AGRICULTURAL UNIVERSITY-PLOVDIV

FACULTY OF ECONOMICS

GETOAR LUBENIQI

THE ROLE OF SUBSIDIES FOR SUSTAINABLE DEVELOPMENT OF AGRIBUSINESS IN KOSOVO

AUTOREFERAT

of dissertation for the presence of
educational and scientific degree "PhD"
in Scientific field 3.0 Social, economic and legal sciences, professional field 3.8.
Economics, scientific specialty "Economics and Management (Agriculture)

Scientific Supervisor:
Assoc. Prof. Dimo Atanasov Ph.D

Plovdiv, 2020

The dissertation consists 194 pages and includes abstract, three parts, conclusions and literature references. The dissertation is presented with 47 tables and 28 figures.

The dissertation work is reviewed and approved for defence at departmental council of the Department of Economics at the Agricultural University – Plovdiv, Protocol 209/12.03.2020.

The scientific jury is appointed by an order of the Rector of the Agricultural University – Plovdiv, № RD-16-547/25.06.2020 г. in the following composition:

Reviewers:

Prof. Nadka Stefanova Kostadinova PhD

Assoc. prof. Minko Atanasov Georgiev PhD

Scientific opinions:

Assoc. prof. Snezhinka Konstantinova Stoyanova PhD

Assoc. prof. Mariya Marinova Peneva PhD

Assoc. prof. Vanya Krasteva Georgieva PhD

The final defense of the dissertation will be at 16.09.2020, 11:30 o'clock in the hall for distance learning of the Agricultural University - Plovdiv.

I. ABSTRACT

Kosovo declared independence in 2008, and after that period, the national economy is facing major transformations and restructuring. A number of reforms have been implemented and the main direction is integration to the European Union.

In 2015, Kosovo is part of the 2030 Sustainable Development Program, committing to 17 goals aimed at ending extreme poverty, reducing inequality and creating a greener planet. With more than 9,000 Kosovars participating in research linked to the preparation of the post-2015 agenda, the UNKT team with international and national partners supported local institutions in achieving their development aspirations.

In this perspective, it should be emphasized that agriculture in the Republic of Kosovo is an important sector of the national economy which, also contributes to increase of employment and income in rural areas.

The global and national challenges to agriculture of economic, technological, environmental, demographic, social and institutional nature lead to government programs, measures and instruments supporting agriculture and farming communities.

From this perspective, the relevance of the present dissertation is related to the need for a comprehensive assessment of the role of subsidies for sustainable agriculture in the Republic of Kosovo, with a particular emphasis on the economic aspects of sustainability.

The main thesis of the study is that subsidies and their distribution by region and sector have a positive impact on the economic sustainability of agriculture.

The purpose of the dissertation is on the basis of an analysis of the agricultural potential to assess the role of institutional support for sustainable development in the Republic of Kosovo and to present measures and opportunities for optimizing the process.

The studies includes the following main tasks and stages:

• Review of the theoretical and methodological aspects related to state interventions in the agricultural sector, with a focus on the nature of subsidies, their effect and impact on agriculture;

• Exploring the theory and methodological framework for assessing sustainable development with a focus on agriculture;

• Represent a methodology for research, analysis and evaluation of the impact of subsidies on agricultural performance and their role for sustainable development;

• Analysis and assessment of the agricultural production potential in the Republic of Kosovo;

• Observe the trends in the distribution of financial support by region and sector;

• Identifying the impact of subsidies on the economic sustainability of farms with different specialization;

• Defining opportunities and options for improving the competitiveness and sustainability of different agricultural sectors;

• Recommendations for sustainable agricultural development.

The ***subject of the study*** is the impact of subsidies on the sustainable development of agribusiness.

The ***object of the study*** is the agricultural sector of the Republic of Kosovo.

Methods of study. Based on the scientific approach, different methods of research and analysis are used. The method of comparison is applied in the theoretical analysis of scientific literature. A comparative, monographic, tabular and graphical method, statistical methods of research and analysis are used. The assessment of the impact of institutional factors on sustainable development is based on policy analysis matrices (PAM).

Information sources. The information in the survey is based on the data provided by three main sources, including:

• Centralized sources at international level: FAO, OECD, World Trade Organization, World Bank, European Statistical Institute (EUROSTAT)

• Centralized sources at national level: Kosovo Statistical Office, Central Bank of Kosovo

• Own sources: Own survey focused on evaluation of the impact of institutional support on economic sustainability

II. MAIN CONTENTS OF THE DISSERTATION

CHAPTER 1 : THEORETICAL AND METHODOLOGICAL ISSUES OF GOVERNMENT SUPPORT IN AGRICULTURE AND ITS ROLE FOR SUSTAINABLE DEVELOPMENT

The first chapter of the study is based on an analysis of various literature sources and survey a large number of definitions. On that basis the theoretical framework of the study is adapted. Different definitions and classifications of subsidies are presented, the concepts for sustainable agricultural development and the link with the institutional support are observed. Based on the theoretical analysis, a methodological framework of the study is adapted.

1.1. Subsidies in agriculture - definitions and classifications

In every country, whether developed or developing, the government intervenes on agricultural markets. The agricultural policy, its influence and role has been the subject of analysis for decades. In this regard, Stigliz (1987) analyses the main reasons for state intervention in agriculture and answers the questions why the market allocation of resources is considered inefficient or "unacceptable". The author highlights several main reasons:

- ✓ Insurance and access to credit.
- ✓ Imperfect information.
- ✓ External effects.
- ✓ Income distribution.

Perhaps the most important reason for government intervention in agriculture is related to the distribution of generated income in the economy. This distribution often does not correspond to society's ethical assessments. In particular, it can lead to a significant number of people having unacceptably low incomes or food shortages. Therefore governments has developed programs to increase the incomes of small farmers, as well as food subsidy programs. Although different reasons for government action are possible, the link between them and actual government policies may be unclear. Thus, risk reduction measures (such as price stabilization programs) can actually increase farmers' income risks and often lead to a concentration of subsidies.

Nowadays agriculture is supported by governments almost everywhere. On the other hand, agricultural subsidies are not easily eliminated, even when the original reason for their implementation no longer exists. Agricultural subsidies in one country, followed by agricultural subsidies in another country or unions, can finally lead to protectionism worldwide. Based on the conditions in many developing countries, governments may consider that the trade barriers are cheaper (at least in the short term) than to further increase of the costs of agricultural activities.

Therefore it is easy to see why international organizations are showing increasing interest in the various types of agricultural subsidies. In this context, it is very important to identify and adopt a common definition of subsidies.

The general idea of subsidies is that they involve (real) transfers from one group in society to another, in particular from taxpayers (through the government) to certain groups in society,

or business, or households. This general idea of subsidies applied to the agricultural sector does not provide a solid basis for international comparison, nor does it serve an analytical purpose. (Joint Economic Committee, 1973).

The Joint Economic Committee, which analysed the USA federal subsidy program, defines subsidies as "public sector funds that directly change relative prices in the private sector. Perst (1974) considers this definition to be insufficient.

More precisely, the definition is that subsidies are payments other than those normally paid for goods, services and factors (OECD, 1983). Subsidies in this definition are therefore caused by changes in relative prices by the government. Of course, it is not always possible to determine the price that is usually paid.

In general, "the subsidy is the result of government action that confers an advantage on consumers or producers, in order to supplement their income or lower their costs (OECD, 2005).

The types of subsidies vary depending on the country and the goods. The main forms of subsidy according to Sumner, 1995 include: (1) direct payments to farmers; (2) price measures; (3) regulations that set minimum prices by location, or some other characteristic; (4) subsidies for goods such as crop insurance, credit, marketing and irrigation; (5) export subsidies; and (6) import barriers in the form of quotas, tariffs or regulation.

1.2. Subsidies and sustainable development

The concept of "sustainable agriculture" gained popularity after the publication of the Brundland report in 1987. (Velten et al., 2015). The sustainability of agricultural systems has been widely discussed and considered as essential for the transition to global sustainable development (OECD, 2001; Binder et al., 2010). Despite the broad consensus on its importance, there are differences in how sustainability is defined in agriculture and how it is actually implemented in the policy-making process (Binder et al., 2010). This is partly due to the fact that it is derived from a number of "alternative" farming concepts, such as organic, regenerative and ecologic farming (Lockeretz, 1988; Dunlap et al., 1992). It also reflects the fact that competing stakeholders tend to define sustainability in ways that serve their specific interests (Dunlap et al., 1992; Allen et al., 1991).

The concept of sustainable agriculture covers different aspects of agriculture in different regional and national contexts (Zhen and Routray, 2003). However, a review of the definitions of sustainable agriculture reveals some consensus in certain areas of the concept. Most of the definitions, for example, take into account the three pillars of sustainability - environmental, social and economic. The multidimensional approach is developed by FAO (1990) "Sustainable Development is the management and conservation of the natural resource base, and the orientation of technological and institutional change in such a manner as to ensure the attainment and continued satisfaction of human needs for present and future generations Such development (in agriculture, forestry and fishing, etc.) preserves the genetic resources of land, water, plants and animals, is environmentally friendly, technically appropriate, economically viable and socially acceptable. "

The link between subsidies and their effects on sustainable development, in particular the impact on the environment, has been recognized by the research community for many years. Economists consider subsidies as inefficient, expensive, and harmful to the environment, which impose a burden on government budgets and taxpayers – these are strong arguments

for reform (OECD, 2005). Subsidies distort prices and resource allocation decisions, thus changing the quantity of goods and services produced and consumed in the economy. This type of support is offered for a number of reasons, including promoting regional development, supporting employment and income, and facilitating adaptation to changing economic, social or environmental conditions (OECD, 2005).

The assessment of the subsidies is a necessary aspect for improving transparency in the trading system. Additional monitoring would help in number areas in this context. Subsidies are economical in their initial impact, but can have important social or environmental consequences. The analysis of subsidies related to the sustainable development requires integrated approach of analysis.

The perspective for Sustainable Development also emphasizes the fact that the links between activities are global, not just local, and that the consequences of an action need to be assessed not just in the short term but also in long term.

According to the OECD (2007), the potential benefits of subsidy reform have a number of perspectives. Based on the methological framework the sustainable development approach in the dissertation observes economic, environmental and social performance.

1.3. Research methodology

Based on the review of the concept for sustainable development and its link with the government's interventions in the agricultural sector, a research methodology has been developed in three main parts.

Methods and indicators for sustainability assessment

Various tools for measuring sustainability of agricultural systems have been developed (Binder et al, 2010; Schader et al., 2014; De Olde et al., 2016). Sustainability measurement and monitoring tools vary significantly geographically and sectorally, on the one hand, on the other by groups such as farmers or policy makers, selection of indicators, aggregation methods and implementation (Marchand et al., 2014; Schader et al., 2014). Many authors emphasize the importance of integrating environmental, economic and social issues into sustainability measurement tools. However, the environmental aspects receive more attention (De Olde et al., 2016; Binder et al., 2010; Finkbeiner et al, 2010; Lebacq et al, 2013; Marta-Costa и Silva, 2013; Schader et al., 2014).

