improve the quality of raw materials and to assure continuous and expanding volumes. Few herbs are in sufficient demand to encourage their widespread commercial cultivation. According to the most recent estimations (2008) there are few hundred hectares with oregano and thyme, and a few tens of hectares with sage and lavender. The total area does not exceed 500 ha. This activity takes place in different seasons of the year. The large operators distribute free seeds to farmers in order to increase production.

15 small, medium and large-sized processing companies produce between 35 and 40 tons of essential oils. All processors use steam distillation annually.

There are about 10 export companies that deal exclusively in herbs. The bulk of the trade enters the EU through a small number of major brokers and trader/importers.

Given that they deal with foodstuffs for export, working conditions are often below what is required by regulations and/or good practices. With the EU approximation Albania will have to tackle this problem, through the introduction of HACCP, at least, in the upper segments of the supply chain.

Large areas of wild medicinal and aromatic plants are being damaged because of improper harvesting practices and a lack of control by institutions. Other problems include environmental damage, diminishing quality due to over picking and the decline of certain species of MAPs.

Investments in cleaning and sterilization facilities are a definite consideration for the preservation of the export.

Investment in the Albanian herb sector should not be considered as an isolated activity in the action of processing. Investors should address supply chain management including: development of market intelligence, quality measures with gatherers and collectors, development of cultivated production and quality and efficiency improvement at the processing level.

Entrance into the Albanian market through branches of larger foreign companies with much larger financial, organizational and technical resources than local competitors is feasible.

For the foreseeable future, the international market will remain the primary target for sales of Albanian MAPs. The sub-sectors grew in both size and efficiency in the last decade and, in parallel, western European nations have almost doubled their imports of MAPs.

The re-export of MAPs is an essential part of business throughout the world. Regional competitors for Albanian exports primarily include Bulgaria and Turkey, and to a smaller degree Serbia and Macedonia.

In addition, competition for the main markets (Germany, the United States, Italy and France) is becoming fiercer.

Due to competition and migration, the medicinal herbs sector is shrinking. In contrast, traders' margins are already decreased and the share of the final value remains to farmers, who already obtain 20% higher prices compared to 2 - 3 years ago. This trend is expected to counterbalance the loss of labor for wild gathering with mild effect to the collection capacity. However, this has already resulted that sage in high hills and mountain areas is harvested less, while wild MAPs nearer to villages are over-harvested.

Solutions for the identified constraints and limitations

A mix of interventions at farmer, industry and sector level are feasible. The table below lists the compounded constraints and limitations and ways to address them.

Constraints	Why does this prohibit development?	How can this problem be solved?
Lack of vertical and horizontal integration	Affected quality, reduced effectiveness	Combination of vertical and horizontal integration
Lack of application of quality assurance and trade standards , underdeveloped processing practices	Affected quality	Implementation of quality assurance and trade standards
Sales in bulk	No value added, limited profits	Introduction of processing practices
Limited application of food safety standards	Less appreciated product, lower prices	Introduction of food safety standards along the entire supply chain
Lack of policies on sustainable development	Unsustainable harvesting	Introduction of the sector in strategic policies and actions plan
Lack of knowledge on collecting, drying and storing	Affected quality	Training on appropriate collecting, drying and storing
Limited investments in cultivation	Dwindling supply, limited sustainability	Investments and training in cultivation

CROATIA

General economic situation

Croatia has a surface of 87,609 km², consisting of 56,542 km² (64.5%) of continental land area and 31,067 km² (35.5%) of territorial sea area. Croatia has a total population of 4,437,460 people. The country was awarded candidate status in 2004. Croatia will join the European Union in 2013 and has been a member of NATO since 2009. Since 2000, the national economy was characterized by economic growth until 2009 when, due to the financial crisis, Croatia recorded negative economic growth. The Croatian macroeconomic environment is stable, reflected in the low inflation rate and confirmed by the long-term credit rating. The country's national debt remains high at 52.8% of GDP (2012). During the last six years the unemployment rate declined, up until the point of global crisis. In 2012 a total of 333,400 unemployed people were registered in Croatia. The average Croatian HRK/€ exchange rate oscillations have been very low.

From 1993 to 2010, Croatia received foreign direct investments to the total amount of € 24.5 billion. Investments in agriculture and food account for 1.5% of the total investments.

