“INFRASTRUCTURE INVESTMENT STRATEGIES FOR INCREASED AGRO-INDUSTRIAL OUTPUTS IN KOSOVO”

Capstone Project Report

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Submitted as a Capstone Project Report in partial fulfillment of a Master of Science Degree in Professional Studies with Service Management, Project Management, and Infrastructure Development concentration at Rochester Institute of Technology, NY

Submitted by: Siti INSIANA

August, 2010
Acknowledgments

I am heartily thankful to my capstone project adviser, Prof. Brian H. Bowen Ph. D, whose encouragement, guidance and support from the initial to the final stage enabled me to carry out and complete this capstone project. I owe my deepest gratitude to my project consultants, Prof. Thomas E. Traub, PE, C.P.M., LSSBB and Prof. Mentor Thaqi, Ph.D, for the valuable advice and support they have given me from the beginning to the completion of this capstone project. I am sincerely grateful to Mr. Besnik Krasniqi, Ph.D, of Business Support Center Kosovo (BSCK), the Statistical Office Kosovo (SOK), the Ministry of Agriculture Forestry and Rural Development of Kosovo (MAFRD), for their support and assistance. I would also like to thank: DR. James Myers, instructor for “Natural Resource and Infrastructure Development” class; Prof. Stanley Bissell, instructor for “Human Capital Strategies” class; Prof. Richard Morales Ph.D, instructor for “Breakthrough Thinking Innovation and Creativity” class; DR. Bonaly Nelsen, instructor for “Service Performance Measurement” class; Prof. Thomas E. Traub, PE, C.P.M., LSSBB, instructor for “Advanced Project Management” class; Prof. Gregory Van Laeken, instructor for “International Project Finance” class; and Prof. Thomas Maiers, Ph.D, instructor for “Service Leadership: Examining and Implementing Change” class, whose very inspiring lectures have contributed tremendously to the successful completion of this capstone project. My deepest thanks go to my father in-law, Dipl.-Ing Volkert Buse, for supporting and providing me with relevant literatures, and my beloved husband, for his love, patience, understanding and support. Last but not least, I would also like to extend my sincere acknowledgments to all those who have made the accomplishment of this capstone project possible.

Any possible shortcomings in this report are my own responsibility.
# Abbreviations and Acronyms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>ARDP</td>
<td>Agriculture and Rural Development Plan</td>
</tr>
<tr>
<td>ATP</td>
<td>Autonomous Trade Preference</td>
</tr>
<tr>
<td>AMPK</td>
<td>Agriculture Master Plan for Kosovo</td>
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<tr>
<td>BSCK</td>
<td>Business Support Centre Kosovo</td>
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<tr>
<td>CEFTA</td>
<td>Central European Free Trade Agreements</td>
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<tr>
<td>ECIKS</td>
<td>Economic Initiative for Kosovo</td>
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<tr>
<td>FTA</td>
<td>Free Trade Agreements</td>
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<tr>
<td>HFC</td>
<td>Household Final Consumption</td>
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<tr>
<td>HACCP</td>
<td>Hazard Analysis Critical Control Points</td>
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<td>ISO</td>
<td>International Organization for Standardization</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>GMP</td>
<td>Good Manufacturing Practice</td>
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<tr>
<td>GAP</td>
<td>Good Agriculture Practice</td>
</tr>
<tr>
<td>KCBS</td>
<td>Kosovo Cluster Business Support</td>
</tr>
<tr>
<td>MAFRD</td>
<td>Ministry of Agriculture Forestry and Rural Development</td>
</tr>
<tr>
<td>NGO</td>
<td>Non Governmental Organization</td>
</tr>
<tr>
<td>SFRY</td>
<td>Serbia Former Republic of Yugoslavia</td>
</tr>
<tr>
<td>SMEs</td>
<td>Small Medium Enterprises</td>
</tr>
<tr>
<td>SOK</td>
<td>Statistical Office Kosovo</td>
</tr>
<tr>
<td>SWOT</td>
<td>Strengths, Weaknesses, Opportunities and Threats</td>
</tr>
<tr>
<td>UNMIK</td>
<td>United Nations Interim Administration Mission in Kosovo</td>
</tr>
<tr>
<td>USAID</td>
<td>United State Agency for International Development</td>
</tr>
<tr>
<td>VAT</td>
<td>Value Added Tax</td>
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</tbody>
</table>
Table of Contents

1. Introduction ..............................................................................................................9
2. Agriculture Sector in the Kosovo Economy ..........................................................12
   2.1 Major agriculture production of Kosovo ..........................................................12
   2.2 Government policy and legal framework for the agro-food sector ..........13
       2.2.1 Legal framework .........................................................................................13
       2.2.2 Agricultural policy and the Agriculture and Rural Development Plan (ARDP) for Kosovo .................................................................14
       2.2.3 Kosovo sectoral public spending .................................................................15
       2.2.4 Food safety regulation (food, veterinary and phyto-sanitary) ..........17
3. Agriculture and Food Trade in the Region ............................................................17
   3.1 Contribution of agriculture sector to GDP .....................................................17
   3.2 Kosovo’s trade in agro-food within the region ...............................................18
   3.3 Projection of domestic agro-food demand (2012-2020) ..............................20
   3.4 Domestic supply-demand and potential for import substitution ..........22
4. Current Situation of Kosovo’s Agro-food Industry ...........................................23
   4.1 Dairy processing industry ..............................................................................24
   4.2 Fruit processing industry ................................................................................25
   4.3 Vegetable processing industry .......................................................................26
   4.4 Meat processing industry ..............................................................................27
5. Competitiveness of Kosovo Agro-food Industry ............................................28
   5.1 SWOT analysis ..................................................................................................30
5.2 Growth opportunities for agro-food processing industry in Kosovo .... 30
6. Lesson Learnt on Best Practices................................................................. 32
7. Infrastructure Investment Strategies for Agro-food Industry in Kosovo 33
    7.1 Charting strategic priorities................................................................. 33
    7.2 Discussion on critical issues to increase the sector’s outputs .......... 36
    7.3 The Way forward - Critical issues to enhance competitiveness .... 37
    7.3.1 Food safety and quality standards.................................................. 37
    7.3.2 Sector’s limitations and capacity gaps......................................... 38
    7.3.3 Marketing strategies – Adopt Best Practices ............................... 39
8. Summary Recommendations to the Public and the Private Sector ..... 41
9. Conclusion and Recommendations ......................................................... 43
10. References ............................................................................................. 45

List of Charts, Figures and Tables:
1. Chart 1.1: Capstone project’s scope................................................................. 9
2. Chart 7.1: Infrastructure investment strategic priorities for Kosovo’s agro-food processing industry................................................................. 35
3. Figure 1.1: Proportion of land-use classes contributing to Kosovo’s agricultural land... 11
4. Figure 1.2: Level of unemployment in Kosovo (2001-2008)................................. 12
5. Figure 2.1: Sectoral public spending in Kosovo 2009-2013............................... 15
6. Figure 3.1: Share of agriculture to GDP in selected countries in the region, and EU-25).................................................................................................................. 18
7. Figure 3.2: Agricultural export, import, and trade balance by country in 2008...... 18
8. Figure 3.3: Kosovo’s Agro-food Imports by country in 2007.............................. 19
9. Figure 3.4: Projection of domestic demand for major commodities (2012 – 2020)...........21
10. Figure 4.1: Share of agro-food import in percentage of total national imports in 2008 23
11. Figure 5.1: Growth of agro-food exports of Kosovo by commodity group .................31
12. Figure 7.1: Study on Kosovo consumers’ buying preferences for food products..........36
13. Table 2.1: A Comparative Analysis of Budget for Common Agriculture Policy (CAP) - SPS 2007-2013 in the EU Member States in comparison with the analogue agriculture subsidy provided in Kosovo..................................................................................................................16
14. Table 3.2: Kosovo per capita consumption of major commodities and agricultural products (2007)........................................................................................................................................20
15. Table 3.3: Projection of domestic demand of major commodities (2012 – 2020)........20
16. Table 3.4: Estimates of supply-demand, import increased, and potential for import substitution for major agro-food commodities .........................................................22
17. Table 4.1: Price of milk (at farm’s gate) in Kosovo as compared to some other countries ........................................................................................................................................25
18. Table: 5.1 SWOT Analysis for Kosovo agro-food processing industry.........................30
Executive Summary

Agriculture is an important sector in Kosovo’s economy. With more than 55% of Kosovo’s population living in rural areas, agro-food industry is very crucial for creating employment and income opportunities. However, currently Kosovo is not self-sufficient in food production and relies heavily on imports. This capstone project looks into the challenges and potentials of the agro-food processing industry in Kosovo. It gathered data and feedback by interviewing business practitioners in the sector, Business Support Centre Kosovo (BSCK), Kosovo’s Ministry of Agriculture Forestry and Rural Development (MAFRD), relevant associations, and evaluated relevant projects carried out from 2002-2009.