Sustainability indices differ in terms of objectives and assumptions, such as what needs to be measured, how to measure it and which sustainability prospects are appropriate. These differences in key characteristics mean that the choice of index affects the result of the assessment (Marchand et al, 2014).

Rigby et al. (2001) and Gomez et al. (1996) constructed farm sustainability indices covering six aspects: yield, profit, crop failure rate, soil depth, organic certification and permanent soil cover.

Based on a review of different approaches and their adaptation according to the direction of the research, the present dissertation focuses on the economic component of sustainable development, therefore the technical, economic efficiency and profitability are observed.

Methods and indicators of agricultural support

Financial support of the agricultural sector is a widely acknowledged instrument of agricultural policy. Many developed economies provide significant support to their farmers and the level is growing in developing economies as well. Agricultural support can be

provided through various instruments (subsidies, supported prices, etc.) and can be financed by various stakeholders (taxpayers, consumers, foreigners, etc.). This makes its assessment difficult and contradictory.

Agricultural support is monitored by international organizations. National governments also calculate different indicators. Most of them are quite special designed to be calculated with simple and easily accessible data. Complex indicators, which require much more data and information and often an economic model, can hardly be the basis for international comparisons and negotiations.

Producer surplus and consumer surplus are key components of economic welfare analysis. In the case of a complex policy that combines taxes, subsidies, quotas, etc. producer surplus remains a central measure for synthesizing the various effects on producer welfare.

The dissertation analyses the OECD indicators for assessing financial support in the agricultural sector: Producer Subsidy Equivalent (PSE), is defined as annual monetary value of gross transfers from consumers and taxpayers to agricultural producers, measured at the farm gate level, arising from policy measures that support agriculture, regardless of their nature, objectives or impacts on farm production or income.

Total Support Estimate (TSE) is also calculated by the OECD and represents annual monetary value of all gross transfers from taxpayers and consumers arising from policy measures that support agriculture, net of the associated budgetary receipts, regardless of their objectives and impacts on farm production and income, or consumption of farm products. In particular, the TSE includes the component defined as General Services Support Estimate (GSSE), the annual monetary value of gross transfers to services provided collectively to agriculture and arising from policy measures which support agriculture, regardless of their nature, objectives and impacts on farm production, income, or consumption of farm products

Methodology for assessing the impact of institutional support on sustainable development

Substantial changes in agricultural policies, globalization of the international markets and the reforms in Kosovo have led to an increase in the importance of methods for assessing potential comparative advantages and competitiveness as a basis for sustainable development. The public support impact can be conducted by application a variety of mathematical approaches and models. One of the most commonly used method in the agricultural sector the Policy Analysis Matrix (MAP) developed by Monke and Pearson.

The information generated by the MAP can be modified for other coefficients and indicators important for the analysis. There are recognised as main measures of comparative advantages as a basis for analysing the opportunities for sustainable agricultural development. In the present study were used: Market and social efficiency; Nominal Protection Coefficient (NCP); Effective protection coefficient-EPC; Domestic Resource Cost ratio (DRC).

CHAPTER 2: ANALYSIS AND EVALUATION OF THE ROLE OF SUBSIDIES FOR THE SUSTAINABLE DEVELOPMENT OF AGRICULTURAL BUSINESS IN KOSOVO

2.1. The role of agriculture for the Kosovo economy

Kosovo faces a number of challenges in developing a competitive economy and reforming national policies in order to be close to the EU standards. A new phase in the EU-Kosovo relations began with the sign of the Stabilization and Association Agreement in October 2015. This agreement opened a new opportunity for free trade and the application of European standards in a variety of sectors.

Kosovo has made progress in developing its national agricultural strategies, grant schemes, control mechanisms, agricultural registers and statistics. The EU support the country through the Instrument for Pre-Accession Assistance (IPA) 2014-2020 and through assistance from the Technical Assistance and Information Exchange (TAIEX). The funds has encouraged further development of the agricultural sector and the harmonization of national policies. However, this process remains a challenge in terms of achieving all the objectives set by the CAP.

Table 1 presents the main macroeconomic indicators of the Republic of Kosovo for 2010 and 2017.The aim of the analysis is comparison of the macroeconomic situation in the last seven years.

Table 1: Main macroeconomic indicators in Kosovo

Indicator	**Unit**	**2010**	**2017**
Total area	km^2	10 908	10 908
Population	000	2 181	1 772
Population density	inhabitants/km2	200	162
GDP at constant prices	mill. EUR	4 402	6 282
GVA at constant prices	mill. EUR	3 687	5 032
Economic growth	%	3,3	3,7
GDP per capita	EUR	2 480	
Inflation	%	3,5	1,5
Number of employees	(000)	-	357
Unemployment (%)	%	44	30,5
Total exports of goods	mill. EUR	296	378
Total imports of goods	mill. EUR	2 158	3 044
Trade balance	mill. EUR	-1 862	-2 666
Trade as a share of GDP	%	55,7	54,5
Share of food, beverages, cigarettes in household expenditure	%	35,0	
Exchange rate (1 EUR =)	EUR	1,00	1,00

Source: APM Database Kosovo

In 2017, there are positive development trends in parallel with the beginning of a recovery from the serious decline in gross domestic product (GDP) caused by the global economic crisis.

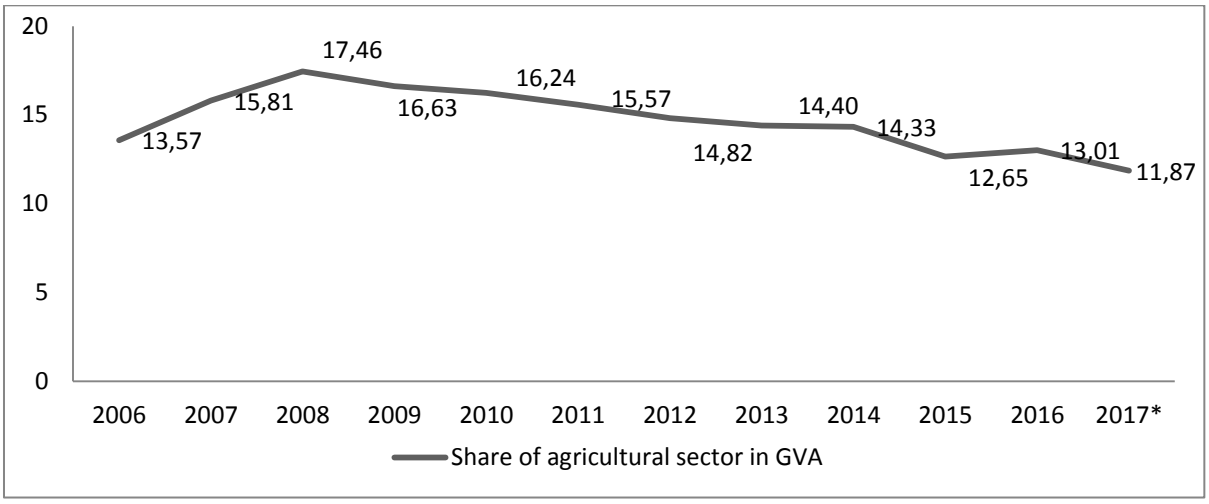
The data show an improvement in macroeconomic indicators, as inflation is low and unemployment rate is declining significantly, but it is still high. Economic growth is over 3%, but the country's GDP is still below 30% of the EU-28 average.

Despite the positive trends observed in Kosovo, the country should continue reforming and harmonizing legislation, as well as developing market relations and market economy and democracy. The country is registering positive changes in the right direction, but there are still a number of issues related to legislation, corruption and equality that need to be overcome in order to receive an invitation to join the EU.

The agricultural sector in Kosovo plays a very important role in providing employment opportunities and generating income. In 2015, the agricultural sector contributed 13.5% to GVA, about 27% to total employment and accounted for 12.8% of total exports (Agricultural Statistics Database - Kosovo).

The development of the agricultural sector in Kosovo is particularly important in terms of improving the trade balance, reducing unemployment rate and increasing food security and environmental protection.

Figure 1: Share of agriculture in GVA(%)



Source: Agricultural Statistics Database – Kosovo

The data show serious variations and a gradual decrease in the role of agriculture in the added value. The highest share of GVA is registested during the global economic crisis, which affects the country and reduces the role of the other two sectors. After 2011 there is a decline, but agriculture still remains an important sector in the country. It represents nearly 12% of GVA in the Republic of Kosovo, which is more than the EU-28 average and Bulgaria.

The important role of agriculture in the national economy also determines the need for reforms and effective agricultural policy in order to ensure sustainable and competitive agriculture in the Republic of Kosovo.

2.2. Agricultural policy in the Republic of Kosovo

The new programming document for agriculture and rural development in Kosovo was adopted on the basis of the EU's concept of rural development. The direct measures for support producers ARDP 2007-2013 correspond with the measures under Pillar I of the CAP, and the measures ofr support rural development are similar to those under the Pillar II of the CAP. The program document with the measures is implemented on the basis of the annual budget allocation for agriculture and rural development. The distribution of the total budget of the MAFRD for the various measures in the ARDP 2007-2013 follows only partially the general objectives for development of agriculture and rural areas (MAFRD, 2012).

Due to the unfavourable structure of agricultural holdings and the inefficient use of production factors, the yields of agricultural products in Kosovo are much lower than the average yields in the EU. In general, agriculture and the food sector face difficulties in developing food chains, marketing and quality, veterinary and phytosanitary standards compared to EU standards. In Kosovo the agricultural producer prices are significantly higher compare to the EU Member-States. Therefore the producers still have low price competitiveness. In the last few years, the negative trade deficit in agricultural products has been reported and and it is growing. New agricultural trade strategy have to be developed on the basis of a market analysis. The local producers and processors could make better use of market opportunities and also stabilize the employment and income situation.

Overall, rural areas in Kosovo have low economic development, which leads to high level of unemployment rate. The possibility to reduce the dependence of the rural labour force on the agricultural sector and the diversification of income in rural areas remain one of the most difficult tasks. In order to decrease the depopulation and poverty in rural areas, job opportunities need to be created by supporting activities such as the processing of traditional local food and niche products, as well as by promoting business initiatives in the provision of rural services.

Workshops should also be organized to promote women's entrepreneurship. Economic development in rural areas must be stimulated by improvement of infrastructure such as electricity, water supply, broadband internet.

The distribution of the budget and the level of support for agriculture and rural development for the period 2007-2014 is relatively low compared to other countries in the Northern Balkans and the EU. The increase of agricultural competitiveness must be accompanied by an increase in the budget for agricultural support. Competitive agriculture requires knowledge, information and management services. Training, technical and farmer/business management advices and information on the agricultural market in accordance with the specific needs of the country are prerequisites for the growth of agricultural production and increase the efficiency and competitiveness of the sector.