Agriculture

Agriculture has an important role in the labor market as a significant percent of the population earn their income from the agriculture and food sector. However, despite agriculture's importance it is showing signs of a declining trend. The gross value added of agriculture has decreased to less than 7%. The same trend can be observed for the food processing industry. Croatia suffers from a deficit in the agro-food sector and is currently self-sufficient in only a few agricultural commodities. Two thirds of the land (63%) is classified as agricultural land and forests.

The farming structure consists mainly of small family farms which mostly produce for their own needs. Their share in market production is very low. The largest share is produced by large farms which have been growing at the fastest rate in the last few years. Croatia is almost last in Europe for land irrigation. Only 9,000 ha are irrigated although there is potential for 600,000 ha to be used. With the onset of climate change, Croatian agriculture is now more exposed to droughts.

24,500 people are employed in legal entities involved in agriculture, some 8,500 people are self-employed craftsmen related to agriculture and 32,000 people are employed as farmers.

The EU represents the main trading partner prevailing somewhat to the CEFTA parties. Within the CEFTA group, in 2010 a surplus in the trade of € 332 million was achieved, while at the same time a trade deficit of € 907 million was realized with the EU countries.

An average customs rate of 5.5% is applied, while the maximum customs fees are 20% for selected goods. There is no customs duty on exports to the EU for most Croatian goods.

The financial industry in Croatia is well developed and offers specialized products for different agricultural activities, including primary production and processing.

The Croatian Bank for Reconstruction and Development (HBOR) operates a loan program with interest rates of 2 - 4% and repayment time frames of up to 12 years. Reduced interest rates of 2% are available to less favorite areas and successful enterprises.

For farmers unable to obtain guarantees, the Croatian Agency for SME (HAMAG) acts as a guarantee for the credit. The maximum amount of credit is 3,500,000 HRK (€ 472,972).

Investors investing at least € 300,000 can benefit from various incentives, such as tax and customs benefits, support for opening new workplaces,

support for the training and re-training of employees, support for technology and innovation activities (5% of the justified high-tech equipment costs).

The government provides support through a system approximated to the EU and covers direct payments, measures for regulation of the markets and measures for rural development.

Direct payments are paid based on output and per hectare/head. The government and local authorities also subsidize the procurement of certified planting materials.

Farmers benefit from the insurance that the ministry and local authorities participate in the covering of 50% of the insurance costs.

Registered producers and VAT subscribers can also benefit from subsidies for capital investments. The maximum participation of the support goes up to 25% of the total value of the credit or 20% of the total value of the investment. The maximum investment amount is 10,000,000 HRK (€ 1,351,351).

Tax	Tax Rate
Corporate Income Tax	20%
Corporate Tax on Retained Earnings	15%
Personal Income Tax	12-40%
Value Added Tax	25% general tax rate 0-10% preferential tax rate
Property Taxes	
Sales Tax on Real Estate and Rights	5%
Inheritance and Gifts Tax	Up to 5%

IPARD is a pre-accession program of the EU for the period of 2007 – 2013. The minimum value of eligible investment per project is limited to 33,800 EUR and the total value is limited to 3,000,000 €.

Due to the reform of CAP, most of the agriculture and rural-development related programs end in 2013 and new ones are currently being developed.

Croatia approximated its food safety system and the legal framework with the EU, including a system of formal controls supported by a network of laboratories. HACCP is a mandatory requirement for all food operators. Service providers (implementers and certifiers) for quality assurance standards are readily available and engaged in the fruit sector.

The government participates with subsidies for the costs of implementation and certification of quality assurance, while the local authorities recover up to 50% of the costs for organic standards certification.

Mandarins

Some 50,000 ha are covered with fruit trees predominantly cultivated by private smallholders. In terms of land surface, mandarins account for some 17% of the fruit production.

The production of mandarins has been significantly increasing in the last decade due to the high returns on investments despite the long waiting periods (six - eight years) from planting to full productivity.

The total area where mandarins can be produced accounts for 54,894 ha of arable land with different soil qualities. The largest production is located in the Neretva valley (some 90% of the total production) due to the significantly lower risk of frost damages. Mandarin production is carried out on some 2,000 ha, belonging to some 1,500 farmers. Several legal entities have ventured into mandarin production. The average yield is 34 tons/ha.

A total of 17 varieties of mandarins are grown, offering the distribution of fruits for some two months. Some 15,000 tons of mandarins are consumed in Croatia or some 2 kg/inhabitant/year.

The harvest begins in September, somewhat earlier than the main competitors, and lasts for approximately three months which is a comparative advantage for the sector.