At present, the Agriculture and agro-food processing industry in Kosovo is facing huge challenges. Domestically processed agro-food products currently only gain a market share of about 25%, whereas the analogue imported products enjoy a market share of about 75% in Kosovo domestic market. Kosovo’s imports of food and agriculture products make up about 24% of total national import in 2008. Various factors have been contributing to the current situation and the lack of competitiveness of the sector. In light of these huge challenges, however, currently only around 1.2 percent¹ of Kosovo’s sectoral public spending, a less than 0.01 percent of its national GDP is committed to agriculture. The current Kosovo’s policy on its agriculture sector has surely also contributed among others to the challenge of high costs for inputs for the agro-food processing industry.

Kosovo consumers place product attributes such as food quality and safety, and taste, as highly important in their purchase decision-making. Infrastructure (physical as well as institutional infrastructure) plays an important role in enhancing competitiveness. Enhancing competitiveness of Kosovo’s agro-food processing sector will have to take into account the above issues and capacity gaps and limitations that the sector is currently facing.

In light of the above, the Government of Kosovo will need to focus on identifying the most cost-effective investment strategies to strengthen the competitiveness of domestically produced agro-

food products. The Government of Kosovo (public sector) may need to establish “a special task-force” in charge of competition, and to establish an Agriculture and Agro-food Marketing Agency of Kosovo promoting domestic products under a brand name such as “Kosovo’s Best”. In terms of physical infrastructure, support is most needed in the following areas, in order of importance: laboratory testing facilities, collection centers for inputs for the agro-food processing industry (such as for milk and for the small fruits in particular), high capacity freezing facilities, cold room facilities, and cool truck transportation. These should be made available to the small scale producers for a reasonable fee for the usage of the facilities.
1. Introduction

More than 55 percent of Kosovo’s population living in rural areas, however, Kosovo has not been able to meet its domestic demand for food, and is still heavily dependent on imports. This capstone project looks into the challenges and potentials of the agro-food processing industry in Kosovo. This capstone project does not look into the agriculture production process (growing and harvesting). It aims to identify and formulate recommendations in regard to infrastructure support requirements during “storage, processing, and marketing (retail and commercial) for the sector to grow and be competitive. Kosovo is a young country with young population recently having emerged from civil conflict, and the agro-processing industry could significantly alleviate the challenges of endemic youth unemployment.

Chart 1.1: Capstone project’s scope

As part of the analysis, this capstone project evaluates the current situation of the industry and the projections of domestic demand growth of selected commodities for 2012-2020, allowing an identification of most promising commodities of Kosovo. It presents SWOT analysis of the sector, the prevailing impediments to growth, as well as lesson learnt and best practices from the wider region and elsewhere. On that basis, it attempts to identify the needs for infrastructural support for the identified most promising commodities in particular and for the agro processing sector in general. Concluding, it subsequently proposes recommendations for infrastructure investment strategies to the Government of Kosovo.

The project gathered data and feedback by evaluating projects on agriculture and other relevant projects carried out in Kosovo from 2002-2009 and by interviewing: business practitioners in the sector, the Business Support Centre Kosovo (BSCK), Kosovo’s Ministry of Agriculture Forestry and Rural Development (MAFRD), Government officials, foods distributors & supermarkets, Non Governmental Organizations (NGOs) working in the related fields, and relevant associations.
The information on agro processing best practices (Slovenia, Croatia, and Malaysia) has largely been obtained through a web-based comparative study. This regional perspective and from elsewhere have contributed valuable additional information for the identification of infrastructural support requirements and for the formulation of infrastructure investment strategy recommendations.

The Republic of Kosovo is situated in the heart of South East Europe. It has a total surface of 1.1 million ha and a total population of about 2.2 million inhabitants. It borders with Albania and Montenegro in the west, with Serbia in the north, Bulgaria in the east, the Former Yugoslavia Republic of Macedonia in the south. Kosovo is a young country with young population recently having emerged from civil conflict. After around eight years the peace was restored by the presence of international community under the United Nations Interim Administration Mission in Kosovo (UNMIK), Kosovo declared its independence from the former SFRY /Serbia on 17 February 2008. Its political system is a parliamentary democracy, with established institutions of legislative (parliament), executive (government) and judicial authority (judicial system).

![Image of Europe with Kosovo highlighted]

Ethnic groups: 90 % ethnic Albanian, 6 % ethnic Serb, 2 % Bosniaks, Gorani, 1.5 % Roma, Ashkali, Egyptians, 1 % Turks. Languages: Albanian and Serbian (official), Turkish (official only in municipality of Prizren), Roma, Bosniak, English. The largest city, Pristina – est. population is 500,000 inhabitants, and more than 55 % of its population living in rural areas. Kosovo’s official currency is EURO (€). Kosovo budget in 2009 was amount at € 1.43 billion. Its GDP in 2008 was est. € 3.8 billion. GDP per capita in 2007 was estimated at € 1,573. The average gross wage in Kosovo is € 230 in 2009. Kosovo receives relatively significant remittances from its Diasporas estimated around € 800 million annually (in 2009).

Kosovo has a liberal trade regime, and currently enjoys free trade within Central European Free Trade Agreement – CEFTA as well as with EU Autonomous Trade Preference (ATP), enabling its products to access the Balkan, Central Europe, and EU markets. Industries currently taking place
are: mineral mining, energy, telecommunication, forestry, agriculture, metal processing, construction materials, base metal, leather, machinery, appliances (source: ECIKS). Kosovo has huge reserves of various high value natural resources such as: Nickel, lead, magnesium, zinc, lignite, kaolin, chrome, bauxite. Besides, it is endowed with a significant amount of arable and fertile land as well as a temperate climate that is suitable for agricultural production of high-value commodities\(^2\), such as fruits, nuts, vegetable, and livestock.

**Figure 1.1: Proportion of land-use classes contributing to Kosovo’s agricultural land**

![](image)

*Source: Statistical Office Kosovo (2008b)*

Of Kosovo total surface area of 1.1 million ha, around 53 % are considered to be agricultural land, whereas 41 % are forest and 6 % belong to other land uses (Statistical Office Kosovo 2008c). Most of the agricultural land (59 %) is being used as arable land as shown in figure 1.1 above.

One of the greatest problems facing Kosovo today is the high unemployment rate. According to the Statistical Office Kosovo (SOK), the unemployment rate of Kosovo in 2008 was 47.5 % as showed in figure 1.2 bellow.

Tracking back to the period when Kosovo was still part of former Yugoslavia, the province had been plagued with high unemployment compared to the rest of the country. According to Radio Free Europe Research\(^3\), there were two reasons for the high level of unemployment in Kosovo.

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\(^2\) The information was obtained from ARCOTRASS – Consortium: “Study on the State of Agriculture in Five Applicant Countries: report on Kosovo”, Dec 2006.

\(^3\) RAD (former Yugoslavia) Background Report/133 by Luis Zanga published on 26 July 1984.
First was ‘bureaucratic, and centralist deviation’ in the political life in Kosovo, that limited state investment in the province/Kosovo. Second, the ill-advised economic development policy that concentrated on mineral exploitation to the detriment of the processing industry, an industry that is known to provide more employment.

Agriculture has historically been an important sector in Kosovo’s economy. During difficult times after the war in 1999 when most of other economic activities in the country collapsed, the sector contributed about 25% to 30% of the total national GDP. In recent years, the sector contributes about 20 % to Kosovo’s the total Gross Domestic Product (GDP) as presented in chapter 2. The sector contribution to total employment was estimated at 20.41 % of the total working population (in 2006). Given the majority (55%) of Kosovo population is concentrated in rural areas, agriculture remains an important avenue for poverty mitigation and employment generation.

Kosovo is a young country with young population. Over 60 % of the population is under 25 years old. Kosovo’s labor force is also among the most competitive in the region. This growing youth population if it is combined with education and training (Human Capital Development) will be an important asset for economic resource for the country’s future development and competitiveness.

2. Agriculture Sector in the Kosovo Economy
2.1 Major agriculture production of Kosovo

During the first phase of reconstruction of Kosovo after the war, many donors have given support to the revitalization of agriculture sector mainly based on grants (milk cows, machinery, building of garden plants, etc). Now agriculture has entered the second phase of development which focuses
on establishment of more favorable policy-making for agriculture, transference of new technologies of farming and, reorienting farmers from subsistence to commercial production⁴.

Kosovo’s major agriculture production includes: cereals and fodder crops; fruit crop such as apple, plum, strawberry, blackberry, blueberry, cherry, pear, wine grape, and table grape; vegetable crop such as potato, tomato, pepper, pumpkin, cucumber, water melon, cabbage, union, garlic; and livestock such as cattle, sheep, pig and chicken.

There has been an increasing trend of livestock production in the last decade. The livestock production has increased about 8 %. Cattle and sheep production in Kosovo have a long tradition and are supported by favorable natural conditions (the flocks are raised in ecologically clean zones, and the pastures takes up about half of the agricultural land.