Promoting agricultural research will help to develop sustainable production systems, especially related to issues as climate change, biodiversity, rising food and biofuel prices. Although there has been no consensus within the CAP for several years on optimizing policies and instruments aimed at agri-environment payments, Kosovo should launch agri-environment payment schemes offering support for the sustainable use of natural resources, in particular for sustainable land use practices.

The less-favored areas have to be prioritized from policy-makers. As most farms (94%) are very small to 4 ha and the agricultural policy should found approaches for development of these farms. In order to increase the production and trade potential of small farmers, the finanal support for producer organizations based on the EU's Single Market Organization (Single CMO) will be the most important measure for the fruit and vegetable sectors. Due to large differences in production and price fluctuations, Kosovo have to implement risk management mechanisms by supporting private insurance.

Kosovo should compare its agricultural policy to the international best practices. Based on the Stabilization and Association Agreement (SAA), Kosovo is entering a new phase in the integration process. Therefore, the country should improve inter-agency and intra-ministerial

coordination, including donor activities, as well as to strengthen human resources for more targeted, long-term individual training.

Developed strategies and program documents in the Republic of Kosovo

The Ministry of Agriculture is developted the following main policy documents:

- The Agriculture and Rural Development Program (ARDP) 2014-2020 (MAFRD 2013)
- Mid-Term Expenditure Framework 2016-2018 (MF 2015)
- Economic Reform Program 2016-2018 (GoK 2016), which presents detailed medium- and long-term policy objectives, key measures, monitoring tools and policy costs.

The short-term policies are described in detail in the annual national program for agricultural and rural development and the relevant activities in the annual action plan.

The ARDP 2014-2020 based on the previous ARDP for 2007-2013, is addressing long-term goals and priorities in compliance with the CAP regulations and is linking the programming process to multi-annual rural development programs.

IPA II assistance helps Kosovo comply with the EU requirements. It facilitates improvement for operators and producers of agricultural and food products on regional and European markets; generation of employment and income in the agricultural sector; developing training, farm management and agricultural education and adopting measures to improve resilience and reduction of the effects on climate change.

Other objectives are to provide technical assistance to improve the data collection for all subsectors of agriculture and rural development. In this regard, the ARDP follows the four priority areas identified by IPA II (EU, 2014), which also define specific measures.

For 2014-2016, the MAFRD decided to implement only some of the ARDP measures presented in Table 2, while preparing for future implementation of other measures (M 501, M 401, M 402 and pilot measure M 201)

Overall, the ARDP program emphasizes an increase of farm competitiveness and access to the EU market as important opportunities to improve farmers' incomes in Kosovo.

Therefore, the development of new production facilities and higher competitiveness requires improved standards for marketing, packaging and quality.

Table 2: ARDP 2014-2020: priorities and measures

Priorities	**Measures**
Improve farm sustainability and competitiveness of all agricultural and agro-industrial products, along with continued approximation to EU standards	M 101- Investment in physical assets of agriculture households M 103 – investment in physical assets in processing and marketing of agricultural products
Recovery, protection and enhancement of ecosystem pertinent to agriculture and forestry	M 201- Agro-environment measures and organic farming M 202- Planting and protection of forests

Promote socio-economic inclusion, poverty reduction and territorially-balanced rural development	M 302 – Farm diversification and business development M 303 – Preparation and implementation of Local Development Strategies – LEADER
Transfer of innovations and knowledge in agriculture, forestry and rural development and strengthen the capacity of public administration in implementing rural development programme	M 401- Enhanced training M 402- Advisory services M 501- Technical assistance
Others	Irrigation projects

Source: MARF 2013

According to the latest European Commission analysis, only a negligible share of Kosovo farms and food processing factories are competitive to the EU and international markets (European Commission, 2015). The main reasons for the low competitiveness of agriculture in Kosovo are the predominant share of small farms, the high land fragmentation, limited access to credit and the lack of knowledge and implementation of new technologies.

The MAFRD with the assistance of international donors, is working on establishing the structures in line with the CAP and IPARD policies for the EU integration process.

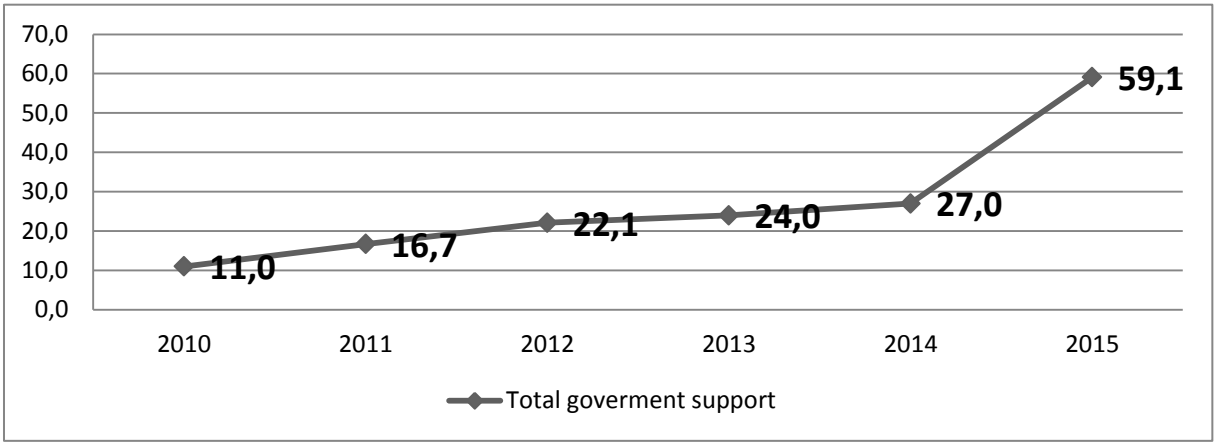
In an effort to strengthen alignment with the CAP, MAFRD has established an advisory services department that provides technical, economic and legal support to farmers (EU, 2015). MAFRD also has consultants at the municipal level. There are 79.7 million EUR directed to support the development of agriculture and rural areas, on the basis of which municipal information centres have been opened in each municipality in order to provide advice and support to farmers. The MAFRD has also developed a dedicated website that provides information on rural development and monitors grant schemes and subsidies based on the EU standards.

In addition, the authorities continue to implement and monitor subsidy schemes through the Agricultural Development Agency. Farmer, who are applying for grants and subsidies are registered through the Register of Farmers. This is a software system used by agricultural services in the municipalities and centrally by the MAFRD. This process of controlling and monitoring is based on the EU standards.

Evolution of agricultural policy

During the analysed period, budget support for agriculture in Kosovo increased from € 11.0 million in 2010 to € 59.1 million in 2015. In 2015, total agricultural aid more than doubled compared to 2014.

Figure 2: Total budget support for the agricultural sector (million euros), 2010-2015



Source: Agricultural Statistics Database-Kosovo

The increase in total support is mainly related to higher funding for direct support and for structural and rural development measures, while support for general services remains almost unchanged. The share of direct support to producers as part of total support varied between 31.9% and 47% in 2010-2015, followed by support for rural development (between 39% and 47%) and support for common services (between 6% and 29.1%).

The Direct producers support aims to increase agricultural production potential, farmers' income and to improve the competitiveness of the agricultural sector. The total budget transfer for direct support to producers increased from € 3.5 million in 2010 to € 15.2 million in 2014 and to € 27.8 million in 2015.

Direct support to producers is provided in the form of direct payments based on area or number of animals for specific sectors. Subsidies for production factors are granted only for fuel until 2013. Production payments have only recently been introduced (in 2013 for seedlings and in 2014 for milk), but their share of total direct support remains below 4 % during the period.

Rural development policy also plays a very important role in Kosovo's agricultural policy. This is primarily due to the specifics of the agricultural sector and rural areas in the country.

Rural development measures are directed to strength the competitiveness of food producers by supporting investment in production and processing industry, as well as by implementation of international food safety standards. In 2015, the budgetary transfers for implementation of rural development measures is € 27.8 million, compared to € 4.3 million in 2010. For the period 2010-2015, this support represents about 43% of the total budget support for agriculture.

Support for structural and rural development is mainly aimed at increasing the competitiveness of the agri-food sector. These funds have increased in recent years (from around € 0.1 million in 2010 to around € 1.8 million in 2015), but the share remains low, below 10% (6.5% in 2015).

These funds have been allocated for local capacity building (LEADER) and, since 2014, to support farm diversification and alternative activities in rural areas. Support for the

improvement of rural infrastructure and the maintenance of the rural heritage has not been implemented due to budgetary constraints.

Significant share of the budget for the agricultural competitiveness growth has been devoted to measures for the restructuring of agricultural holdings. Support for farm restructuring was implemented mainly in the form of investment support, focusing on several agricultural subsectors (poultry, fruit, vegetables and vineyards, milk and meat, cereals and honey). In 2015, investment in agricultural holdings increased significantly (from around € 3.5 million in 2010 to € 21 million in 2015). The observed trends indicate that there is necessarily to increase of the productivity, sustainability and quality of agricultural products.

Support for the restructuring of the agri-food sector is directed to processing and marketing of agricultural products. The support aims to improve the use of agricultural products by increasing higher value production; collection, packaging and storage centres; and the implementation of a food safety management system for analysis and critical control points in order to meet the EU requirements (Miftari and Hoxhaj, 2014).

The measures for restructuring the agricultural and food sectors did not change significantly during the study period. In the meantime, many projects implemented under this measure have also been supported by the EU funds.

Support for forestry restructuring was mainly targeted at afforestation and lasted until 2013. After 2013, no funds were allocated to this measure due to budgetary constraints.

Support for common services was relatively stable in 2010-2015 period, around € 3 million. More than 95% of this support was allocated to finance the improvement of food safety standards (veterinary and phytosanitary services) and only a small share of the funds was directed to technical assistance and vocational training in rural areas (EUR 0.1 million).

Vocational training of farmers is of great importance for the development of agriculture in Kosovo. However, the budget for these activities is still relatively small, compared to the large number of farmers interested in specialized training and education programs.

The number of direct payment instruments increased significantly between 2010 and 2015. In 2010, there were only four direct support schemes (for vineyards, dairy cows, dairy sheep and goats and fuels) and with the gradual implementation of new specific schemes for both crop and livestock production, this number increased to 15 in 2015. Some other payments also increased (for cereals in 2013 and 2015 and for dairy cows and sheep and goats in 2012 and 2015)

Coupled payments do not apply in Kosovo, although they are policy instrument under the CAP. Transforming the policy to this payment scheme remains a challenging task for Kosovo and should be done in short terms based on the 2014-2020 ARPD. In general, direct support for agriculture is important for Kosovo, as the sector is dominated by small farms.

Implementation of agricultural policy

The development of agricultural policy in Kosovo is largely guided by the prospect of the EU integration. As described above, agriculture is one of the most demanding and complex sectors in the Kosovo's policy implementation and in the EU legislation process.