Croatia exports up to 41,000 tons of mandarins valued up to € 20.7 million. The mandarins are exported in the CEFTA countries, Russia and the EU. The buyout and export of mandarins is regulated by the government. The farm gate price goes up to 4 HRK (€ 0.54), although the average is approximately 3.3 HRK/kg (€ 0.4). The mandarins are exported at € 0.55-0.6 /kg. Average farm gate prices of mandarins in the last decade ranged between 2.39 HRK/kg (€ 0.32) (lowest price in 2006) and 4.63 HRK/kg (€ 0.62) (highest price in 2005).

Public competitions for support for buyout of mandarins are announced by the Ministry of Agriculture. The government co-finances the costs for buyout under the condition that buyers cover the minimum prescribed price. The buyers are obliged to have paid the full value of the fruits prior to applying for the support. The program provides support to the extent of some 36 million HRK (€ 4.86 million) in subsidies. With rulebooks on fruit quality the government prescribes the market quality standards and models of control and inspections.

The demand is rising both on the regional and the EU markets. Recently the mandarins found their way to the Russian market, fostering even higher interest for investments.

The minimum quantities for buyout were revised from 1,000 to 500 tons in order to allow smaller companies to participate in the competition.

Mandarins are a sector which will not be influenced by quotas once Croatia joins the EU.

The large producers are heavily dependent on the seasonal workforce for the harvest. The lack of labor has been supplied by workers (Croatian citizens) from Bosnia-Herzegovina.

With the legalization of the seasonal work in 2012 the levies for the pickers account for an additional 25% to the wages paid to the pickers. A picker can earn between 200 and 300 HRK (€ 27 and 40) per day. Illegal pickers could also be banned from re-entering the country next year. Certain farmers have introduced new methods by attracting tourists to participate in the mandarin harvest for a day or two.

Investment in primary agricultural production is limited for large plantations due to the fragmentation and private ownership of land. However, the investment potential is significant as there is sufficient land area for the increase of the production. Larger investments are feasible mainly on state owned land or in cooperation with entities already leasing state land. State-owned land is provided to investors through public competitions (on a lease of up to 50 years).

Investments in the buyout and trade sector is preconditioned with the award of appropriate licenses on public competitions organized annually by the Ministry of Agriculture or as joint ventures with companies already involved in the buyout.

There is a good outlook for the Croatian mandarins both in the neighboring (CEFTA countries), as well as the EU and Russian markets. The comparative advantage of ripening some two to three weeks earlier than most of the competitors ensures market opportunities in spite of the booming (world and European) mandarin production and exports.

Croatia is already present on the Russian market which is the largest import market in the world. This market can easily absorb the whole quantity of Croatian mandarins. In addition, the comparative

advantage and the proximity are attractive for the second, third and fourth largest markets (Germany, France and the UK).

The traditional CEFTA markets are attractive for the later varieties of mandarins as they do not distinguish much between varieties.

Croatia's mandarins are sold at a cheaper price compared to Spanish and Moroccan mandarins and a similar price to Italian and Turkish produce but more expensive than Greek mandarins.

The investment cost for the planting of mandarins is some 35,000 HRK/ha (€ 4,400) depending on the level of equipment, not including the actual work for planting and for the land. Land prices for plots suitable for planting of mandarins are about 30,000 €/ha. The initial fruit production is achieved after five years, while full fruit bearing is reached in eight years.

The average yields account for some 35,000 kg per ha, bringing some 100,000 HRK (€ 13,513) profit to the farmer. However, approximately one half of this earning covers costs for the maintenance of the orchards, resulting in net profits of some 1.6 HRK/kg on average (€ 0.21). The return of the investment is estimated to be reached within the third year of yielding.

Solutions for the identified constraints and limitations

A mix of interventions at farmer, industry and sector level are feasible and presented below. Special attention should be given to sustainable solutions in light of the EU accession.

The table below lists the compounded constraints and limitations and ways to address them identified by the role-players of the subsector.