Kosovo’s GDP during the period from 2004 to 2007 increased from 3,006 to 3,433 million Euros. GDP per capita followed the same trend, from 1,473 € in 2004 to 1,612 € in 2007. The major component of GDP is the Household Final Consumption (HFC), which increased from 2,539 million euro in 2004 to 3,248 million Euro in 2007 (Gross Domestic Product 2004 – 2007). The total volume of food consumption by a household is an average of 154 €/month in 2005. The main items in terms of expenditure are bread and cereals (23%), meat (17%), vegetable (13%), milk cheese and eggs (11%). Potato per capita consumption is also considerable at 80 kg/year.

2.2 Government policy and legal framework for the agro-food sector

2.2.1 Legal framework

Agriculture and agro-food industry in Kosovo are established through a package of laws that are generally in line with those of the EU. In the agriculture and agro-food industry commercial sphere, there are the regulation on Foreign Investment, Business Organizations, and Contract for the Sale of Goods, Pledges, Insurance Regulation and Supervision, Payment Transactions, Essential Labor Law, and Standard for Financial Reporting. Further information on legal framework in the agriculture and agro-food industry is listed as follows:

- Law on Food (2009/03-L – 016)

⁴ The information was obtained from RIINVEST Institute for Development Research project report in June 2004, the project was supported by USAID.
2.2.2 Agricultural policy and the Agriculture and Rural Development Plan (ARDP) for Kosovo

With more than 55% of the population living in rural areas, the sector should have been the backbone of the economy and able to provide employment and food security for significant segments of the population. In recognition of these facts, already in 2003, the Ministry of Agriculture, Forestry and Rural Development (MAFRD) published a “Green Book” which elaborated an overall strategy for sustainable agricultural and rural development. The Kosovo Development Plan and Strategy 2007-2013 reemphasizes the Agricultural and Rural Development Plan (ARDP), aims at harmonizing MAFRD policies with the EU Acquis Communautaire and sets out the following objectives:

- Achieving additional income for farmers and rural dwellers, leading to improved living standards and working condition in rural areas
- Improving competitiveness and efficiency of primary and processed of agriculture production, in order to increase imports substitution and access export markets
- Improving on-farm/in factory quality and hygiene standards
- Improving sustainable rural development and improve quality of life (including infrastructure) through promotion of farming and other economic activities that are in harmony with environment
- Creating employment opportunity in the rural areas
- Improve planning and management and use of agriculture and forestry land, as well as the environment
- Harmonize legislation with the Acquis Communautaire and EU standards
The ARDP is aligned with the EU overall rural development strategy for 2007-2013, which is based around four axes, namely (1) Competitiveness; (2) Environment and improved land use; (3) Rural diversification and quality of rural life; and (4) Community based rural development strategies.

2.2.3 **Kosovo sectoral public spending**

However, only around 1.2 percent⁵ of Kosovo’s sectoral public spending, a less than 1.01 percent of its national GDP is committed to agriculture, an increase of only 0.6 percent from 2002 (figure 2.1).

**Figure 2.1: Sectoral Public Spending in Kosovo 2009-2013**


Balkan Insight.com, on 22 January, 2009 reported in its article titled “Agriculture a Priority in 09 – Kosovo” that Kosovo has created five-years plan to develop its suffering agriculture, pledging more money and development aid for the sector. The report stated that the Government of Kosovo had increased the Minister of Agriculture’s budget for 2009 by € 40 million. The 2009 agricultural budget has been broken-down to the following sectors: € 8 million will go to revamp the irrigation system, €2.7 million in farming subsidies and € 660,000 for the consolidation of the farm land. The rest of the budget will be allocated to increase farming return, improve the education of the agriculture

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workers, replace import with domestic products, increase exports, protect public health and replant trees.

Table 2.1: A Comparative analysis of Budget for Common Agriculture Policy (CAP) - SPS\(^6\)

2007-2013 in the EU Member States in Comparison with the analogue agriculture subsidy provided in Kosovo

<table>
<thead>
<tr>
<th>Country</th>
<th>Budget SPS (million €)</th>
<th>GDP in 2008 (million €)</th>
<th>Farming Subsidies in % of Its GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>KOSOVO</td>
<td>2.7</td>
<td>3800</td>
<td>0.07 %</td>
</tr>
<tr>
<td>Austria</td>
<td>5205.0</td>
<td>312,000</td>
<td>1.67 %</td>
</tr>
<tr>
<td>Denmark</td>
<td>7201.0</td>
<td>255,750</td>
<td>2.82 %</td>
</tr>
<tr>
<td>Germany</td>
<td>40307.0</td>
<td>2,757,500</td>
<td>1.47 %</td>
</tr>
<tr>
<td>Greece</td>
<td>14480.0</td>
<td>266,258</td>
<td>5.44 %</td>
</tr>
<tr>
<td>Poland</td>
<td>15039.0</td>
<td>396,000</td>
<td>3.80 %</td>
</tr>
<tr>
<td>Hungary</td>
<td>6093.0</td>
<td>116,250</td>
<td>5.24 %</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>2489.0</td>
<td>37,500</td>
<td>6.64 %</td>
</tr>
<tr>
<td>Slovenia</td>
<td>712.0</td>
<td>41,250</td>
<td>1.73 %</td>
</tr>
</tbody>
</table>


While in the mean time, the neighboring countries producers benefit from government subsidies for the agricultural products and production inputs, and the EU Member States provide very high subsidies to their agriculture sector through Common Agriculture Policy (CAP) which channeled through the so called “Single Payment Scheme” (SPS) as presented above (table 2.1), the current Kosovo’s policy on its agriculture sector has surely also contributed among others to the challenge of high costs for inputs for the agro-food processing industry. A lot still needs to be done by the public sector as well as the private sector to translate the stated objectives into workable policies. As shall be explained, Kosovo’s agro-food sector’s competitiveness still lags behind that of its regional and European competitors. In light of limited budgetary resources of Kosovo, the Green Book recommended “not to attempt to compete with regional and European countries in subsidizing agriculture”, but to focus on fiscally neutral policies of support”. In its attempts to

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\(^6\) Single Payment Scheme (SPS) is the principle agriculture subsidy scheme in the EU. Under the scheme, farmers have greater freedom to farm to the demand of the market as subsidies are no longer linked to production, and environmentally friendly farming practices (known as Cross Compliance) are better acknowledged and rewarded.
support the industry, the Government of Kosovo introduced incentives for agriculture in the form of
duty free entry of agricultural inputs and machinery in June 2004. In September 2004, VAT on these
inputs was also abolished. Prior to this, imports of agricultural inputs were subject to the standard
duty and VAT of 10% and 15% respectively.

2.2.4 Food safety regulation (food, veterinary and phyto-sanitary)

Very recently, Kosovo Government passed Food Law (April 2009) which provided the basis for the
fundamental reforms in the area of food safety and food control. Before, the responsibility of the
food control system in Kosovo was divided between MAFRD and the Ministry of Health. Inspection
services were divided between several agencies, general veterinary inspections are handled both on
the central and municipal level. Border veterinary phytosanitary and sanitary inspections fall within
the authority of the Kosovo Veterinary and Food Agency within MAFRD while the Ministry of Health
also operates its own sanitary inspection service. Laboratories are operated by the Veterinary and
Agricultural Institute under MAFRD and by the Institute of Public Health under the Ministry of
Health.

The new Food Law establishes the Food and Veterinary Agency as an Executive Agency within the
Prime Minister’s Office, responsible for food control on all stages and at all levels. It is divided into
support of official inspection services (Sanitary, Veterinary, and Phitosanitary) and to business
operators. In light of standardized inspection procedures, the guidelines, checklist, and protocols
are currently being drafted based on the newly draft of hygienic package.

3. Agriculture and Food Trade in the Region
3.1 Contribution of agriculture sector to GDP

In most of the countries in the region, agriculture represents a sizeable share of GDP. In Kosovo, this
percentage is among the highest, amounting to roughly 20%. However, the high share of agriculture
sector to the national GDP was more of a result of decline in economic activities of other sectors of
the economy than of its efficiency and competitiveness.
Despite this relative importance of agriculture, however, all countries with the exception of Serbia are net importers of food. Agro-food deficits range from € 141 million in FYR Macedonia to more than € 1.1 billion in Bosnia and Herzegovina.

The agro-food trade deficits of all countries in the region amount to nearly € 3 billion (in 2008) as presented above (figure 3.2).

### 3.2 Kosovo’s trade in agro-food within the region

Kosovo has experienced transition characterized by the process of privatization, structural reforms and adaptation of a market oriented economic system. It now faces the new challenge of increasing its competitiveness in domestic market as well as in the regional markets. Kosovo has established Free Trade Agreements (FTA) between the countries in the region. The FTA with trade liberalization...
objective means free movement of goods and more. The liberalization is immediate for the products with evident competitive advantage towards imports.

Imports have generally grown from year to year, although some domestic products have slightly increased their market share during the same period. Kosovo currently continue to import food about 75% of its domestic demand. The increase in imports has increased the agro-food trade deficit which reached approximately 435.322 million in 2009, compared to 293.200 million in 2004.