The harmonization to the CAP regulations requires additional assistance from international donors to develop the regulatory framework and policies that would promote a competitive agricultural sector. Recognizing the importance of this process, the government has increased the budget support for the sector, especially after 2015.

Budget support for agriculture and rural development in Kosovo is described in detail in ARDP 2007-2013 and ARDP 2014-2020. Both documents were prepared in the same framework as the CAP. However, the resources for the implementation of the ARDP, especially for 2007-2013, were very limited and the priorities were mainly related to agricultural production and the competitiveness of the sector.

Under the 2016-2018 ERP, Kosovo allocates 50% of the total budget for subsidies and grants for measures under the Pillar I. In addition, the government continues to support investment projects (Pillar II measures) in 2016.

Significant progress has been made in improvement of agricultural infrastructure for agribusiness through the planned ERP reforms for 2016, in which the policy lead to better irrigation system (up to 40% arable land), developing market infrastructure, expanding the number of laboratories and implement an integrated agricultural information system.

The Ministry allocated EUR 2.1 million for irrigation projects in the public sector in 2016, and another EUR 1 million is planned as part of the rural development program for 2016, which is directed to private farms. However, the implementation of these measures will be a challenge, as it requires more financial resources than are allocated from the national budget, especially for projects such as those related to the consolidation of agricultural land.

According to the Action Plan of the Land Strategy 2010-2020, the implementation of these measures continues in 2016-2018 and more than 0.5 million euros per year are allocated from the national budget (MAFRD, 2010). Land consolidation as an integral part of rural development policy would help farmers, promote land market development and improve access to credit and investment.

Kosovo has been successful in preparing for the implementation of most IPARD II measures. However, promotion of the development of agriculture and rural areas, such as strengthening the productivity of farmers, achieving land consolidation, supporting organic farming, protecting the environment and forestry, and increasing technical assistance will require further reforms.

The development of agricultural policy in Kosovo in recent years has shown an important step towards harmonization with the EU standards. The main features of agricultural policy in Kosovo can be summarized in the following key findings:

• Kosovo has adopted long-term and medium-term strategic documents, such as the ARDP 2014-2020, the Medium-Term Expenditure Framework, the Annual National Program for Agricultural and Rural Development and the ERP, which point out the objectives and priorities for agriculture and rural development. The implementation of the programming documents and harmonization with the EU principles shows progress, mainly in strengthening the capacity of responsible institutions and increasing the budget.

• The funding for agriculture and rural development has increased in recent years, but is still too low to implement all required measures.

• The distribution of agricultural aid is equal between direct support to producers (Pillar I) and support for rural development (Pillar II).

• Direct support to producers increased significantly in 2010-2017 period and is targeted mainly in the form of area payments combined with payments for specific crops or payments for livestock per head.

• The main part of the support for rural development is oriented to agricultural competitiveness growth. However, there were no funds to support the improvement of rural infrastructure, the maintenance of cultural heritage or the improvement of the environment.

• Support for common services represents the smallest share of the total budget for agriculture and is directed mainly to food safety standards implementation.

Farmers in Kosovo face several constraints - fragmentation of land, old agricultural technologies, lack of diversification, limited production capacity and limited provision of technical assistance.

Although several reforms have been undertaken to address some of these issues (land consolidation, irrigation systems and organic farming), further efforts are needed to strengthen the implementation of the agricultural policy and increase the competitiveness of Kosovo's agricultural sector.

Other issues that need further policy action are environmental protection and less-favored areas. In addition, the system of direct support for agricultural holdings currently relies exclusively on coupled payments for crops and animals, while the accession to the EU will require the adoption of decoupled payments schemes. However, the development of agricultural policy in this direction will depend on the administrative and human capacity and the financial resources.

2.3 Evaluation of public support in Kosovo based on international indicators

The impact of public support in agriculture can be assessed through the application of various indicators. The OECD has a methodology in this regard and maintains a database with the indicators - Total budgetary transfers to agriculture (TSE) and PSE (Producers support estimate). Based on that different types of agricultural policies could be analysed. The data related to the public support in agricultural sector are presented in the following tables and graphs.

The results show a serious increase in producer's support. The total growth for the analysed period is over 6 times. After 2010 the implementation of the agricultural policy in the country began and each year the funds and measures are increasing. The largest share of the support is associated with the payments per hectare and or head. The amount of this funds arise over 7 times. The aid allocated for production factor support, such as fixed capital, is also increased significantly, but they vary though years and many fluctuations are observed. The share of the support for variable production factor is lower, and in the last year there has been support for general services.

Table 3: Budget transfers to agricultural producers 2010-2017 million euros

Indicators	2010	2011	2012	2013	2014	2015	2016	2017
Budgetary transfers to agricultural producers (PSEb)	6,8	9,1	14	16,6	18,6	47,9	37	42,7
A. Payments based on output	-	-	-	0,096	0,576	1,043	1,160	1,001
B. Payments based on input use	3,325	3,414	4,910	4,754	3,297	20,095	10,859	15,613
B.1. Variable input use	0,412	0,389	0,487	-	-	-	-	1,791

B.2 Fixed capital formation	2,913	3,025	4,423	4,754	3,297	20,095	10,859	13,756
B.3. On farm services	-	-	-	-	-	-	-	0,066
C. Payments based on current area/animal/receipts/income, production required	3,520	5,662	9,090	11,797	14,731	26,758	24,988	26,059

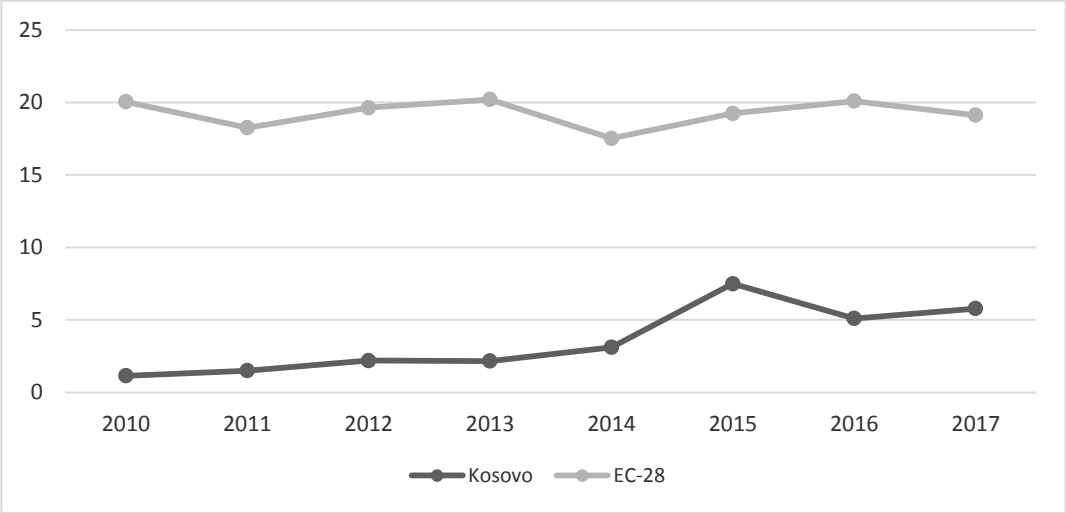
Source: SOK, OECD database

The purpose of this type of agricultural policy is to support production potential, to increase the production capacity of farms and help them modernize and implement new technologies.

An interesting comparison is held between the EU-28 and Kosovo based on the indicator PSE calculated as a percentage of gross farm receipts.

Gross farm receipts of agricultural holdings refers to the gross income of the farms during the fiscal year. This includes revenues from all agricultural products, government support payments and revenues from services. It does not include sales of forest products, capital assets (land, machinery, etc.) or any goods purchased only for retail sales. (OECD Glossary).

Figure 3: Producer support (PSE), % of gross farm receipts, 2010/17, EU-28 and Kosovo



Source: SOK, OECD Agriculture Statistics: Agricultural support estimates (Edition 2019)

The data show significant support in the EU-28 and presents the main reason for low competitiveness of Kosovo agriculture on European markets. Although the support in the country is serious, the data show the strong dependence of the EU agriculture on subsidies and support in various forms. It should be noted that the data are similar in the other OECD members. Protectionist policies and support for the agricultural sector are widely applied. Despite lower levels of support, if it good targeted and effective, could improve Kosovo agricultural production potential.

The other elements of the indicator “Total budgetary transfers to agriculture” are presented in Table 4.

Table 4: General Services Support Estimate (GSSE)

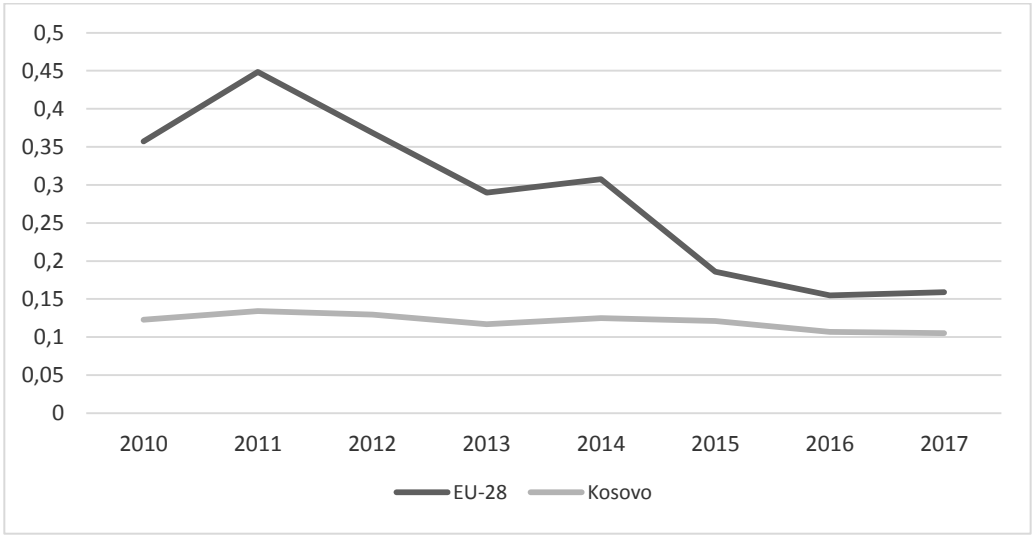
Indicators	2010	2011	2012	2013	2014	2015	2016	2017
General Services Support Estimate (GSSE)	3,802	7,381	8,174	6,802	8,269	10,944	6,769	8,078
Agricultural knowledge and innovations system	0,070	0,082	0,136	0,127	0,113	0,119	0,120	0,126
Inspection and control	3,126	2,314	2,640	2,796	3,274	3,417	4,030	7,172
Development and maintenance of infrastructure	0,605	4,985	5,399	3,880	4,882	7,409	2,619	0,780

Source: SOK

The funds for GSSE are lower and some variations in the indicators are observed. There has been an increase in support of more than 3 times, but investment in research and development is insufficient, and there are significant fluctuations in infrastructure investment. The share of funds invested in inspection and control is higher, which is a positive trend and would help Kosovo to meet international food quality and safety standards.