Constraints	Why does this prohibit development?	How can this problem be solved?
Lack of modern technology	Limited yields	Study tours to producers Study tours to agriculture technology fairs
Lack of modern production knowledge	Limited productivity Limited diversification of products	Organize study tours to foreign producers and post-harvest, storing and packing centers Assistance with harvesting issues, proper harvesting techniques, correct timing for optimum storability and sustained quality
Lack of organic products	Limited access to organic markets Reduced prices	Support producers/processors in becoming certified in organic production Work with organic associations to educate local producers on organic markets
Lack of seasonal workforce	Increased costs for the producers Inability to expand production	Appropriate motivation of the local population and potentially interested sub-groups (students, welfare beneficiaries, residents of poorer municipalities etc.)
Lack of associations and integrated approach	Farmers are unable to organize producer groups and venture in direct sales of their produce	Development of prerequisites needed for producer organizations

Olive oil

The olive growing in the coastal areas has significant social impact and potential for the revitalization of the rural areas, especially of the less favorite areas. The olive production also contributes to the prevention and recovery from wild fires. The sector is characterized by traditional production which in the last decade has modernized and grown mainly due to state support for the renewal of old and the establishment of new olive groves. The intensive planting efforts will yield their maximum output in the years to come. The growth of the olive sector will be limited once the country joins the EU due to the production quotas. Therefore, Croatia rightly focuses on the small-scale production, with numerous natural quality properties aimed at exclusive niche markets.

More than 40,000 households and 38 legal entities are involved in olive production. Olive growers are associated in 38 organizations and are usually very active in the organization of numerous events. However, most of the growers are still not members of associations or producer organizations.

The individual olive growers have on average 0.71 ha. Compared to the EU the average size of the olive groves are 2 ha. Some 3.7 million olive trees are planted out of which 86.5% (3.2 million) are productive trees. This area accounts for 1.3% of the total agricultural area. The average yield per tree ranges from 10.63 kg to 16.3 kg/tree.

Olives start to be produced after few years. However, the maximum yields are obtained in approximately 12 years from planting. The largest share of olive production belongs to the indigenous varieties but there are also other domestic and foreign varieties.

Large individual producers (both individual farmers and legal entities) are heavily dependent on seasonal workforces for the harvest. Currently most of the pickers in Istria come from Slavonia, and in Dalmatia from Bosnia-Herzegovina. The average daily fee is 250 HRK/day (€ 33.7) in Istria and 200 HRK/day (€ 27) in Dalmatia. The levies for the pickers account to an additional 25% to the wages paid to the pickers. The production of table olives is variable and fluctuates between 500 to 2,600 tons as many of the varieties produced are with dual purpose.

Investment for foreign investors in primary agricultural production is somewhat limited due to the fragmentation and private ownership of land, however possible given the relatively small size of plantations across Europe. Investments in large olive groves is feasible, mainly on plots of government-owned land (leased for up to 50 years through a one-time payment) or in co-operation with entities already owning and cultivating state land. The government and local authorities are supportive of such investments.

The investment cost for the planting of olives is some 100,000 HRK/ha (€ 13,513) although this depends on the level of equipment and does not include the actual work for planting and land.

Land prices for plots suitable for the planting of olives are on average about 25,000 €/ha, while leasing prices on state-owned land range between 80 and 200 HRK/year/ha (€ 10.8 - 27).

The average current yields account for some 2,300 kg per ha, yielding some 16% of olive oil (368 l/ha) or sold at an average price of 60 - 80 HRK/l (€ 8.1 - 10.8), bringing an estimated return to the farmer of € 2,860/ha/year. However, approximately 40 - 50 HRK (€ 5.4 - 7) of the earnings are costs for the maintenance of the orchards, resulting in average net profits of some 30 - 40 HRK/l (€ 4 - 5.4) of olive oil. Bearing in mind the long period between planting (initial investments) and harvest, as well as the incurred costs for maintenance during the non-yielding period, the return of the investment is estimated to be reached within 10 - 12 years, i.e. the third year of yielding, not taking into consideration the cost of land and the savings in investments on account of government incentives.

The processing of olive oil is conducted by some 148 modern facilities as well as in 27 small family-owned establishments. In the last few years the processing industry has significantly increased and modernized. 80 processors are using both cold pressing and centrifuges while 49 have presses.

The processors are well distributed and on average they are processing some 300 tons of olives. The installed capacities range from 0.35 t to 4 t of olives/hour, although the most commonly installed capacity is 1.5 t/hour. There are 14 processing units for the confectioning of olive oil and a total of nine processing plants for packing table olives. The installed capacities can in principle process the entire production of the country within 40 working days operating at one shift.

Government subsidies also target parts of the processing industry which are less developed but provide significant cost reduction possibilities.

