



USAID
FROM THE AMERICAN PEOPLE

USAID Agribusiness Project
57 Internacionalnih Brigada
www.dai.com
11000 Belgrade
Serbia



TREE FRUIT VALUE CHAIN COMMODITY ACTION PLAN

June 23, 2008

Introduction

Serbia has fertile soils and favorable climatic conditions, ideal for fruit production. Fruit growing has always been an important part of Serbian agriculture and economy providing jobs in rural areas, supplying quality and locally grown produce to consumers and contributing significantly to rural economies and local communities.

The total surface of arable agricultural land in Serbia exceeds 4.2 million hectares, out of which 210,000 hectares (5%) are covered with tree fruit. Tree fruits are predominantly cultivated (95%) by private smallholders and traditional family-owned small farms. Over 75%, of farmers' households have less than 5 hectares while fewer than 5% have more than 10 hectares. In 2006, 15 % of Serbia's total value of agriculture primary production was from the tree fruit sub-sector. Apples were the country's fifth and plums were tenth ranked commodities in terms of output value. In terms of land surface, plums dominate, accounting for 52% of all tree fruit orchards in Serbia, apples are covering 17.6%, and sour cherries 10.6%. Tree fruit is also one of the sub-sectors within Serbian agriculture with constant growth tendency in the past six years.

Fresh and high-quality processed fruits are among those products where Serbia is most likely to be able to compete successfully in international markets and where domestic demand will grow as incomes rise. Serbia is actively seeking EU accession and must increasingly compete in international markets

I. Dynamics/Driving Forces

Key drivers that affect changes in the sub-sector are:

1. External Forces

Global Demand: Global demand for fresh tree fruits worldwide is stronger than ever. Rising consumers' incomes of emerging middle class in countries such as Russia, India and China have boosted demand for fresh tree fruits. Russia is one of the most attractive of the global markets and Europe's fastest-growing consumer economy. This is the world's fifth-largest market for fruit and consumption is expected to continue to grow.

Change in Consumption Pattern: Rising consumer incomes in developing countries have also caused changes in tree fruit consumption patterns. There is a positive qualitative shift in spending and consumption structure. More middle class consumers in developing countries choose high quality tree fruit products, rather than low price. As incomes continue to grow, spending on basic fruit products will decline more.

Climate Changes/Long Droughts, Early Frosts, Heavy Hailstorms: Global warming will change what food is grown in Serbia and where. Negative effects of climate change have already affected fruit growing in Serbia. Long droughts, as experienced in the south and east of the country, had severe and costly effects. Production quantities and quality vary from year to year affecting the market price of tree fruit products. Increase in growing season temperatures emphasized need for greater use of irrigation systems.

Changes in the International Currencies: Weakening of US\$ currency significantly increased purchase prices of food products in “Dollar” countries and decreased purchase prices in Euro countries.

International Trade: (1) Export Market / Trade Policies: Serbia has the Special Trade Agreement (STA) with Russian Federation so that customs duty for imports is only 1% only; therefore major exports of fresh apples and stone fruits can go to Russia more competitively than from other European countries that have higher duties. Multilateral Central European Free Trade Agreement (CEFTA) between countries of ex-Yugoslavia, Albania, and Moldova also provides trade advantages, enhancing export potential. Serbia has signed a Preferential Trade Arrangement with the EU for products having preferential origin status (for fruit products custom duty is 0%). Serbia’s dramatic increase of apple exports in 2001-2007, from 0.78 million US\$ to 23.8 million US\$ was partly caused by the implementation of STA with Russian Federation. (2) Food Price Global Crisis: The price rises (in dollars) are a result of record oil prices, weakening dollar, extreme weather and growing demand from developing countries.

Increasing concern over food safety: Food safety is an increasing concern among retail markets in all over the World, with a growing emphasis on the need for product traceability and GlobalGAP certified produce. Already this season, fruit and vegetable cooperatives from Vojvodina working with USAID Agrobusiness Project failed to close the deal with British retail company ASDA due to their inability to provide GlobalGAP certified fresh products. Exporters have expressed similar pressures from their buyers. Serbian firms need to achieve certification to take advantage of market opportunities for tree fruit stakeholders in Serbia.

2. Internal Forces

Fast Growth of Export Value: Tree fruits are becoming one of the main export products in Serbia. There is increased export of fresh fruits (away from processed) worth 51 million US\$ in 2007. Serbia had a fast growth of export value of fresh tree fruits from 2002 to 2007 with compound annual growth rate (CAGR) of 67%. Apples were leading fresh exports accounting for 47% of the total exported value (\$23.8 out of \$50.3 million), with 182% of CAGR in 2002-2007, followed by plums taking 23% of the total exported value (\$11.5 out of \$50.3 million).