Figure 4 gives another interesting comparison between the GSSE as a share of total transfers to the agricultural sector in Kosovo and the EU-28.

Figure 4: General services support (GSSE), % total agricultural support, 2010 – 2017, Kosovo and the EU-28

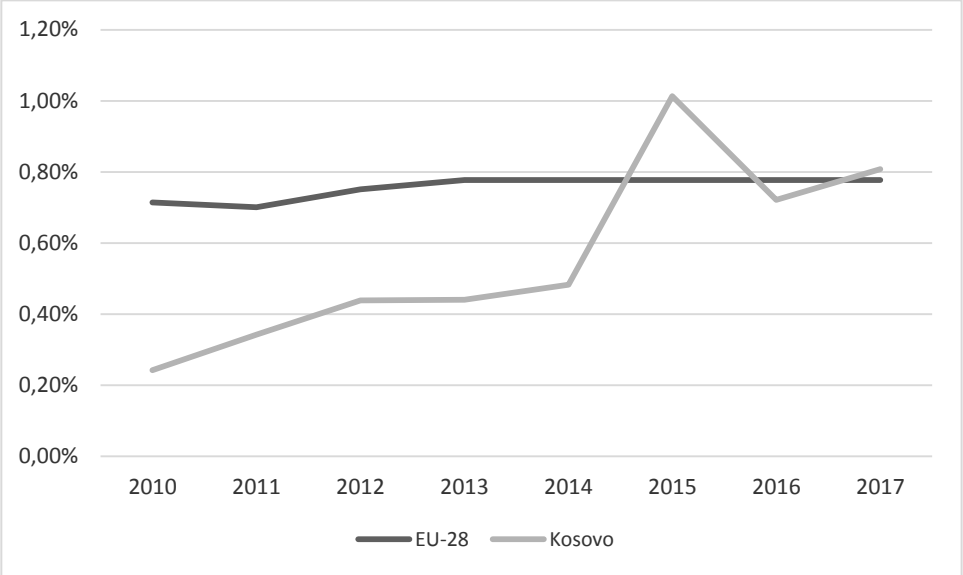


Source: SOK, OECD Agriculture Statistics: Agricultural support estimates (Edition 2019)

Based on the data some conclusions can be drawn. First, when support in Kosovo is significantly lower, general service support represent higher share in the total support. With the increase of the funds, the share of these indicators decreases and is close to the EU-28. In 2017, in the EU-28, the share of general services in total support is about 11%, while in Kosovo it - 15%. However, it should be noted that there is a significant difference between the EU and Kosovo support. The funding in the EU is much higher.

The last indicator presents a comparison between Kosovo and the EU-28 in another key area. It provides information related to the share of total agricultural transfers in GDP.

Figure 5: Total support estimate (TSE), % GDP, 2010 – 2017



Source: SOK, OECD Agriculture Statistics: Agricultural support estimates (Edition 2019)

Based on the data it can be concluded that there is serious dynamics and significant growth of total support in Kosovo GDP. The results related to the EU show stability and no fluctuations. However, there is much higher GDP in the EU-28 and which should be taken into account.

It can be summarized that the agricultural support in Kosovo is growing, in parallel with the share of agricultural transfers in farm income and GDP. However, the important question is related to the effect of this support and is it directed to sustainable development, innovation and competitiveness.

2.4. Analysis of the impact of agricultural support

The assessment of public support and its impact on the sustainable agricultural development of Kosovo is based on the Policy Analysis Matrix (MAP) developed by Monke and Pearson (1989). The model allows to study both the level of competitiveness in the individual sectors of agriculture and the impact of public support on sustainable development. The analysis is based on own research. Therefore a questionnaire has been developed.

The survey includes 30 farms, 95% of which are located in the Istog region, Peja. The study is divided into several stages. Firstly, a description of the Istog area is made, secondly, the characteristics of the farmers and their holdings are observed. Based on the selected data policy analysis matrix are developed. The information from the matrixes is used for calculation of specific coefficients. They evaluate the impact of institutional support on agriculture in Kosovo.

Characteristics of farmers and holdings

The survey is conducted in 2019 and includes 30 farmers, 86.7% of which are men. Kosovo is characterized by a low share of women farm managers. Most women are involved in production and help on the farm, but they are not registered as farm managers. Based on the analysis, descriptive statistics is developed. It is divided into two part - a characteristics of farmers and a characteristics of agricultural holdings.

Table 5: Characteristics of farmers, 2019

Indicators	Education	Age	Experience	Participation in organizations
Mean	2,47	39,07857	16,5	0,5
Median	2	42	15,5	0,5
Mode	2	52	10	0
St. Dev.	0	10,78	9,02	0,51
Minimum	2	24	5	0
Maximum	3	62	44	1
Count	30	30	30	30

Source: Own survey

Based on the data some conclusions can be highlighted: First, farmer's education is predominantly secondary. This differs from the country's low educational level and lack of specialized knowledge and experience. Secondly, the average age of farmers is 39 years, which is a young age structure. Thirdly, the experience of farmers is around 16.5 years, which in parallel with the young profile of farmers. Fourth, the ratio between participating or not in some kind of association is 60:40. This results do not correspond with national average. It should be noted that crop producers participate more in associations, while livestock sector lags far behind. The characteristics of farmers show that they are young, with experience, majority with agricultural education. Some of the results do not confirm the registered trends at national level, but it should be noted that the sample is only in a certain region with 30 producers.

The characteristics of agricultural holdings are presented in Table 6.

The average size in hectares is 72 hectares, which is quite a high compare to national average, but the region is agricultural which should be taken into account. The LSU of is lower 34 LSU, and livestock sector is represented mainly by dairy cows and calves.

The specialization is analysed by a scale from 1 to 5, where 1 is a crops- monocultures, 2 - mixed crops- 3 - livestock, 4 - mixed livestock, and 5 – mixed crops-livestock . Majority of the surveyed farms have a mixed crop and livestock specialization. The usual combination is between cereals and dairy farming or beekeeping and orchards.

Table 6: Characteristics of agricultural holdings, 2019

Indicators	Size, ha	Livestock units	Access to RDP	Specialization
Mean	72,13167	34,8	0,5	3,192308
Median	25,5	24,5	0,5	3
Mode	#N/A	10	0	5
St. Dev.	111,41	28,35	0,51	1,49
Minimum	1,1	7	0	1
Maximum	450	85	1	5
Count	24	10	30	30

Source: Own survey

In regards of receiving support under the RDP, the ratio is 60:40 and most of the interviewed farms do not rely on support under this program.

Based on the data, the farms have a large average size and a predominant mixed specialization. These characteristics generally do not correspond to the registered national

trends. However, it should be emphasized that this is a small sample in a certain agricultural region.

Impact of public support on sustainable development

In order to improve production potential and competitiveness as a prerequisite for increased sustainability, it is important to monitor the level of efficiency. Economic efficiency is one of the indicators that very accurately represent the productivity, allocation of resources and the results of the agricultural holdings.

The evaluation of the indicators in the study is carried out by monitoring their changes in the two main agricultural sectors - crop production and livestock.

Public support in crop production

Figure 6 presents the changes in efficiency at private and social prices in the main crop sectors. Private efficiency is calculated as the ratio of revenues and costs at private prices, while the second indicator is calculated at social prices and is called social efficiency.

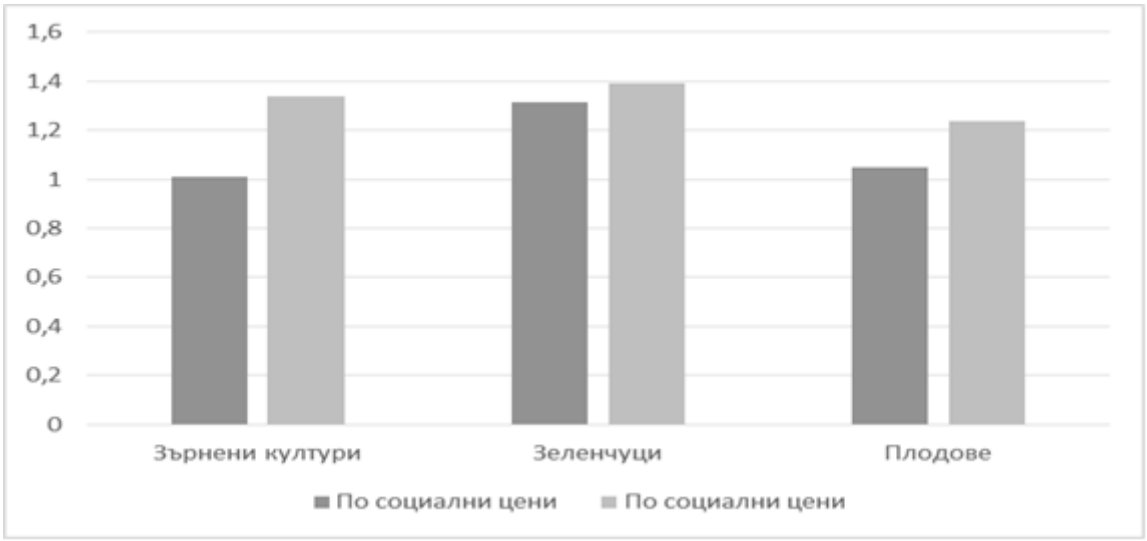
Based on the data some basic conclusions for the development of the crop sector can be drawn. First, the highest private efficiency is in vegetable production, while the lowest results are registered in the cereals. The data indicate issues related to the consolidation, concentration and economies of scale.

The market efficiency of fruit sector is relatively high, however, these results are hesitant. The lost comparative advantages due to the low productivity of the factors are main reasons for the observed trends.

In terms of social efficiency, the highest results are again in the vegetables sector. However, other trends are very interesting- the high levels of social efficiency in cereals. The difference between private and social prices is the highest in this sector - 24.4%.

Despite the registered increase in public support, it covers an insignificant part of the costs in the intensive sectors and cannot compensate the insufficient growth of average yields and the hesitant results in fruit sector. On the other hand, results in vegetable production are better.

Figure 6 : Social and private efficiency in crop production (%)



Source: Own survey and SOK

Other indicators reflecting the impact of public support on the sustainable development and competitiveness are presented in Table 7.