The processing units are adapted mainly for the production of mainly virgin olive oil and very few capacities are used for other olive oil derivatives (refined, raw olive oil, olive oil from pomace etc.)

The olive oil sub-sector is very small and Croatia is a net importer of olive oil of a lower quality class. Out of the total olive oil production (average 60,000 hl) a significant quantity of Croatian olive oil is produced in mills which operate as service providers. Up to 70% of the oil is given back to the producers. The oil is used for home consumption and sold individually by farmers.

Total local consumption of olive oil is between 2,815 and 6,571 tons per year. Consumption per capita on average is approximately 1 liter/capita. The positive trend in demand has been influenced by consumer awareness regarding the health and nutritional value of olive oil, especially in the last few years.

Most of the processors are equipped with processing equipment from Peralisi, Italy, including cold pressing and centrifuges preserving the quality of oil.

Because Croatia currently imports refined olive oil, the country needs a refinery plant that would refine oil and distribute it on the market.

Croatia will unlikely compete with other Mediterranean countries in terms of quantities, however the achieved quality has already been awarded with numerous recognitions on global level. Croatia has recently been included in the most prestigious guide for extra virgin oils – Flos Olei, also formerly known as L'extravergine. The criteria for being listed are demanding, and any inclusion on the list makes an olive oil a quality recommendation. The guide includes olive oils from 42 countries on five continents. Italy has the largest number of listed oils, France has 12, Greece five, while Croatia has 45 listings.

The exported olive oil is produced by larger processing companies which buy it from farmers after processing their olives. The buyout of the olive oil is subsidized by the Government through competitions, open to Croatian physical and legal entities. The buyers are obliged to pay in full the total quantity of oil to the producers by the end of the year. Croatia exports between 150 and 450 tons of olive oil. Most of it is exported to the neighboring markets of Bosnia-Herzegovina (40%), Austria (7%) and Slovenia (15.6%), while a significant part is also exported to Germany (16.3%).

High quality olive oil is exported to the EU countries at high prices ranging from 18,500-36,800 US\$/ton

(€14,230 - 28,307), while lower quality oil is exported to the main trade partner Bosnia-Herzegovina at an average price of 6,000 US\$/ton (€4,615).

Investments in the processing sector are supported by the government in the form of grants and credits. This goes especially for the neglected parts of the sub-sector such as an oil refinery or olive pomace processing. Processors are interested in joint ventures with foreign investors which could improve/increase their share in the procurement of olives, complement the modernization of the processing facilities or improve the chances of access to more lucrative markets.

Market opportunities for Croatian olive oil exist both on the local and the international markets. Croatia produces high quality oil that will have to find its place in the market amid a tough competition in neighboring countries. The policies of the government in the near future will also shape the market potentials of Croatia. Support for the bottling of premium olive oils and PGO/PDI registration for protection of the image of Croatian high quality oil will be crucial. Regulations on olive oil production including blending using imported olive oil will also have a significant impact.

The market of olive oil in Croatia is not well developed in terms of organization or infrastructural development with a high percentage of uncontrolled trade. The average consumption is low compared to other Mediterranean countries. The prices of olive oil on the Croatian market are considerably higher compared to those on the international market. An increasing share of consumers demand olive oil set apart on the basis of quality attributes, such as PDO/PGI and organic products.

The production with quality attributes will help to expand the market in countries where a premium price for premium olive oils is paid. Therefore Croatia's share of the market will depend on added value and high quality olive oil available at limited quantities.

Solutions for the identified constraints and limitations

A mix of interventions at company, industry and sector level are feasible and are presented in the table below that lists the compounded constraints and limitations and ways to address them identified by the supporters of the supply chain.

Constraints	Why does this prohibit development?	How can this problem be solved?
Lack of modern technology and modern production knowledge	Limited yields Underutilization of raw materials Increasing import of olive with lower grades	Study tours to producers Feasibility studies for use of olive pomace Support for establishment of facilities for utilization of olive pomace Feasibility study for refining of olive oil Support for establishment of olive oil training facilities Assistance with harvesting issues and introduction of mechanization Organize olive oil analysis. Organize study tours to foreign producers Support for intensification of the primary production Introduction of other olive based value added products (olive paste etc.)
Lack of standards, including organic products	Limited access to markets	Support producers/processors in becoming certified in Global GAP, HACCP, BRC, Halal, Kosher, organic Work with organic associations in educating local producers on organic markets
Lack of associations and integrated approach		Development of export associations and integrated producer organizations