Figure 3.3: Kosovo’s Agro-food Imports by country in 2007 (in percentage and in million €)

Both for exports as well as for imports, Kosovo’s trading partners in agricultural and agro-food products mostly come from within the region. 70% of Kosovo’s agro food exports go to Western Balkan countries\(^7\), 16% to EU-27\(^8\) countries, and 13% to EU-15 countries (Austria, Germany, Greece, and Italy). For the agro-food products the ratio imports over exports is 22 : 1 “In favor” of imports, taking into accounts that about 55% of the population live in rural areas and somewhat engage in agricultural sector.

Western Balkan countries are also the main source for Kosovo’s imports, amounting to 168.4 million € in 2007. EU-27 countries supplied 115.4 million €, and EU-15 countries 58.0 million €. As

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\(^7\) Western Balkan Countries consist of: Albania, FYRO Macedonia, Serbia, Bosnia and Herzegovina, and Croatia.

\(^8\) EU-27 Countries consist of: Slovenia, Hungary, and Bulgaria.
presented above (Figure 3.3), imports from “other countries” contribute to 33%, where no detailed data were available.

3.3 Projection of domestic agro-food demand (2012-2020)

The approach to the projection of future domestic agro-food demand in Kosovo is an extrapolation of current data and future trends such as population growth and GDP per capita growth trends.

Table 3.2: Kosovo per capita consumption of major commodities and agricultural products (2007)

<table>
<thead>
<tr>
<th>Items:</th>
<th>Kg (liters)/head/year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potato</td>
<td>80.0</td>
</tr>
<tr>
<td>Wheat</td>
<td>140.0</td>
</tr>
<tr>
<td>Fruits</td>
<td>20.0</td>
</tr>
<tr>
<td>Processed fruits</td>
<td>6.0</td>
</tr>
<tr>
<td>Fresh vegetables</td>
<td>140.0</td>
</tr>
<tr>
<td>Processed vegetables</td>
<td>16.2</td>
</tr>
<tr>
<td>Meat (total)</td>
<td>49.6</td>
</tr>
<tr>
<td>Processed meat (total)</td>
<td>9.4</td>
</tr>
<tr>
<td>Poultry meat</td>
<td>15.0</td>
</tr>
<tr>
<td>Beef meat</td>
<td>22.7</td>
</tr>
<tr>
<td>Sheep meat</td>
<td>1.8</td>
</tr>
<tr>
<td>Pig meat</td>
<td>0.7</td>
</tr>
<tr>
<td>Milk</td>
<td>170.0</td>
</tr>
<tr>
<td>Butter/margarine</td>
<td>4.0</td>
</tr>
<tr>
<td>Cheese</td>
<td>20.0</td>
</tr>
<tr>
<td>Yogurt</td>
<td>108.0</td>
</tr>
</tbody>
</table>

Sources: MAFRD / AMPK working groups & Statistical Office Kosovo (SOK) Standard of Living Statistics


Table 3.3: Projection of domestic demand of major commodities in 1000 tons (2012 – 2020)

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2009</th>
<th>* 2012</th>
<th>* 2015</th>
<th>* 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yogurt</td>
<td>205</td>
<td>237</td>
<td>270</td>
<td>291</td>
<td>320</td>
<td>350</td>
</tr>
</tbody>
</table>

\(^9\) Table 3 is an extrapolation based on the current data on Kosovo per capita consumption of main commodities and agricultural product (2007) adjusted to population growth, GDP per capita growth, and related trends which have impacts consumption patterns.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total milk (UHT, flavored, etc.)</td>
<td>352</td>
<td>373</td>
<td>391</td>
<td>420</td>
<td>457</td>
<td>490</td>
</tr>
<tr>
<td>Margarine/Butter</td>
<td>6</td>
<td>9</td>
<td>9</td>
<td>10</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>Cheese</td>
<td>40</td>
<td>44</td>
<td>46</td>
<td>49</td>
<td>53</td>
<td>60</td>
</tr>
<tr>
<td>Crème and others</td>
<td>16</td>
<td>26</td>
<td>27</td>
<td>30</td>
<td>36</td>
<td>40</td>
</tr>
<tr>
<td>Convenience food</td>
<td>16</td>
<td>15</td>
<td>20</td>
<td>35</td>
<td>45</td>
<td>62</td>
</tr>
<tr>
<td>Processed meat (beef, poultry meat)</td>
<td>17</td>
<td>21</td>
<td>26</td>
<td>31</td>
<td>38</td>
<td>52</td>
</tr>
<tr>
<td>Frozen vegetable</td>
<td>30</td>
<td>36</td>
<td>42</td>
<td>45</td>
<td>49</td>
<td>65</td>
</tr>
<tr>
<td>Processed vegetable</td>
<td>34</td>
<td>36</td>
<td>43</td>
<td>48</td>
<td>57</td>
<td>70</td>
</tr>
<tr>
<td>Fresh fruits and vegetables</td>
<td>336</td>
<td>352</td>
<td>371</td>
<td>398</td>
<td>440</td>
<td>478</td>
</tr>
<tr>
<td>Fresh meat (Beef)</td>
<td>44</td>
<td>50</td>
<td>51</td>
<td>58</td>
<td>63</td>
<td>74</td>
</tr>
<tr>
<td>Processed fruit (jam, etc.)</td>
<td>10</td>
<td>13</td>
<td>16</td>
<td>20</td>
<td>24</td>
<td>27</td>
</tr>
</tbody>
</table>

Source: Author’s own projections based on the current data and growth trends such as: per capita income and population growth trends

The data in the table: 3.3 above is extrapolated based on the current data on Kosovo per capita consumption of main commodities and agricultural product (2007), adjusted to the population growth, GDP per capita growth, and related trends which have impacts on consumption patterns.

**Figure 3.4: Projection of domestic demand for major commodities in 1000 tons (2012 – 2020)**

![Projection of demand (2012 - 2020)](image_url)

Source: Author’s own projections based on the current data, growth trends of per capita income and population growth trends
### 3.4 Domestic supply-demand and potential for import substitution

Table 3.4: Estimates of supply-demand, import increased, and potential for import substitution for major agro-food commodities

<table>
<thead>
<tr>
<th>Domestic Supply (DS)</th>
<th>Demand (D)</th>
<th>Import (I)</th>
<th>DS</th>
<th>D</th>
<th>I</th>
<th>Change of import 2006 / 2009 in %</th>
<th>Potential for Import Substitution = <em>Share of imported products in the domestic market (2009)</em></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(ton)</td>
<td>(ton)</td>
<td>1000 €</td>
<td>(ton)</td>
<td>(ton)</td>
<td>1000 €</td>
<td>(ton)</td>
</tr>
<tr>
<td>UHT milk</td>
<td>34,200</td>
<td>98,621</td>
<td>8,706</td>
<td>34,200</td>
<td>116,024</td>
<td>11,719</td>
<td>34,800</td>
</tr>
<tr>
<td>Cheese (yellow aged &amp; white cheese)</td>
<td>NA</td>
<td>40,000</td>
<td>3,100</td>
<td>22,218</td>
<td>44,000</td>
<td>6,130</td>
<td>NA</td>
</tr>
<tr>
<td>Yogurt</td>
<td>NA</td>
<td>205,800</td>
<td>1,571</td>
<td>NA</td>
<td>237,600</td>
<td>2,302</td>
<td>NA</td>
</tr>
<tr>
<td>Margarine/Butter</td>
<td>NA</td>
<td>6,300</td>
<td>444</td>
<td>NA</td>
<td>8,800</td>
<td>1,511</td>
<td>NA</td>
</tr>
<tr>
<td>Crème and others</td>
<td>NA</td>
<td>16,000</td>
<td>4,655</td>
<td>NA</td>
<td>26,400</td>
<td>6,696</td>
<td>NA</td>
</tr>
<tr>
<td>Total dairy products</td>
<td>-</td>
<td>-</td>
<td>21,000</td>
<td>-</td>
<td>-</td>
<td>27,000</td>
<td>-</td>
</tr>
<tr>
<td>Fruit concentrate, juice &amp; Nectar</td>
<td>-</td>
<td>NA</td>
<td>40,200</td>
<td>-</td>
<td>NA</td>
<td>50,800</td>
<td>-</td>
</tr>
<tr>
<td>Processed fruit (jam, etc.)</td>
<td>NA</td>
<td>9,450</td>
<td>3,500</td>
<td>NA</td>
<td>13,200</td>
<td>4,100</td>
<td>NA</td>
</tr>
<tr>
<td>Fresh meat (beef)</td>
<td>19,500</td>
<td>100,000</td>
<td>47,229</td>
<td>21,300</td>
<td>102,940</td>
<td>42,880</td>
<td>24,450</td>
</tr>
<tr>
<td>Processed meat (burger, sausages, semi-processed poultry meat, etc.)</td>
<td>9,400</td>
<td>16,800</td>
<td>16,500</td>
<td>20,000</td>
<td>20,680</td>
<td>35,429</td>
<td>NA</td>
</tr>
<tr>
<td>Fresh fruits and vegetables</td>
<td>201,000</td>
<td>336</td>
<td>18,205</td>
<td>200,000</td>
<td>352,000</td>
<td>22,430</td>
<td>201,000</td>
</tr>
<tr>
<td>Frozen vegetable (semi-processed)</td>
<td>NA</td>
<td>NA</td>
<td>6,420</td>
<td>NA</td>
<td>45,000</td>
<td>8,000</td>
<td>NA</td>
</tr>
<tr>
<td>Processed vegetable</td>
<td>NA</td>
<td>34,020</td>
<td>9,200</td>
<td>NA</td>
<td>35,640</td>
<td>15,800</td>
<td>NA</td>
</tr>
<tr>
<td>Convenience food</td>
<td>NA</td>
<td>NA</td>
<td>20,400</td>
<td>NA</td>
<td>NA</td>
<td>30,102</td>
<td>NA</td>
</tr>
<tr>
<td>Snacks (chips, nuts, chocolate, etc.)</td>
<td>NA</td>
<td>NA</td>
<td>23,000</td>
<td>NA</td>
<td>NA</td>
<td>27,200</td>
<td>NA</td>
</tr>
<tr>
<td>Others (various processed food)</td>
<td>NA</td>
<td>NA</td>
<td>20,683</td>
<td>NA</td>
<td>NA</td>
<td>25,683</td>
<td>NA</td>
</tr>
<tr>
<td><strong>Estimates of total imports (in 1000 Euro)</strong></td>
<td>-</td>
<td>-</td>
<td>159,113</td>
<td>-</td>
<td>-</td>
<td>247,902</td>
<td>-</td>
</tr>
</tbody>
</table>