Table 7: Public support in crop production

Indicators	Cereals	Vegetables	Fruit
Nominal protection coefficient on tradable outputs NPCO	0,803972818	0,95972073	0,869565217
The Nominal Protection Coefficient on tradable inputs NPCI	1,049488461	1,000870568	1,007755384
Nominal Protection Coefficient NRP	-0,196027182	-0,04027927	-0,130434783
Effective protection coefficient EPC	0,766061608	0,958885955	0,862873303
Domestic cost ratio DRC	0,437228182	0,546872968	0,660234508
Private profitability PP	0,011842105	0,314631126	0,050889315
Social profitability SP	0,339870425	0,390330409	0,234932481
International competitiveness ratio IRC	2,287135279	1,828578222	1,514613349

Source: Own survey and SOK

Nominal Protection Coefficient is defined by the ratio of domestic price to the social price and can be calculated for both output and input.

Domestic and tradable inputs are crucial for the development of the production system, as they affect the efficiency and competitiveness. The indicator presents the competitive abilities and the opportunities for development of the sector.

In crop production, results consider the subsector as a competitive. The higher results are registered in cereals, while the greatest fluctuations are in fruit production. However, positive trends are observed.

The competitiveness of the agricultural sectors is crucial for its development. The last indicator is the international competitiveness ratio. This coefficient is calculated as the ratio between the revenues and domestic inputs at social prices.

In all sector the results show international competitiveness. These data reflect a relatively good return on participation in international trade. It should be noted that the coefficient proves the key role of agriculture in Kosovo's international trade. The international competitiveness of cereals and vegetables is the highest. Significantly higher levels of the indicator in extensive production show the export-oriented strategy of the sector.

Competitiveness and efficiency depend on public support in the agricultural sector. The impact of this support is related to the financial flows and their costs (Alexiev, 2012). In order to analyse these components, two indicators are applied- nominal and effective protection coefficients.

The nominal protection coefficient is calculated by comparing the revenues at social and private prices. If the values of the indicator are positive, there is public support for the consumers of the products, while the negative values indicate the existence of indirect or direct subsidies for the producers. Based on the results it can be concluded that there are negative values in all sectors of crop production. Secondly, higher levels of support for extensive crops are observed.

The effective protection ratio reflects the impact of public intervention on the level on results in individual agricultural sectors. It represents the relationship between value added at private and social prices. EPC value greater than 1 indicates positive protection of value

added by producers, while effective taxation of value added by producers is indicated when EPC is less than 1.

EPC shows similar trends. Values less than 1 are recorded for all sectors of the crop production. However, it should be noted that there are differences between extensive and intensive production.

Private and social profitability are also important as an economic component of sustainable development. They are ration between the profit at social and private prices with their respective costs. The results show that the best results of private profitability are registered in vegetable production.

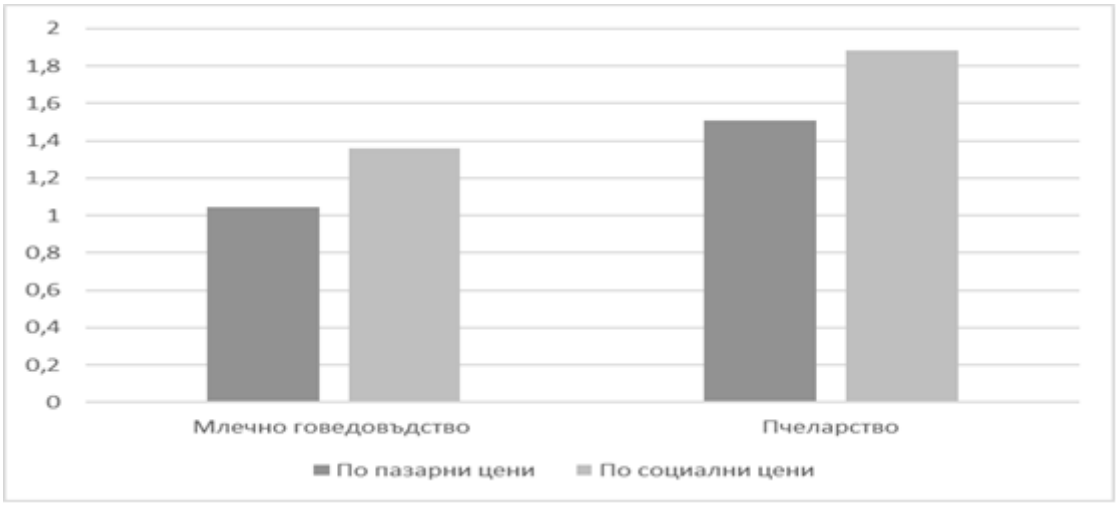
Public support in livestock

The study of the impact of public support on sustainable development follows the analysis of the crop production. Figure 7 presents the efficiency calculated at private and social prices in two selected sectors.

Comparison between crop and livestock production is difficult and it can only be indirect, as the elements of the PAM are calculated differently. The beekeeping and dairy farming are also difficult to compare, but some trends can be surveyed and conclusions be drawn.

The private efficiency in beekeeping is significantly higher than in dairy cattle where the levels are slightly above one. This means that the first sector is more competitive. The difference between private and social prices is respectively 22.8% in cattle breeding and 19.9% in beekeeping.

Figure 7: Private and social efficiency in livestock



Source: Own survey and SOK

The highest growth in the level of social efficiency is registered in cattle sector.

The interviewed farmer are only 30 and therefore did not provide sufficient data for other livestock sectors. In general, it can be concluded that goat and sheep breeding are lagging behind cattle breeding. The farm in these sectors are semi-subsistence and small.

The selected indicators in livestock are presented in Table 8.

The first indicator is related to the domestic factors. The results of the analysis show that the livestock sectors are competitive. The ratio is close to one in dairy farming, but still competitive.

The trends in coefficient of international competitiveness are similar and show the opportunities for improvement of the international specialization and sustainable

development. In all sectors the results indicate competitiveness growth. The values are lower in the cattle sector, where the standards, requirements and regulations are the highest. The coefficient for international competitiveness presents the better positions of the livestock on the international markets.

The impact of institutional support on the production potential and opportunities for sustainable development are presented by the two indicators - nominal and effective protection coefficients.

The nominal protection coefficient reflects the ratio between the revenues at private and social prices. In the two sectors, positive values are registered. Therefore it can be concluded that there are direct and indirect subsidies for producers.

The effective protection coefficient shows the relationship between the added value at private and social prices and reflects the impact of government intervention on revenues and profits. The results show that there is producers support.

Table 8: Public support in livestock

Indicators	Cattle sector	Beekeeping
Nominal protection coefficient on tradable outputs NPCO	0,784471938	0,846153846
The Nominal Protection Coefficient on tradable inputs NPCI	1,010433994	1,032208589
Nominal Protection Coefficient NRP	-0,215528062	-0,153846154
Effective protection coefficient EPC	0,776371285	0,819750829
Domestic cost ratio DRC	0,564538446	0,295069337
Private profitability PP	0,047068209	0,508226691
Social profitability SP	0,357484787	0,884057971
International competitiveness ratio IRC	1,771358543	3,389033943

Source: Own survey and SOK

Private and social profitability represent trends similar to economic efficiency. The results register greater level of support in cattle breeding and its strong dependence on institutional support.

Based on the calculated efficiency indicators at private and social prices, as well as the coefficients in the sector and the impact on the sustainable development, several conclusions can be made:

First, the results show changes in Kosovo's agricultural policy. These transformations are stimulating transformation, but lead to development of monoculture agriculture.

Secondly, there are investments in agricultural machinery. However, the process is slow and not equal in all sectors.

Thirdly, the results in livestock suggest more balanced development of the individual sectors, but they lag far behind the extensive crop production.

Fourthly, it can be concluded that the public support leads to increased efficiency, especially in extensive production and cattle breeding. Intensive sectors have difficulties in meeting the EU requirements.

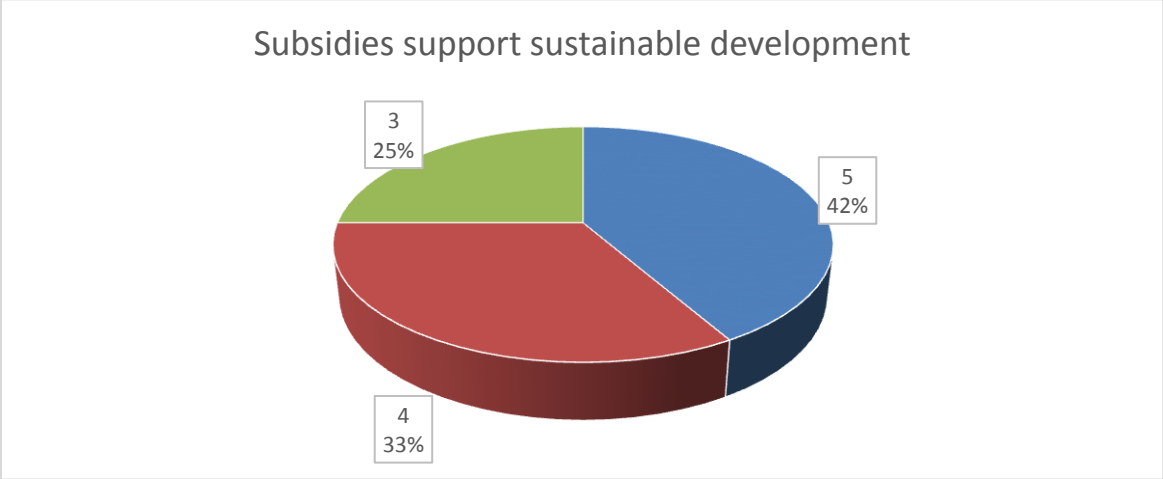
CHAPTER 3: INSTITUTIONAL OPPORTUNITIES FOR SUSTAINABLE AGRICULTURAL DEVELOPMENT IN KOSOVO

3.1. Opportunities based on the national characteristics of Kosovo

Based on the findings of the EU and World Bank reports, the questionnaire is presented. It includes questions concerning the main factors, benefits and obstacles that direct support provide. Based on four sets of questions, important conclusions related to Kosovo's sustainable development opportunities are drawn.

The questions in the questionnaire in this part of the study are based on a scale from 1 to 5(1 = strongly disagree to 5 = strongly agree).

Figure 8: The role of subsidies for sustainable agricultural development



Source: Own survey

The first question of the survey is related to the main issue in the dissertation – the role of subsidies for sustainable agricultural development. Over 42% strongly agree that subsidies supports economic sustainability in the agricultural sector. Another 33% agreed with this statement. There are no farmers who believe that direct support does not contribute to sustainable agricultural development. These results prove the key role of subsidies in economic efficiency, profitability and farmers wellbeing.

The second group of questions observes the factors that are most important for the sustainable agricultural development.

According to interviewed farmers the most substantial of these factors are fair competition and simplification of bureaucratic procedures. These results show serious obstacles in the Kosovo related to the informal economy on the one hand and the lack of awareness about the support measures and schemes. The level of administrative capacity is still low, which requires serious efforts, training and advice services. The access to new technologies and the higher subsidies are also important for the farmers.