Investments in New Technologies: (1) Storage Technologies/Extending Fruit Shelf Life: During the last two years introduction of new sophisticated technologies in fresh fruit storage, ultra low oxygen (ULO) and controlled atmosphere (CA), has significantly increased in Serbia led by Government investment in the sub-sector. Those who invested in new cold stores have the opportunity to sell fresh fruit during the fruits’ off-season, achieving the highest prices in the market. Major developments in fruit storage known as “Dynamic Controlled Atmosphere (Dynamic CA)” and extension of fruit shelf life such SmartFreshSM Quality System are still waiting to be introduced in Serbia while Europe’s leading producers of fruit are already using these methods.

(2) New Production Technologies/Growing Methods: Due to increased dependence upon weather condition irrigation systems, anti-hail nets and anti frost systems have become a standard for successful tree fruit growing in developed countries, such as Italy and Chile. Introduction of these systems in Serbian fruit growing have increased quantities and quality of fruit produce, but are still

insufficient. There are rare examples of producers using anti-hail nets such as Juzni Banat, and Delta Agrar, but covering only 35 hectares. Higher labor costs, particularly for fruit picking, had an impact on increase of costs of production, forcing producers to use machine harvesters.

Food Retail Market: (1) The Rise of Supermarkets vs. Green Markets: Average domestic fruit consumption is in constant growth. Growth rate of domestic fruit consumption for the period 2000-2005 was 26% (from 43 to 54 kg per capita). Sales growth of fresh fruit at the green markets has slowed in the last years, due to the rapid growth of the retail sector in Serbia, which became a major driving force in the fresh markets sector. (2) Market Concentration of Food Retail Chains: Retailers such as Delta M, Metro, and Mercator, hold the biggest market share, dictating the prices and product quality. But without bigger influence of world leaders in food retail on the Serbian market, there are no local market incentives for local producers to adjust to global market standards.

Fresh Wholesale Market: Distribution /Consolidation Centers vs. Kvantas Markets: Consolidation centers are taking over the role of traditional Kvantas¹ wholesale markets. Increasingly, supermarket chains bypass wholesalers and buy directly from producers. Delta M company has recently established consolidation center for fresh fruit and vegetables, near Smederevo, in support to its Maxi retail chains.

Vertical Integration and Consolidation: The emergence of vertically integrated producer organizations from growing, storing to marketing has been taking place in the recent period. A good example for this process is the Fruitland Association of eight cooperatives formed to increase negotiating power, quality of products, and improve finances. They have installed modern ULO cold stores of over 12,000 tons capacity to increase off-season value-added sales of fresh apples and plums. These investments were led by Government grants to Fruitland cooperatives. The consolidated offer of produce helped them to reduce the costs of logistics and marketing and provide continuity of deliveries to buyers.

Privatization of farming enterprises has sped up the introduction of up-to-date technologies, and the rejuvenation of orchards. Delta Agrar acquired state owned AK "Podunavlje" from Celarevo and invested 8 million US\$ in a 100 ha apple orchard using up-to-date technology from Italian region of South Tyrol. Another example is Industrial Factory - Farm (IFF) "Juzni Banat" bought by Agromarket from Kragujevac. Both companies, Delta and Juzni Banat, are in the process of introducing Global GAP standard and during 2008 harvest season will complete certification.

II. Implications for Serbia

Fresh and high-quality processed fruits are among those products where Serbia is most likely to be able to compete successfully in international markets and where domestic demand will grow as incomes rise. Serbia is actively seeking EU accession and must increasingly compete in international markets. To do so, it must change many of the ways that it is currently producing, handling and exporting fruit, including adopting:

- More advanced growing technologies - Due to the significant impact of climatic factors on fruit production, produced quantities vary from year to year. Serbian producers need to upgrade their production technology.
- Traceability / Certification – Serbia has to meet EU fruit standards by improving quality, food safety, fruit variety, and packaging.
- Shortage of storage capacity to expand sales in the off-season period - Export of fresh fruit is carried out mainly during the fruits' high season because producers usually lack storage

¹ Traditional wholesale green market in Serbia

technologies and experience in storing the fruits. Increased investment in modern storage units is needed.

- Better vertical or horizontal integration of farmers - Small-scale fruit producers are slowly getting out of the business. There are good examples of fruit growers that recognized a need to integrate.
- Improved post-harvest handling practices with modern technology for fresh fruit grading, sorting, and packing.
- Continuous presence in the target foreign markets through consolidated promotion and sales need to be insured. Zero advertising campaigns have been launched to promote Serbian fruit products in export markets.