Sources: Custom office of Kosovo; MAFRD / AMPK working groups; External Trade statistics – Dept. of Economic Statistics 2008 and Agriculture Households Survey 2007 – Statistical Office Kosovo (SOK)
Imports of beef have decreased by 9.2 percent in the last three years as a result of increased trend of livestock production (about 8 %) in recent years (as explained in chapter 2.1). The rising of per capacity income and changing roles of women in society may have been contributing to the significant increases in imports of the other processed and convenience food in the last three years.

In light of Kosovo’s growing domestic demand for the major food commodities above and the enormous trade deficit in agro-food, the potential for import substitution can be estimated as presented in the table: 4 above. The “*(best estimates) shares of imported products in the domestic market (2009)“ were calculated based on data obtained from: External Trade Statistics – Dept. of Economic Statistics (SOK 2008); Agricultural Households Survey 2007 (SOK 2007); data from Customs Office Kosovo; and data from MAFRD/AMPK working groups.

4. Current Situation of Kosovo’s Agro-food Industry

The assessment of the current situation and the sector’s development is based on information and insights gathered during interviews with local experts in the sector, Kosovo’s Ministry of Agriculture, Forestry and Rural Development (MAFRD) officials, with agro-food processing companies (processors), associations, farmers, consumers, direct observations, and other.

**Figure 4.1: Share of agro-food import in percentage of total national imports (2008)**

![Graph showing share of agro-food imports in various countries](image)

Note: Agro-food data according to Combine Nomenclature of Custom Tariffs (CNCT).

*Sources: Agripolicy Statistic Table 8-1, Agripolicy.net; Statistical Office of the Republic of Serbia; Chambers of Commerce of Bosnia and Herzegovina*
In recent years, export of food and agriculture products from Kosovo is very small at € 20.6 million in 2008, contributing approximately 10-11% of total national export. As highlighted, Kosovo is a massive importer of food and agricultural products. Annual agro-food imports amount to about € 500 million, corresponding to 24.3% of total national imports as presented in comparison with other countries in the region as shown in figure 4.1 (above).

4.1 Dairy processing industry

The domestic market for milk and dairy products such as UHT milk, yogurt, and cheese are strong and growing. Annual milk consumption averages 160 liters per capita in 2006. Domestic milk producers, if effectively organized and technically efficient, could compete with imported products. (Lingard John 2003). Most recent research on similar topic revealed that consumption of milk per capita in Kosovo is 170 liters and shows upward trend. Based on recent marketing research conducted by KCBS, nearly all Kosovo households (89.7%) occasionally buy dairy product. Primarily they buy UHT milk (71.1%), followed by fresh white cheese, yogurt, and sour cream.

Imported dairy products are dominating the domestic market. Consumers consider that the quality of imported products is better and the price is very competitive. Kosovo imports of dairy products increased from around € 21 million in 2006 to around € 27 million in 2007. UHT milk consumed the highest share of the total value of imports (about 40%), followed by cream and fruit yogurt. Dairy products are imported mainly from Slovenia, Germany, Croatia, Serbia, Bulgaria, and Turkey.

In the last few years, local investors have made considerably investment in the dairy industry to increase the capacity of milk processing in UHT milk production, Devolli with production capacity of 50,000 liters/day, and ABI with production capacity of 30,000 liters/day. Devolli and ABI estimated employ up to 300 people. There are also a number of small and medium-sized dairies with production capacity ranging from 1000 liters/day to 25,000 liters/day. However, dairy processors in Kosovo are often unable to absorb all quantities offered due to seasonal over production and lack of cooling facilities. The peak of milk production season is during summer.

Of the total milk consumed per year in Kosovo, industrially processed milk which domestically produced is only 34,200 tones, and 82,024 tones are imported from Croatia, Slovenia, Germany and elsewhere. Currently milk production is mainly intended only for local market. Domestically
processed milk represents approximately 30.6% of the total milk consumption, and 29.4% of total consumption of processed dairy products, while imports account for 70.6% of total consumption of processed dairy products. Dairy industry in Kosovo is currently not competitive. This is partly due to the relatively high price of primary inputs (raw milk) at farm gate compared to prices in the neighboring countries and high collection and transport costs as presented below (table: 4.1).

Table 4.1: Price of milk in Kosovo and some other countries (in Euro cents/liter)

<table>
<thead>
<tr>
<th></th>
<th>Kosovo</th>
<th>Turkey</th>
<th>Bulgaria</th>
<th>Hungary</th>
<th>Slovenia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price of milk at farm gate</td>
<td>24.0</td>
<td>20.0</td>
<td>20.0</td>
<td>25.0</td>
<td>27.0</td>
</tr>
<tr>
<td>Collection &amp; transport</td>
<td>4.0</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>In-factory milk price</td>
<td>28.0</td>
<td>21.5</td>
<td>21.5</td>
<td>26.5</td>
<td>28.5</td>
</tr>
<tr>
<td>As % of Kosovo price</td>
<td>100%</td>
<td>77%</td>
<td>77%</td>
<td>95%</td>
<td>102%</td>
</tr>
</tbody>
</table>

*Source: UNMIK, Economic Policy Office 2006*

Despite these constraints, however, according to an Agripolicy Network project report\(^{10}\), from 2005\(^ {11}\) to 2009 the market share of domestically processed has increased by five percent.

### 4.2 Fruit processing industry

Annual consumption per capita of processed fruit (jam, dried fruit, excluding juice and nectar) in Kosovo is estimated at six Kg, giving a total annual market demand of approximately 15,000 tons. Including juice, approximately 96% of total market demand for processed fruit items is met by imports. The domestic market is flooded with brands of fruit juice from concentrates, both from locally produced as well as imported. The current processing varieties of juices produced in Kosovo include: Apple, Orange, Peach, Sour cherry, Blueberry, Tomato, Pear, Strawberry, Raspberry, and Multivitamin (consists of various fruit concentrates).

Currently, there are around 20 juice processing companies existing across Kosovo. However, all of these processing companies import concentrates because there is no facility to produce concentrate in Kosovo. KCBS team of Chemonic Inc. who has undertaken a project on “Processing Equipment for Fruit and Vegetable in Kosovo”, in July 2005 revealed that the total amount of


\(^{11}\) Kosovo Swiss Dairy Project conducted in 2005.
concentrate purchased by the entire juice and nectar sector in Kosovo would not justify the costs of establishing a fruit juice concentrate factory.

However, there are some opportunities in the small fruit sector, which is having a market boom at the moment. Blueberry, Blackcurrant, Strawberry, and Raspberry are grown in Kosovo. These fruits (Blueberry, Blackcurrant, Strawberry, and Raspberry) are very perishable, thus they are ideal for processing in Kosovo, because they do not necessitate to be turned into concentrate for further processing into juice or other uses. These products can be processed either by straightforward deep freezing (“Individual Quick Frozen” – IQF), or by production of puree concentrates. Both methods are simpler and less expensive than juice concentrate from other fruits. In addition to that, these crops can be harvested in the second years after planting, and thus do not have such a long investment period.

Currently, there are some production facilities that could expand the necessary facilities to make fruit puree concentrate. The Prizren-based “Progres” factory is able to produce puree and has freezing and frozen storage capacity of around 5,000 metric tons.

Further, according to KCBS team of Chemonic Inc., the potential profits returns for fruit based on world fruit concentrates prices would be approximately € 0/metric ton for Apple, € 270/tm for Sour cherries, and € 1,000/tm for blueberry, raspberry, and strawberry. Blueberries and other small fruits could easily be grown and developed into a viable industry; as well they need less capital investment to be put in place at the processing level.