The insignificant investments in the sector are still an obstacle to the competitiveness and economic sustainability. The importance of the statement related to higher subsidies is not surprising, as farmers tend to think that financial support is insufficient. However, the targeted support and reorientation of the priorities of the agricultural policy can also be emphasized. Kosovo has not started to adapt to the CAP framework, which is an obstacle for the integration into the EU.

Table 9: Factors for sustainable agricultural development

Factors	Very important	Important	Neutral	Slightly important	Not at all important
Access to land	50%	20%	20%	6,7%	3,3%
Access to credit	46,7%	23,3%	23,3%	6,7%	0%
Simplification of bureaucratic procedures	83,3%	13,4%	3,3%	0%	0%
Better position in the value chain	50,0%	46,7%	3,3%	0%	0%
New technologies	66,7%	33,3%	0%	0%	0%
Fair competition	93,3%	6,7%	0%	0%	0%
Higher subsidies	76,7%	10,0%	0,0%	13,3%	0%

Source: Own survey

The access to credit and land have the lowest ranking. The problems with fragmentation are serious, but the question may have misled some of the respondents. As for access to credit lowest results could be explained with the focus of farmers on receiving a higher subsidies. Therefore credit is not seen as an investment opportunity due to more limited access. The results at the end of the study confirm this finding.

The third group of questions focuses on the main benefits of direct support, primarily on the economic component of sustainability.

Table 10: Benefits of direct support for sustainable agricultural development

Benefits	Very important	Important	Neutral	Slightly important	Not at all important
Greater production potential	53,3%	43,3%	3%	0%	0%
Higher efficiency	53,3%	30,0%	10%	6,7%	0%
An increase of agricultural income	53,3%	40,0%	6,7%	0,0%	0%
Actions against climate change	3,3%	6,7%	10%	10%	70%
Cost reduction	43,30%	26,70%	20%	10%	0%
Provision of public goods	6,7%	50%	13,30%	13,30%	16,70%
Maintaining of biodiversity	0%	20%	13,30%	16,70%	50%

Source: Own survey

According to the interviewed farmers the greater production potential is the most important benefit. The expansion of agricultural holdings in the country is necessary due to their small size. Farmers consider direct support as an opportunity to increase their production. Higher efficiency and increased income are the other two alternatives, which are ranked second and third. Their percentage is much lower compare to the first factor, and the results are similar to the "cost reduction" option.

The results of the benefits associated with the provision of public goods are the lowest. However, it is considered important by a large number of respondents. The awareness of the importance of public infrastructure is the first step towards its improvement. Kosovo has a low level of infrastructure and public goods. However, these options are associated with the measures under Pillar II and subsidies are not an important source of support in this regard.

The results of the two options related to environmental sustainability are quite different, because farmers conceive that direct payments do not support the actions against climate change and the maintains of biodiversity. In addition, they consider these two options as not very important.

The results of the survey show a number of challenges that Kosovo is facing. Firstly, the Environmental Strategy has not yet been updated and implemented. Lack of compliance with the Environmental Liability Directive undermines the effectiveness of environmental protection. Air quality continues to be a major threat to human health and serious actions have to be taken to improve it. In particular, the implementation of the Plan for Greenhouse Gas Emissions reduction adopted in 2018. Air quality strategy is not applied. An Air Quality |Action Plan must be adopted.

Some progress has been made in nature conservation, in particular through the adoption of the Biodiversity Action Plan for the period 2016-2020. The mapping of natural habitats is important, but the identification of Natura 2000 sites is still at a very early stage due to lack of technical and human capacity in the institutions. Spatial planning documents and infrastructure plans must ensure compliance with nature protection obligations, especially in already protected areas such as national and regional parks and potential Natura 2000 sites.

The Climate Change Strategy and Action Plan 2019-2028 has been approved by the government. If they are fully implemented, they can provide a solid basis for combat of climate change. However, no progress has been made in harmonizing legislation. The National Council for the Environment and the National Coordinator for Climate change have not taken concrete measures to integrate climate actions or raise the public awareness. There is little evidence that actions against climate change are involved in government projects. Although Kosovo is not a part to the United Nations Framework Convention on Climate Change and therefore does not have a nationally defined contribution to the 2015 Paris Agreement, the full implementation of national climate change strategy should help to archive the UN Framework goals.

The fourth group of questions addresses the main obstacles to sustainable agricultural development. Two main problems are identified by the interviewed farmers – corruption and access to credit. These are two obstacles are a serious challenge to agriculture in Kosovo.

The administrative capacity building and the regulations improvement are a basis for production potential growth, higher competitiveness and economic sustainability. Corruption, on the other hand, is a factor that ranks first among producers.

Access to credit is a serious problem in Kosovo, with interest rates higher than in other countries and bank sector that is not offering many opportunities for the producers. Small farmers are less attractive to financial institutions. Transaction costs are high due to small loan, geographical dispersion, higher risk and lack of fixed assets. In Kosovo, although total bank credit to the private sector has grown significantly, credits are dominated by the commercial sector.

Table 11: Main obstacles to sustainable agricultural development

Obstacles	Very important	Important	Neutral	Slightly important	Not at all important
Land fragmentation	53,3%	30,0%	10,0%	6,7%	0%
Corruption and bureaucracy	93,3%	6,7%	0%	0%	0%
Low quality	50%	20%	20%	6,7%	3,3%
Limited access to credit	83,3%	16,7%	0%	0%	0%
Low level of financial support	43,30%	26,70%	20%	10%	0%
Low level of education	6,7%	50%	13,30%	13,30%	16,70%
Low level of investments	73,3%	16,7%	6,7%	3,3%	0%

Source: Own survey

According to the surveyed farmers another major problem is the limited investment. The implementation of new technologies, the modernization and the application of new varieties, are important for sustainable agricultural development. Based on the farmer's opinion the lack of these factors is a major obstacle to the sustainable agricultural development in Kosovo.

The lack knowledge and limited adoption of innovative agricultural technologies lead to a preference for traditional seeds (or breeds, in livestock) and limited or no application of chemicals and fertilizers or veterinary services, leading to inefficient production and low efficiency. The old agricultural machinery and / or lack of mechanization services make difficult for farmers to apply modern technologies. Although there are a number of measures to increase farmers' access to agricultural machinery, demand for these machines is still low.

Irrigation systems also are old and do not provide adequate water control. In regards to climate change, the lack of a reliable irrigation system reduces productivity and discourages investment in modern technologies.

Low level of subsidies and land fragmentation have been identified as important barriers, albeit significantly lower ranked. Land fragmentation and unsettled property rights are an obstacle to land consolidation. Small farms are associated with low productivity and low opportunities for financial support. Legislative actions are needed to address these challenges.

Subsidy program in Kosovo has adopted the CAP approach, but there are a number of measures that need to be taken in order to integrate to the European Union requirements. The main purpose of the subsidies is to increase the agricultural production in Kosovo, which is possible if local producers can compete with international producers.

As international experience shows, subsidies are easy to be introduced but difficult to eliminate. The subsidy scheme must be accessible to all farmers. The choice of specific crops or animals as a target for direct payments discriminates other sectors that may be more profitable (although in recent years the government has already expanded the list of recipients of direct payments). In addition, the application of thresholds as eligibility criteria motivates the farmers working below these thresholds to exceed it.

On the other hand, small farms continue farming business and not to let their land be used by larger farms, which could benefit from economies of scale. Therefore, the eligibility criteria must not discriminate small farms and benefit only larger agricultural enterprises in order to achieve production growth and cost reduction.

There is insufficient information from farmers on how subsidy schemes work. During the discussions, participants complained that subsidies were not always paid as they expected. In general, farmers and processors are of the opinion that the government should provide higher subsidies.

The educational level of farmers in Kosovo is relatively low. It should be noted, however, that a large part of the interviewed farmers have higher agricultural education, which explains why in the survey this factor is not pointed out as an obstacle to sustainability.

3.2. Sustainable development based on sectorial characteristics of agriculture and its structural features

Based on the analysis, Kosovo's agricultural sector is divided into two main ways - at sectoral and structural level, and on this basis the main opportunities for sustainable development are formulated.

The first distinction is at the structural level and presents the following types of farms:

- *Micro farms*

This type of structures represents a large part of the farms in Kosovo. They are up to 0.5 hectares. Agriculture is not a sufficient source of income and therefore their standard of living depends on other sources. These farms are mostly located in mountainous areas. Farmers have limited knowledge of new technologies and secondary or lower education. Due to these characteristics, such farms have limited growth potential.

Opportunities: These farms have small production potential and therefore should focus on growing vegetables or fruits, establishing producer organizations in order to ensure better positions in the value chain.

- *Small farms*

This type of farmers form farms between 0.5 and 1.5 hectares or 1-3 LSU. The farms are not consolidated and divided into several plots. (5-8 plots). These are the predominant structures in Kosovo agriculture. They are characterized by a lack of initiative for investment due to the small size, deteriorating age structure and other limitations associated with their location. They have limited market knowledge and lack of technical experience. These farms also generate income from other activities, including collecting of wild fruits. This type of farms do not have a clear focus, but are looking for new opportunities. They have a much greater potential than the previous type.

Opportunities: They have limited access to credit, frequent borrowing from relatives or short-term credits. For this type of farms the possibilities are similar to previous farms. Options are related to vertical integration or engagement of more family members and relatives and building a larger family farm. The integration with other farms would provide opportunities for access to international markets and better market orientation.

- *Medium farms*

This type of structures are 1.5-5 hectares or 4-20 LSU. They participate in a very short market chain - either direct sales or sales in local markets. They often have other sources of income, as the farm is not large and the land is in several plots. There is a lack of knowledge about different sales approaches and insufficient knowledge about the market. Such farms tend to copy the behaviour of other structures.

Opportunities: These farms have better property rights. Therefore they should be encouraged to produce crops with high value added and increase their size. They need

additional funding in marketing and distribution in order to expand the marketing channels and improve the access to markets.

- *Cooperatives and commercialized farms*

This type of structures have a size of more than 5 hectares or 30 LSU. They have enough knowledge and willingness to invest due to their larger size. They also have better opportunities and competitiveness on regional and international markets. These farms have contracts with processors, but they also want to become processors. They are consolidated and rent land. These structures do not pay enough attention to marketing and sales.

Opportunities: Development and expansion. The greatest possibilities are associated with adding values through processing. Such farms relay on credits, which requires them to register their business. They must pay attention to food safety and quality standards if they want to increase their competitiveness and position on regional and international markets.

- *Privatized cooperatives (former post-socialist farms)*

This type of farm should be the engine of agricultural growth in Kosovo, but they are not processors. Their serious problems are related to the lack integration and the fact that they remain mainly in the primary sector. They have a significant land. These farms have contracts with processors and other actors in the supply chain. They do not have an experienced management or qualified staff. Some managers come from other sectors. This leads to the production without infrastructure for them. These farms are associated with mass privatization in the country. They rely heavily on grants from the government and other donors. There are positive examples that are of great importance for the improvement of the regional rural economy. They have ambitions to develop in the supply chain.