III. Vision for Growth / Strategy

Referring to the Agribusiness project goals, the main focus of the tree fruit sub-sector will be on the growing export market for fresh apples to Russia and diversifying sales outlets via EU market channels focusing on fresh stone fruits. Only being recognized at the international market as a reliable supplier of high quality fresh tree fruits that consistently meets buyer specifications, will Serbia be able to compete in the global marketplace and steadily increase sales.

A secondary focus will be on immediate export opportunities for value-added products, including retail packs and organics, and dried fruit, fruit preps, juices, concentrates, and purees. The main target markets for value-added will continue to be Serbia's traditional export markets such as EU and neighboring countries and new emerging markets like Russia, Scandinavian countries, and Japan. The project will also support industry efforts for growing sales values going into Serbia supermarket outlets.

Since fresh tree fruit sub sector is distinctive in regard to time needed for expanding production and introducing new varieties, project will focus on existing capacities and resources by improving quality and efficiency of produce, extending the selling season of fresh fruits, supporting consolidation of export promotion and sales, and improving ABDS linkages for tailored assistance packages. The agribusiness project shall further leverage this by assisting in the value-adding process, mainly through packaging, branding and processing of the fresh fruit. The food safety requirements to access EU markets are very high and during initial two years of project life the industry stakeholders will be supported to implement required standards, such as product traceability, GlobalGAP and HACCP. The continuing emergence of new producer organizations, associated with already existing coops and strong marketing companies will also be supported by the project to add to the process of sustainability.

To achieve these goals, the project will strive to develop capacities of human resources for application of the latest technologies and methods in efficient production, post-harvest, cold storage, and, in particular, promotion and sale of Serbian fruit products. Through all those stages of program implementation, the project will use following leverage points to maximize impacts and assure sustainability:

- In the first two years, we will focus our efforts on the Fruitland Association of Cooperatives (eight) and newly emerging integrated farmers groups to enhance quality exports;
- In the first two years, we will focus our efforts on the development of a sector specific association at national level starting with "Fruits of Serbia Association";
- Use international trade fairs in Serbia (Novi Sad, Belgrade) and abroad as leading points of contact around introducing new technologies and marketing links;
- Use private ABDS providers and equipment suppliers to support transfer of new technologies;

- Central consolidation/distribution centers to replace traditional wholesale markets;

Expected results

Increased cumulative exports of tree fruit products for additional 80 million US\$ over the life of the project - 50 million from fresh and 30 million from processed. Increased employment at consolidation centers, cold stores, processing plants, ABDS providers, commercial farms, and new producer organizations.

IV. Goals/Objectives/Activities

Goal 1: Improve the productivity, quality and sustainability of fruit production systems that meet market demand

Objective 1.1: Reduced seasonality and improved year-round availability of fresh fruit at competitive prices

- Activity 1.1.1: Increase cold storage capacity by introducing suppliers and assisting buyers to access funding
- Activity 1.1.2: Improve cold storage inventory, supply management and product traceability through introduction of software to facilitate consolidation of sales (start with Fruitland Association)
- Activity 1.1.3: Train local service providers on fresh fruit storing issues (using service providers from equipment suppliers) to then train producers

Objective 1.2: Built capacity to effectively respond to rising standards in export tree fruits

- Activity 1.2.1: Design Strategy for Standards Certification (July 2008)
- Activity 1.2.2: Raising awareness among producers regarding product traceability and GlobalGAP
- Activity 1.2.3: Developing traceability and GlobalGAP manual as a public shareware available to all stakeholders
- Activity 1.2.4: Financially supporting PO's certification for export as a test case (certify four producer organizations – at least ten growers of each PO)
- Activity 1.2.5: Work close with Ministry of Agriculture (MAFWM) and other relevant institutions to match funds for the training courses, consulting services and standards certification

Objective 1.3: Improved harvest and post harvest management and processing techniques

- Activity 1.3.1: Train service providers to provide capacity building to Fruitland members and the cooperative (paying)
- Activity 1.3.2: Organize study tours to advanced fruit growing operations in Italy and France
- Activity 1.3.3: Support transfer of new technologies to producers (using service providers from equipment suppliers)
- Activity 1.3.4: Organize study tours to overseas processors and equipment providers for value added products
- Activity 1.3.5: Provide technical experts / suppliers from overseas to work with processors on new technologies and develop other new value added products.