4.3 Vegetable processing industry

There is a tradition in vegetable processing within Kosovo’s culinary tradition. Usually during summer season, a significant amount of vegetables are processed in house for domestic consumption. According to Statistical Office Kosovo, domestic per capita consumption of fresh vegetable is estimated at 140 Kg/year, and industrially processed vegetable per capita consumption is estimated at 16.2 Kg/year. Major processed vegetable crops in Kosovo are potatoes (frozen French fries, and potato chips), and processed red pepper called Ajvar.

Technology used by vegetable processors in Kosovo is generally not up to date, except for a few exceptions such as Pestova. In general, there is a lack of quality standards (and food safety standards) in processed products intended for both local and foreign markets. Few of the processing units in existence in Kosovo have implemented Hazard Analysis Critical Control Points
decreased in recent years, Kosovo continue to import livestock to fulfill the market demand (see estimated 85% of raw material to meet their production needs.

4.4 Meat processing industry

Total meat consumption per capita in Kosovo is estimated at 49.6 KG/year. Making the total meat consumption annually est. at 102,500 tons/year. Types of meat which are consumed in Kosovo mainly beef, followed by chicken, sheep, and pork. Per capita consumption of processed meat (total) is roughly est. at 9.4 Kg/year. Per capita consumption of beef meat is roughly est. at 22.7 Kg/year. Per capita consumption of chicken meat is roughly est. at 15 Kg/year. Per capita consumption of sheep meat is roughly est. at 1.6 KG/year. Currently, meat processors are making mainly products like: sausages, salamis, hot dogs, which are based on imported semi-finished products. Meat processors in the poultry sectors declared that imported more than 90% of the raw materials. Imported poultry Mechanically Deboned Meat (MDM) appears to be the primary ingredient in each of their sausage type product because the world price of it is very low, thus MDM by nature cannot be replaced economically. In beef sector, local meat processors import estimated 85% of raw material to meet their production needs.

Across Kosovo there are more than 20 meat processing facilities which all together have production capacity of approximately 90 tons/daily, but currently most of they are under-utilized. There are two huge meat and slaughter processing facilities which are extraordinarily far more than what we would have expected to exist in Kosovo; LGB in Gjilan and in Prizren built in the late 80s was truly impressive and even today could easily be restored and utilized as a “high volume” slaughter and meat processing facilities. Although the percentage of imports of beef has decreased in recent years, Kosovo continue to import livestock to fulfill the market demand (see table 3.4).

Compared to current situation of other food-processing sub-sectors like fruit and vegetable processing and dairy processing, meat processing in Kosovo appear to have relatively well equipped processing facilities at this time. While most of them appear to be profitable and be well run by capable entrepreneurs, export potential remains untapped. In this sector, incremental improvements could trigger notable improvements.
5. Competitiveness of Kosovo Agro-food Industry

As discussed in previous chapter (chapter 3), currently agro-food processing industry in Kosovo is generally not competitive. This situation is partly due to the sector’s limitations and capacity gaps identified as technical limitations, managerial limitations, structural limitations, procedural limitations and others as described below:

- **Technical Limitations:**

  The processing technology employed in Kosovo is often not up-to-date. This not only creates less efficient processes than those by competitors, but also renders compliance to international norms and standards more difficult. Few processing companies in Kosovo are certified according to international standards (ISO, HAACP, etc.). Due to the fact that all packaging materials need to be imported, Kosovo producers are at a cost disadvantage. Moreover, in regard to design and labeling, domestic products are generally seen as inferior to imported products, reinforcing the perception bias against locally made goods. In particular in areas that are considered more health sensitive due to sanitation concerns, such as dairy production, Kosovo customers place more trust into imported products. More sustained and better targeted marketing strategies could probably alleviate this constraint.

- **Managerial Limitations:**

  Many local producers grew out of family firms, so that the experience in managing complex operations cannot always be taken for granted. Many managers may not fully grasp the challenges of competition, leading to a lack of anticipation and strategic thinking. Processing and marketing strategies in particular are not given their due importance. In addition, evidence seems to suggest that a commitment to quality is sometimes compromised by other pressing operational needs, eroding further the trust into domestic products, making customers hesitate to believe product information or expiry dates. Another major challenge for the agro-food industry is the establishment of distribution networks. In the dairy industry, for example, some of the bigger domestic dairy processors like Devolli, ABI, and Bylmeti have already created their own distribution systems, while the smaller dairy producers have to rely on distributing their products directly to clients. Other sub-
sectors of the food-processing industry in Kosovo usually distribute their products directly to supermarkets and stores. Overall, in comparison to importers, which also tend to have a bigger capital base, local dairy producers – symptomatic for the whole industry - still have underdeveloped distribution channels.

**Financial Limitations:**

As indicated by business practitioners, the financial sector has not been helpful for the agro-food sector. Interest rates for the agro-food sector appear to be higher than for other sectors, as banks see agricultural investments as carrying high risks.

**Structural Limitations:**

The fragmented nature of the farmland and the resulting small size of farms lead to relatively high costs for the collection of primary inputs (such as fresh milk, for example). This problem is compounded by often poor transport facilities. As a result, the prices of primary inputs for some commodities such as milk and meat tend to be unfavorable for local producers. Compounding the challenge of high costs for inputs is the fact that in a number of neighboring countries producers benefit from government subsidies for agricultural products and production inputs.

**Procedural Limitations:**

Weak enforcement of food quality and food safety standards and regulations lead to inconsistency of quality and standards, resulting in a lack of consumer trust into the product quality of domestically produced agro-food products in general.

Efforts to enhance competitiveness of Kosovo agro-food processing will have to take into account those identified limitations. To overcome those limitations and capacity gaps, efforts to enhance the human capital and technological capital will need to increase significantly, if Kosovo is to be able to compete in today’s markets.
5.1 SWOT analysis

**Strengths, Weaknesses, Opportunities and Threats**

<table>
<thead>
<tr>
<th>Strengths (S)</th>
<th>Weaknesses (W)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enthusiasm of the farmers and processors</td>
<td>Lack of arrangement between farmers &amp; processors</td>
</tr>
<tr>
<td>Significant number of farm households – agricultural population is high</td>
<td>Lack of technical assistance for Quality Control (QC)</td>
</tr>
<tr>
<td>Several raw materials supply – reasonably priced</td>
<td>Packaging need to be imported</td>
</tr>
<tr>
<td>Ideal climatic condition – good quality of main agro produces (row materials)</td>
<td>Lack of government oversight, in terms of QC standards and food safety</td>
</tr>
<tr>
<td>The proximity to European markets</td>
<td>Lack of knowledge of marketing strategies</td>
</tr>
<tr>
<td>Young population</td>
<td>Lack of financial means</td>
</tr>
<tr>
<td>Multi-lingual society within the European context</td>
<td>Weak enforcement of food laws and food inspection program</td>
</tr>
<tr>
<td>Inexpensive labor</td>
<td>Little or no government subsidy</td>
</tr>
<tr>
<td>EURO currency</td>
<td>Poor market infrastructure</td>
</tr>
<tr>
<td></td>
<td>Low investment in infrastructure &amp; modernization</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities (O)</th>
<th>Threats (T)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Established market for convenience foods</td>
<td>Losing the competition in the market</td>
</tr>
<tr>
<td>Relatively high purchasing power as a result of “remittances”</td>
<td>No change in: policies, implementation and law enforcement</td>
</tr>
<tr>
<td>Geographically Strategic location</td>
<td>Animal diseases – epidemics</td>
</tr>
<tr>
<td>Import substitution</td>
<td>Oversupply import penetration</td>
</tr>
<tr>
<td>Regional export potential</td>
<td>Complacency</td>
</tr>
<tr>
<td>Fast growing market demand</td>
<td></td>
</tr>
<tr>
<td>Preferential treatments from EU and Switzerland</td>
<td></td>
</tr>
</tbody>
</table>

5.2 Growth opportunities for agro-food processing industry in Kosovo

Although it might require separate in-depth research, indications point towards strong demand for dairy products, processed beef and poultry, and potato based products, and non-alcoholic drinks such as juice and soft drinks. Also, frozen puree from small fruits based such as berries, blueberries, strawberry, etc., could prove to be a viable and promising industry in Kosovo. In recent years, there has been significant exports growth in agro-food exports albeit from a very low base, as presented below (fig. 5.1).
Future potential of the following products could be considered: (1) based on the availability of raw materials in general, (2) based on the suitability of the processors’ existing equipment or with minor modifications for producing new products, (3) and most importantly, based on projections of future demand by local and export markets.

   a) Several potato products, such as frozen convenience foods based on potatoes (French fries) sold in bulk, and other processed potato products (chips crisps, snacks)

   b) Frozen vegetable sold in bulk (semi-processed), in particular red pepper

   c) Small fruits such as blueberry, blackcurrant, strawberry, and raspberry are very perishable, and thus only need simple processing technique e.g., Individual Quick Frozen (IQF) form or in puree concentrates form

   d) Tomato based products: tomato puree, etc. for export

   e) Meat products

   f) Dairy products (mainly considering the high growth demand projection)

   g) Paprika based products: paprika flake and paprika powder

Considering the relative high annual domestic consumption per capita of those food products, the abundance of the raw materials in the country (in the local market), and the labor cost in Kosovo
that is below the regional average, the products listed above, should have a future potential and has the potential to expand into foreign markets.