Opportunities: Credits for investment are not great opportunities due to lack of collateral. They are strategically important, but need qualified staff. Investments should be directed in improving infrastructure, technology and expansion. Greater efforts and investments in better quality and adapted to the EU standards. They need training and knowledge of the market in order to increase their competitiveness and access to the EU markets.

The second distinction at sectorial level:

- *Meat sector*

It is characterized by a small number of farms and lack of contracts and long-term integration between farms and processors. There are few large processing companies. The EU standards are not taken into account and harmonization of the sector is necessary.

Opportunities: Investments in machines and equipment are needed. There is a potential for production growth and adoption of the EU legislation. Investments in human capital and marketing and promotion should be made. This sector faces a number of challenges and have to be prioritized in order to increase competitiveness and achieve sustainable development.

- *Dairy sector*

In Kosovo the registered dairy farms are 8,200. The largest investments have been made in milk production. As a result, there are a large number of small dairies, privately owned, specialized mainly in traditional dairy products (e.g. local cheese). Kosovo has 43 registered dairies and 41 are active. The sector is concentrated in 10 larger dairies, which produce about 1 million litres per year. The quality of the milk is low and there is a high demand of the product, which is not satisfied by the local producers. The market is characterized by strong competition from international dairy products.

Opportunities: Improving milk collection. Investments in new facilities and technologies are necessary in order to increase the quality of milk. Diversification and development of new products, as well as better marketing and promotion.

- *Vegetables and fruits*

This sector is still developing, but shows significant potential and opportunity to replace import products and achieve comparative advantages on international markets. The negatives are related to the limited processing capacity and the lack of high quality. Education and practical experience in the sector are low. Only soft fruits are exported to the EU Member-States.

Opportunities: Investments in equipment for sorting and processing of products are important. Production of seedlings and investments in irrigation systems and storage areas should be done. The diversification, integration, and contract farming and producer organization are substantial for sustainable development.

- *Cereals*

A number of farmers in Kosovo are specialized in cereal production. Cereal prices have been steadily declining over the last six years, making production less profitable and average yields lower. Land fragmentation and property rights issues exacerbate the situation and opportunities for expansion. Both the productivity and the income of the farmers are decreasing. Processing companies, on the other hand, do not have a good infrastructure.

Opportunities: Diversification, adding value through processing, improving quality and investing in storage facilities.

- *Medicinal and aromatic plants*

This sector do not have producer organizations and commercial production. On the other hand, there is a system for collection and semi-processing. There is a lack of serious competition in the regional markets, and in addition the production has the potential to become organically certified, which will improve the competitiveness. The sector has significant export potential. Only about 10% of wild herbs are harvested, which shows the production capacity of the sector.

Opportunities: Investments in dryers and other processing equipment are needed. Organic certification measures must be taken. Opportunities are also rated to processing of the medical and aromatic plants.

- *Viticulture and wine sector*

The sector is characterized by a dualistic structure - large, recently privatized wineries and small private structures. There are not enough farms specialized in this sector. It is observed low quality of production quality. The market is characterized by limited consumption and lack of specific and diverse varieties. On the other hand, there is significant competition from importers.

Opportunities: Standardization and quality. Investment in equipment and development of new products. Training and human capacity building. The necessary financial support has to be directed to marketing and branding.

III. CONCLUSIONS AND RECOMMENDATIONS

Based on the analysis, the following main barriers to the sustainable agricultural development of Kosovo can be outlined:

• Lack of market access and market opportunities. The market in Kosovo is limited and entering new foreign markets is a challenge. There are some positive trends in fruits and medicinal and aromatic plants, where market opportunities have been identified and processors are working on education and food safety standards.

• The potential of small farmers is untapped. Farmers in Kosovo have an average of 1.5 hectares, divided into 5-8 plots. Therefore their competitiveness is low, but if they are organized in different types of organizations and associations, better results can be expected.

• Lack of information and knowledge. Kosovo has good access to information from the EU and the region, but experience and knowledge are limited. The higher education will help in developing of the agricultural sector.

• Implementation of new technologies. In recent years, international projects have stimulated best practices and the use of new technologies in agriculture. Positive results should encourage farmers to use new varieties and breeds, new technologies and information technology solutions in agriculture.

• Irrigation systems. Kosovo farmers use only 30-40% of existing irrigation capacity. Improved use of irrigation and water resources is one of the most important problems in agricultural sector.

• The development of land market is one of the main challenges facing Kosovo's agriculture. Non-transparent land ownership is a serious problem in this context.

• Financial support in the agricultural sector is still low. Banks in Kosovo do not support agricultural loans, due high risks, low profitability and collateral problems. Agricultural insurance will reduce the risks. However, more information and knowledge are needed to increase the number of loans and the sector's participation in the wider portfolios of banks.

• High transaction costs in market organization and trade: High transaction costs make it difficult for agricultural enterprises. The reasons are associated with a lack of producer organizations and professional associations and appropriate standards.

• Low level of public services and institutional capacity. Business consulting services are also needed, because of low managment and marketing skills among both producers and agricultural enterprises which reduces their market opportunities. Low institutional capacity hinders the government's implemention of effective policies and services.

• Inadequate public investment: Lack of investment in electricity supply requires higher production costs for processors and producers. In many rural areas, poor transport and communication infrastructure is also an obstacle. The lack of public marketing infrastructure, such as wholesale markets, increases transaction costs and also reduces market opportunities. Poor marketing infrastructure leads to overcrowding in the small domestic market during the harvest season, which lowers prices.

•No policy actions against climate change. Insufficient commitment and awareness in this context.

• No policy framework for maintenance and protection of biodiversity.

Based on the conclusions, some recommendations in following direction can be highlighted:

• *Agricultural policy:*

- Improvement in the assessment and monitoring of the grants and direct payments under the Subsidy program

- Revision of the program in order to increase the efficiency of investment measures. More targeted support at structural, sectorial and regional level.

- Implementation of legislation on spatial planning and effective land market.

• *Food safety, veterinary and phytosanitary policy*

- Implementation of an integrated food control system

- System of collection and disposal of animal by-products

- Build a quality food safety infrastructure with an emphasis on international accreditation for tests and laboratories.

- Improving animal health policy.

- With regard to phytosanitary measures, although some training is being conducted on plant health monitoring and plant protection product management, more actions have to be taken in order to improve the implementation and operational capacity of the institutions responsible for plant health.

• *Climate change*

- Establishment of an effective system for water monitoring. In order to reduce air and water pollution effective measures are necessary.

- Increase the collection of waste in order to address the issue of illegal dumpsites;

- Legal provisions on environmental liability, damages and crimes;

- Implementation the climate change strategy and action plan on climate change and adaption of the actions against climate changes in line with the EU recommendations.

• *Improving the business environment and encouraging private investment*

- While long-term law reforms are required, alternatives such as mediation should be explored in the short term.

- Improvement of the legal framework for collateral so that commercial banks can reclaim land for unpaid debts, while training both parties to their rights under this law. This process will improve the access to credit.

- Development of land market. Revision of the cadastres and registers. Strengthen the capacity of municipal cadastre services in order to meet the needs of farmers and companies.

• *Reduction of transaction costs for market organization and trade*

- Producer organizations and professional associations: The government should encourage the development of producer organizations to facilitate co-production, which would increase the market power of small producers, and improve vertical and horizontal integration and the position of the farmers in value chain.

- Better standards: Access to information on standards and providing training; improved infrastructure and services for tests and implementation the standards; promotion of the use of improved packaging and storage technology; meeting the EU requirements to access to international markets, including harmonization with the EU systems;

• *Better public services and institutional capacity*

- Investments in business consulting services and improvement of agricultural education. Rural business development services can help with farm development, business training, new technologies and information services. Improving the agricultural education system will increase the government's capacity to provide these important services.

- Reform of the agricultural research system and statistics.

- *Effective public investment*

- Agricultural financial support should focus on investment in public goods. Improved infrastructure in rural areas is a prerequisite for investment in agro-processing and should be a priority, especially for the energy sector. These investments are responsibility of the Kosovo government, but may be based also on private sector. In addition to energy and transport infrastructure, these investments in public goods must include irrigation infrastructure, communication infrastructure, public storage facilities, wholesale markets and laboratory test facilities.

- Another priority is to increase government's capacity in agricultural trade in the context of the CEFTA and other trade agreements.

-In addition, climate change is and will become important issue. The Ministry of Agriculture, with the support of donors, needs to build capacity in this area.

SCIENTIFIC CONTRIBUTIONS

Scientific and theoretical contributions:

- Based on an analysis of various literature sources, a theoretical framework is presented. It observes the definitions, types, elements and features of institutional support in agriculture.
- The link between sustainable development and subsidies in the agricultural sector is outlined on the basis of established theoretical model.
- An integrated methodology for research and assessment of the impact of public support on sustainable development has been selected.

Practical contributions:

- Based on a comparative analysis, the changes in the agricultural policy of the Republic of Kosovo have been monitored and assessed.
- The impact of the institutional environment on the sustainable agricultural development in Kosovo has been surveyed.
- Opportunities for sustainable development of agribusiness through institutional adaptation are observed.
- On the basis of sectorial and structural features of agribusiness, options for an increase in agricultural sustainability are modelled.

LIST OF PUBLICATIONS

1. Beluhova-Uzunova, R., ***G. Lubeniqi***, 2019, Agricultural competitiveness: The Case of Kosovo, *AGRICULTURAL SCIENCES, ISSN 2367-5772 (Online), Volume 11, Issue 26,2019, pp 35-40*
2. Atanasov, D., ***G. Lubeniqi***, 2019, Subsidies in agriculture and their influence on sustainability. Theory and methodology, *AGRICULTURAL SCIENCES, ISSN 2367-5772 (Online), Volume 11, Issue 26,2019, pp 29-34,*
3. Dervishaj, V., ***G. Lubeniqi***, 2016, Government Participation in Bad Debts Resolution; Case of Kosovo and Albania, *ILIRIA International Review, ISSN (2192-7081) and Online ISSN (2365-8592) , Vol 6, No 1 pp. 67-81*
4. ***Lubeniqi, G***.,2020,Advantages, Disadvantages and the Performance of Foreign Direct Investment in the Republic of Kosovo 2008-2019, *PRIZREN SOCIAL SCIENCE JOURNAL, Online-ISSN: 2616-387X, p. 14-19*
5. ***Getoar Lubeniqi*** ,The Performance of establishing and developing new businesses in the Republic of Kosovo 2017-2019, *ILIRIA International Review, ISSN (2192-7081),Online ISSN (2365-8592), Vol. 9, No 2, pp.269-281*
6. Jusufi, G., ***G. Libeniqi, 2019*** An Overview of Doing Business in Western Balkan: The Analyses of Advantages of Doing Business in Kosovo and North Macedonia", *ILIRIA International Review, ISSN (2192-7081),Online ISSN (2365-8592), Volume 9, No 2, pp.165-180*