Goal 2: Consolidated export promotion and sales for more reliable and competitive supplies

Objective 2.1: Consolidation of export promotion activities

- Activity 2.1.1: Support development of sector specific National Association (start with Fruits of Serbia Association)

- Activity 2.1.2: Provide support to stakeholders in preparation for the exhibition at local and international trade fairs
- Activity 2.1.3: Improving producers marketing communication skills

Objective 2.2: Consolidation of sales

- Activity 2.2.1: Facilitate networking of existing and establishing of new producer organizations (Fruitland and Fruits of Serbia Associations, regional producer organizations)
- Activity 2.2.2: Technical support in set-up of regional consolidation hub centers

Objective 2.3: Improving buyer linkages

- Activity 2.3.1: Organizing and facilitate inward buying missions (SPAR from Slovenia)
- Activity 2.3.2: Organize and co-finance trips to meet specific buyers (ASDA retail in Leeds, UK)
- Activity 2.3.3: Support supply chain development to satisfy buyer identified requirements to conclude sales in new markets (ASDA, SPAR, American Dream Inc.)
- Activity 2.3.4: Provide buyer-seller services to stakeholders-clients / Help clients in negotiations with buyers (Burlat Pro, Fruitland, Atle, Borjana)
- Activity 2.3.5: Facilitate sales trainings for stakeholders to provide market information on buyer and consumer requirements
- Activity 2.3.6: Train exporters on requirements of targeted markets regarding packaging practices and standards, including paletization and labeling (using foreign buyer's representatives) to then train producers

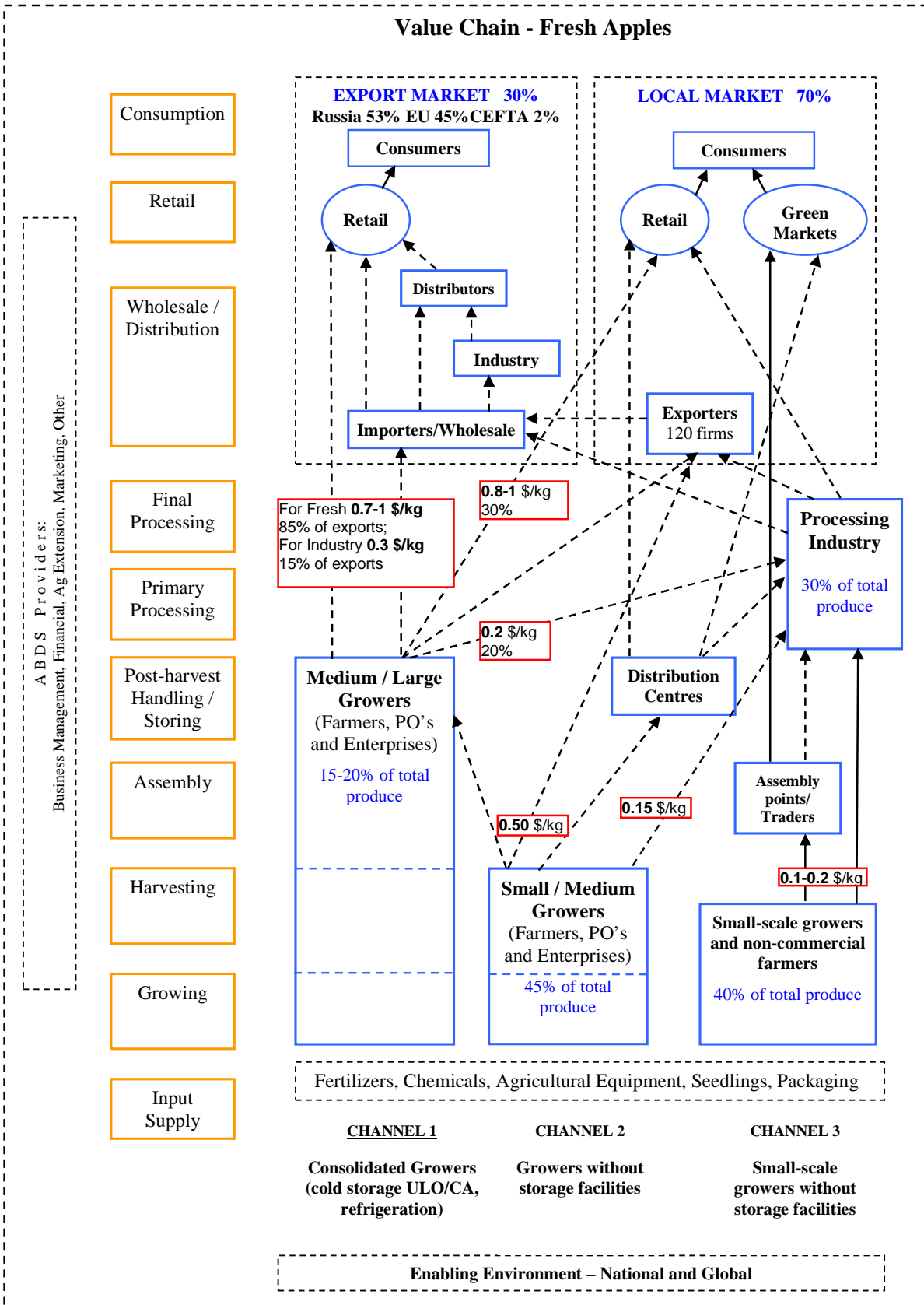
Goal 3: Develop industry-based ABDS, focused on product competitiveness