6. Lesson Learnt on Best Practices

There is much to be learned from the experiences of Croatia, Slovenia, and elsewhere. Croatia, for example, has a lot of similarities with Kosovo in terms of a high proportion of small and private farms as it is in Kosovo. Slovenia and Croatia made substantial progress in institutional reforms which have led to better access to capital and technology and more effective privatization which created a more favorable for the sector to grow. The following key findings (lessons) learnt:

Croatia

The structure of the agro-food sector has been changing gradually over the past ten years, as larger scale agro-kombinates have become less important and smaller-scale. A more modern and efficient processing firms have begun to emerge. Important sub-sector for employment includes beverages (19%), meat and meat production (18%), and milk/dairy (9.7 %). The milk processing sector is dominated by two big dairies (more than 100 million liters/year), and around 35 medium and small-scale enterprises (below 50 million liters/year). Big dairies run partly their own program to increase high quality and quantity of the row milk supply by giving support in improving on farm operations.

SMEs have been a key factor for development in Croatia. Investments mainly have been targeting SMEs and focusing exclusively on the weak links in the production, processing and marketing chain of each sub-sector chosen. Interventions in the agro-food processing sector have been in particular focusing on the first processing sequence – up-grading of the community environmental, hygiene food safety, animal welfare standards, as well as the treatment of animal waste and risk materials.

Slovenia

The government of Slovenia established a special taskforce in charge of competition. Its work start by looking into factors determining the economic efficiency of an individual production facility. It supports measures to promoting price transparency within the agro-food industry linkages, as well as promotes solidarity and dialogue among producers, processors, and retailers. Dialogues need to be established, as without such an agreement problem may occur in the production.
The Government of Slovenia has been applying a Health Impact Assessment (HIA) during the development of agriculture and food policies. The HIA has basically followed a six-stage process: policy analysis; rapid appraisal workshops with stakeholders from a range of background; review of research evidence relevant to the agriculture policy; analysis of Slovenia’s data on key health related indicators; a report on the findings to a key cross government group and evaluation.

In the case of Slovenia, an element underpinning successful interventions to increase productivity has been achieved mainly by means of increasing investments at SMEs sector, innovation and new technologies. In addition to that, it was the continuous endeavor of attaining international standards, specialization and focus on high value added products and services through better entrepreneurship training, assistance and business infrastructure, as well as networking and clusters.

Malaysia

In Malaysia, the Department of Agriculture (DOA) has developed a Farm Production Certification Scheme called SALM. It is a detail scheme that covers all the important critical criteria of production process that would provide sufficient confidence to consumers for locally produced fruit and vegetable crops. An Agriculture Marketing Agency called FAMA\textsuperscript{12} is promoting local produce under a brand name “Malaysia’s Best” where one of the qualification for the brand is a SALM certification. This is an exemplary public sector support for the small producers in differentiating their products in the markets.

7. Infrastructure Investment Strategies for Agro-food Industry in Kosovo

7.1 Charting strategic priorities

Overall, the development of agro-food processing industry sector in Kosovo should be aligned with the larger economic development goals of the country. In this regard, Small Medium Enterprises (SMEs) will have to play an important role in Kosovo’s overall strategy for economic development. The performance of the different processing industries analysis has to be linked to estimates of the competitiveness of the industry (business viability) and market demand. In this regard, the agro-food industry’s current problems and limitations inform future priorities. It is

\textsuperscript{12} Source: Kit Chan Director of K-farm, Malaysia. www.k-farm.com
against this background of (1) comparative advantages, (2) projection of future demand & potential for import substitution, and (3) limitations and gaps that a support strategy for the agro-food industry in Kosovo needs to be charted. At this juncture, lessons learnt on best practices and success stories from the region need to be looked at carefully. Any policy would have to take cognizance of the vital and facilitating role of overall infrastructural development including roads, power supply, water, and others.
Comparative Advantages
- Labour intensive & low labour costs
- Small fruits (strawberry, blueberries, berries, and other small and soft fruits) production & processing
- Meat and livestock
- Fruit and vegetables

Domestic & Export Markets-Demand Projection
- Processed meat
- Processed vegetables and fruits
- Dairy products
- Potato chips and snacks
- Convenience food
- High value vegetables and fruits

Limitations & Capacity Gaps
- Managerial focus on competitiveness
- Enforcement of quality and safety standards
- Laboratory testing facilities, high capacity cold storage and freezing, appropriate technology
- Technical staff, human resources in food-technology

Chart 7.1: Infrastructure Investment Strategic Priorities for Kosovo’s Agro-food Processing Industry

Infrastructure Investment Strategies

Lessons Learnt on best

National Development Plan

Rochester Institute of Technology
Capstone Project Report
7.2 Discussion on critical issues to increase the sector’s outputs

Based on information and insights gathered during interviews with: agro-food processing companies (processors), relevant associations, local experts in the sector, Kosovo’s Ministry of Agriculture, Forestry and Rural Development (MAFRD) officials, as well as from direct observations, the current biggest challenge facing the industry is "how to sell" the domestically processed products to the markets. Currently, the domestic market is flooded with imported products. Domestically processed agro-food products currently only gain a market share of about 25%, whereas the analogue imported products enjoy a market share of about 75% in Kosovo domestic market.

To increase the outputs of agro-food industry means gaining a higher domestic market share, in the current Kosovo’s context. A thorough understanding of “consumers’ purchase decision making and consumers’ preferences” should be the starting point for strategizing the efforts. Kosovo consumers place product attributes such as: food quality and safety, and taste, as highly important in their purchase decision-making. Recent research on “Kosovo consumers purchase decision and preference” has revealed the following decision parameters, in order of importance: nutritive content, product quality and safety, taste, and product origin (in order of importance), as the main features (Fig. 8).

Figure 7.1: Study on Kosovo consumers’ buying preferences for food products

7.3 The Way forward - Critical issues to enhance competitiveness

Enhancing competitiveness of Kosovo agro-food processing sector will have to take into account the above issues and capacity gaps and limitations which the sector is currently facing.

Infrastructure (physical and institutional infrastructure) plays an important role in enhancing competitiveness\textsuperscript{13}. \textit{Thus, in the Kosovo's context, currently, there are three central issues which need to be addressed to increase the competitiveness of the sector:}

1. Food safety and quality standards
2. Sector’s limitations and capacity gaps (as discussed in chapter: 5)
3. Marketing strategies

7.3.1 Food safety and quality standards

Food safety and quality standards are the major defining issues for market access today and will continue to be in the future especially in developed countries. They are the most important aspects that customers take into account in their buying decision. Thus, stringent enforcement of food quality standards and food safety regulations is necessary and thereby investments in these areas will be of paramount importance.

Establishment of institutional and physical facilities to facilitate compliance with the standards (laboratories) and testing equipment as well as in human capacity such as providing training and capacity building for both the government and the agro-food processors on food safety and quality management, regulation, enforcement, and the requisite safety and quality standards will be needed.

The agro-food processing companies will need to identify critical control points for every process step and standardize their process operation, by regularly submitting samples for products analysis in a government quality control laboratory. Under this condition, submission of samples for quality analysis should be done on a periodic basis. Learning and applying the prerequisites

\textsuperscript{13} The statement was stated by Straub in his books titled “The Impact of Infrastructure on Growth for Developing Country” (2008a, 2008b).
and working principle of Hazard Analysis Critical Control Points (HACCP) tremendously help in achieving the goals of quality assurance. In short, agro-processing industries in Kosovo need to implement an integrated quality management system as well as the international food market standards and requirements, such as a Good Manufacturing Practice (GMP) along with a HACCP program. This would minimize the present of microbiology, chemical, or physical during processing. Full responsibility for meeting safety and quality standards lies with each food chain stake holders, irrespective of their size.

Lessons learnt from Slovenia suggest that elements underpinning successful interventions to increase productivity have been achieved mainly by means of increasing investments at SMEs sector, innovation and new technologies. In addition to that, it was the continuous endeavor of attaining international standards, specialization and focus on high value added products and services through better entrepreneurship training, assistance and business infrastructure. In the case of Kosovo, to start with, public infrastructure support requirement at minimum according to SMEs operating in the sector, are high capacity of cold-storages and freezing facilities of fruit and vegetable for both post harvest and for semi-finished products. In addition to that, simple access to financial means and capacity building for SMEs will also needs to be facilitated in order to be able to capture the emerging opportunities in small fruits (strawberry, blueberry, berries) and other commodities identified as most promising, to support the production and the processing industry.

7.3.2 Sector’s limitations and capacity gaps

Technical limitations, managerial limitations, structural limitations, financial limitations, and procedural limitations, are limitations and capacity gaps which the industry is currently facing. These limitations and capacity gaps will need to be addressed urgently to increase competitiveness of the sector, thus to increase the agro-food industry outputs. With the very low\textsuperscript{14} sectoral public spending budget (1, 2 percent) is being committed to agriculture, everyone would have to play their parts and work smarter to achieve the common goals.

However, at minimum, in order to improve the current situation, in terms of physical infrastructure the Government of Kosovo is expected to provide support in the following areas:

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\textsuperscript{14} \url{http://www.ks.undp.org/repository/docs/development_and_trasition_4_english.pdf}
laboratory testing facilities, collection centers for inputs (such as milk in particular), high capacity freezing facilities, cold room facilities, and cool truck transportation. There should be measures put in place to regulate the usage of those public infrastructure support provided, that they are there only for the intended beneficiaries. In the case of open access to all, sustainability is compromised.

(Further discussions on the sector’s limitations and capacity gaps can be found in chapter 5)

7.3.3 Marketing strategies – Adopt Best Practices

In light of Kosovo’s enormous trade deficit in agro-food, the shares of imported products in the domestic market can be estimated as the opportunity for import substitution. Kosovo agro-food processing companies will need to increase their competitiveness significantly, if they were to capture a higher domestic market share and be able to compete in the regional markets. The adoption of new patterns of business organization, such as: strategic alliances, processing cooperatives, joint ventures, and new market channel may become necessary, as international competition is going to increase the pressure on Kosovo companies. Kosovo agro-food processing companies (processors) must improve the operational efficiency in their activities in order to take advantage of economies of scale in production. By attaining lower fixed cost per unit, they will benefit from lower production costs and prices. These all would lead the domestic agro-food products to increase their market share in the domestic market, as well as increase opportunities of penetration in foreign markets.

To help and support Kosovo agro-food processing companies win the competition in the markets, lessons learnt on best practices suggest that the following measures are of critically important:

- The Government of Kosovo should establish a special taskforce in charge of competition and competitiveness. Its work should start by looking into factors determining the economic efficiency of an individual production facility. It would support measures to promote price transparency within the agro-food industry linkages, as well as promotes solidarity and dialogue among farmers, agro-food processing companies (processors), and retailers.
- The Government of Kosovo should establish an Agriculture Marketing Agency promoting domestic produce under a brand name “Kosovo’s Best”. The selected products would have to comply with the stringent quality and safety standards.
The Government of Kosovo together with domestic agro-food processing companies should promote a good image of domestic products in the eye of domestic consumers by not only improving food safety and quality standards, but also improving marketing processes. To this end, it requires up to date (modern) and attractive packaging as well as more informative labels.

The Government of Kosovo should allocate more resources to support the industry, as the agro-food processing industry in Kosovo has been identified as having the comparative advantages to grow and be very competitive if it were supported by favorable government policies.
8. **Summary Recommendations to the Public and the Private Sector**

Drawing on the above, this project aims to suggest a number of strategic and specific interventions, as follows:

<table>
<thead>
<tr>
<th>Issues and Constraints</th>
<th>Recommendations</th>
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<tbody>
<tr>
<td><strong>Government (public sector)</strong></td>
<td><strong>Private sector</strong></td>
</tr>
<tr>
<td>1. Food quality and safety-management (Norms and Standards)</td>
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</tr>
<tr>
<td>▪ Deficiency in laboratory facilities, technical staff and human resources to perform product testing</td>
<td>▪ Establish appropriate testing laboratory facilities in every region and provide training in laboratory technology, food safety and quality management to meet the EU standards.</td>
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<tr>
<td>▪ Weak law enforcement on food quality and safety standards</td>
<td>▪ Provide support to agro-food processors for getting HACCP and other international related certification of 50% of the costs incurred for obtaining the quality certification mark or through programs and loans that allow them to comply with the EU standards in reasonable periods of time.</td>
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<td></td>
<td>▪ Set standard and quality criteria that businesses would have to meet before their products can be allowed to enter the markets.</td>
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<tr>
<td></td>
<td>▪ A stringent enforcement of food quality standards and safety regulations.</td>
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<td></td>
<td>▪ The processing companies need to identify critical control points for every process step and standardize their process operation, by regularly submit sample for products analysis in a government quality control laboratory.</td>
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<td></td>
<td>▪ Work seriously towards obtaining the ISO, GMP, and HACCP certifications through building capacities on food safety and quality management, regulation, and the requisite safety and quality standards.</td>
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### Physical infrastructure investments priority areas

- Investment in high capacity of cold-storage and freezing facilities for both post harvest and for semi-finished products, and laboratory testing facilities.

- Establish infrastructure collection centers for inputs (such as milk in particular), cold room facilities, cool truck transportation, high capacity freezing facilities, and laboratory testing facilities. These should be made available to the small scale producers for a reasonable fee for the usage of the facilities.

### Marketing strategies

- Establish a special taskforce in charge of competition whereby factors determining the economic efficiency of an individual production will be thoroughly looked into.

- Build a good image of domestic products in the eye of domestic consumers by improving food safety and quality standards.

- Establish an Agriculture and Agro-food Marketing Agency of Kosovo for promoting domestic products under a brand name “Kosovo’s Best” where one of the qualification for the brand is charged with the quality and safety standards certification.

- Facilitate international & regional trade fairs and domestic trade fairs in a regular basis (annually).

- Conduct thorough market research to gain robust understanding of consumers’ behavior and their consumption pattern, in order to make appropriate marketing decisions.
9. Conclusion and Recommendations

With more than 55% of Kosovo’s population living in rural areas, agriculture is an important sector in Kosovo’s economy. However, Kosovo is not self-sufficient in food production and relies heavily on imports. At present, Kosovo’s agriculture and agro-food processing industry is facing huge challenges. The challenges among others are to increase its competitiveness in the domestic market. The Kosovo domestic market is currently flooded with imported food products from neighboring countries and beyond. The domestically processed agro-food products currently only gain a market share of about 25%, whereas similar imported products enjoy a market share of about 75% in Kosovo’s domestic market. Kosovo’s imports of food and agriculture products make up about 24% of total national import in 2008.

Various factors have been contributing to the current situation and the lack of competitiveness of the sector. In light of these huge challenges, however, currently only about 1.2 percent\(^\text{15}\) of Kosovo’s sectoral public spending is committed to agriculture, less than 0.1 percent of its national GDP. In light of limited budgetary resources of Kosovo, the Green Book recommended “not to attempt to compete with regional and European countries in subsidizing agriculture”, but to focus on fiscally neutral policies of support. Given the fact that Kosovo’s producers are at a relative cost disadvantage due to inputs and other subsidies enjoyed by regional competitors, given the facts that most of neighboring countries producers benefit from government subsidies for agricultural products and production inputs, the current Kosovo’s policy on its agriculture sector has surely also contributed among others to the challenge of high costs for inputs for the agro-food processing industry. However, policies to support the sector should focus more on reinforcing and capitalizing on the existing comparative advantages.

In light of the above, as competitiveness of Kosovo’s agro-food industry is the most crucial factor for driving up higher agro-industrial outputs which in return will lead to creating employment and income opportunities for the great majority who live in rural areas, the Government of Kosovo will need to focus on identifying the most cost-effective investment strategies to strengthen the competitiveness of domestically produced agro-food products. In the context of Kosovo, there are

three central issues that need to be addressed simultaneously to increase the competitiveness of the sector: (1) Food safety and quality standards, (2) Sector’s limitations and capacity gaps (as discussed in chapter: 5), and marketing strategy. Addressing all these issues, the human capital and the technological capital will need to be enhanced.

The Government of Kosovo (public sector) may need to establish a task-force in charge of competition and to establish an Agriculture and Agro-food Marketing Agency of Kosovo promoting domestic products. A brand name such as “Kosovo’s Best” should be developed, and standards and quality criteria be set before products can be allowed into the markets or to carry the brand name. The enforcement and monitoring unit of such public institutions should be charged with the certification of such products.

In terms of physical infrastructure, support is most needed in the following areas, in order of importance:

1. Adequate laboratory testing facilities
2. Collection centers for inputs for the agro-food processing industry (for milk and small fruits in particular)
3. High capacity freezing facilities
4. Cold room facilities
5. Cool truck transportation

These should be structured and be made available to the small scale producers for a reasonable fee for the usage of the facilities. To make them sustainable, giving them for free would not be recommended. Additional investment funding of 20 – 40 millions euro would be expected to be required to implement these five areas over the next ten years. Carefully implemented in close collaboration with stakeholders and beneficiaries, these investments could positively transform Kosovo’s agro-processing industry.
10. References

9. WBC – inco.net: “ National Background Report on Agro-food Research for Kosovo (under UNSCR 1244)”, authors: Dr. Adem Demaj, Prof., Dr. Skender Kaci, Prof. asc., Dr. Arben Mehmeti, Faculty of Agriculture and Veterinary – Pristina University, Prishtina, December 2009.
15. Iliriana Miftari: “Kosovo consumer buying behavior preferences for milk and dairy products”,
Norwegian University of Life Sciences - Master thesis 2009.
17. Stefan Daehnert Ph.D: “The Situation of Quality Standards and Future Development of the
Horticultural Sector of Kosovo”, Inter coorporation, June 2009.
18. Kosovo Cluster and Business Support Project Team of Chemonic Inc.: “Dairy Laboratory
Survey in Kosovo” – supported by USAID, June 2006.