Objective 1.1: Assist ABDS providers to improve provision of services in support to GlobalGap standard and product traceability (Accreditation Agro-innovation Center's laboratory)

Objective 1.2: Link Foreign Service providers with industry and facilitate involvement in the sub-sector

Objective 1.3: Supporting local production of certified virus-free nursery plants (link local nurseries with international fruit-breeder licensees, training in laws on importation and global procedures on licensed products, royalties).

Figure 1 - Sub-Sector Map for Fresh Tree Fruit Marketing Channels



COMMODITY PLAN CHART

ACTIVITIES	STAKEHOLDERS	TIME TABLE
Reduce seasonality and improve year-round availability of fresh fruit		
Support increase of cold storage capacity	Sector lead, ABDS, Suppliers, STTA, PO's	Year 2-4
Improve cold storage inventory, supply management and product traceability	Sector lead, ABDS, Fruitland, PO's team	Year 1-2
Train service providers on fresh fruit storing issues to then train producers	Sector lead, ABDS, Suppliers, STTA	Year 1,2
Built capacity to effectively respond to rising standards in export tree fruits		
Design Strategy for Standards Certification (July 2008)	Sector lead, Grants Manager, Policy Specialist	Year 1
Raising awareness among producers regarding product traceability and GlobalGAP	ABDS, Fruits of Serbia	Year 1-2
Developing traceability and GlobalGAP manual as a public shareware	ABDS, STTA, Fruits of Serbia	Year 2
Financially supporting PO's certification for export as a test case	Sector lead, Grants Manager, ABDS, PO's team	Year 2-3
Optimize activities & financing opportunities from MAFWM and donors organizations	Governments and EU funds/projects	Year 1-3
Improve harvest and post harvest management and processing techniques		
Train service providers to provide capacity building to Fruitland cooperative members	STTA, ABDS,	Year 1-2
Organize study tours to advanced fruit growing operations in Italy and France	Sector lead, ABDS, PO's	Year 2-3
Support transfer of new technologies to producers (using equipment suppliers)	Sector lead, ABDS	Year 2-3
Organize study tours to overseas processors and equipment providers for value-added	Sector lead, ABDS	Year 2-4
Link processors with technical experts/suppliers of new technologies and value added	Sector lead, ABDS, STTA,	Year 2-4
Consolidation of export promotion activities		
Support development of sector specific National Association	PO's team, Fruitland Association, STTA	Year 1-3
Support to stakeholders in preparation for the exhibition at trade fairs	Marketing team, ABDS, Sector lead,	Year 1-5
Improving producers marketing communication skills	Marketing team, ABDS, STTA, Sector lead	Year 1-5
Consolidation of sales		
Facilitate networking of existing and establishing of new producer organizations	PO's team, Sector lead	Year 1-5
Technical support in set-up of regional consolidation hub centers	Sector lead, ABDS, Suppliers, STTA	Year 2-4
Improving buyer linkages		
Organizing and facilitate inward buying missions	Sector lead, Marketing team, Buyers	Year 1-5
Organize and co-finance trips to meet specific buyers	Sector lead, Marketing team, Growers, Exporters	Year 1-5
Support supply chain development to conclude sales in new markets	Sector lead, ABDS, STTA, Exporters	Year 1-5
Provide buyer-seller services / Help clients in negotiations with buyers	Sector lead, Marketing team,	Year 1-5
Training programs to provide market information on buyer and consumer requirements	Sector lead, ABDS, STTA, Marketing team	Year 1-5
Develop industry-based ABDS, focused on product competitiveness		
Identify local ABDS providers-individual or businesses	Sector lead	Year 1-3
Assist ABDS providers to improve services in support to standards implementation	Sector lead, STTA, ABDS	Year 1-3

Link foreign ABDS providers with industry and facilitate involvement in the sub-sector	Sector lead, ABDS	Year 2-4
Supporting domestic production of certified virus-free nursery plants	Sector lead, ABDS STTA,	Year 2-4