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Studies on the Agricultural and Food Sector
in Central and Eastern Europe

Agriculture in the Western Balkan Countries

Edited by
Tina Volk

IAMO
LEIBNIZ-INSTITUT FÜR AGRARENTWICKLUNG
IN MITTEL- UND OSTEUROPA

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PREFACE

The agricultural situation has gradually improved in most Western Balkan countries, but many steps on the way to European Union (EU) accession remain. This is the core message of the current report "Agriculture in the Western Balkan countries", which focuses on the EU candidate countries Croatia and Former Yugoslav Republic of Macedonia, as well as the potential candidate countries Albania, Bosnia and Herzegovina, Kosovo (under UNSCR 1244/99), Montenegro and Serbia. Edited by Tina Volk from the Agricultural Institute of Slovenia, this report bundles the results of an expert group of distinguished agricultural economists from this part of Europe. The report is an outflow of the 7th framework project "AgriPolicy", which was financially supported by the European Commission. As a representative of the series editor, the Leibniz Institute of Agricultural Development in Central and Eastern Europe (IAMO), I am particularly pleased that it appears as the 57th volume of its "Studies on the Agricultural and Food Sector in Central and Eastern Europe". Publication in IAMO's Studies series is a very welcome complement to the other research activities that IAMO pursues in the Western Balkan region.

After the demise of socialism and sometimes violent conflicts among newly-emerging states, the Western Balkan region is now in a phase of consolidation and overall economic growth that has for many years exceeded that of the EU's member states. Overall economic development went hand-in-hand with rising agricultural productivity. However, as the report suggests, this does not necessarily imply an increasing competitiveness vis-à-vis European export markets, as prices and producers are often supported by political measures. Most countries in the region are currently net importers of agri-food products, with a rising trade deficit. Among the key weaknesses of the countries' respective agricultural sectors are the predominantly small scale of farms, missing market integration, and a lack of appropriately enforced production and food safety standards. The national policy responses to these challenges have been diverse and have not always followed a clear strategy. Moreover, as the authors of the report point out, policy-making has often been dictated by ad-hoc considerations and has lacked orientation towards the EU's Common Agricultural Policy. Overcoming these weaknesses and setting the conditions for an increasingly harmonized policy approach will be crucial for the countries to move closer to EU accession. Among the necessary steps towards this goal are the modernization of agricultural policy administration and the implementation of appropriate policy monitoring and evaluation systems.

This report provides an up-to-date collection of key indicators and country-specific analysis that is truly unique. In seven country chapters, the report contains a well-processed yet sufficiently detailed overview of the situation in agriculture and agricultural policy-making in the Western Balkans. The preceding synthesis chapter puts the cross-country results in comparative perspective and draws the main analytical and policy conclusions. The final chapter presents the methodology used to prepare the country-individual and cross-country data analysis. This approach, called the Agri-Policy Measures template (APM), holds promise for application in other country settings. I wholeheartedly recommend the report to a wide audience of policy-makers and researchers interested in agricultural issues of the Western Balkan countries.

Martin Petrick

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EXECUTIVE SUMMARY

TINA VOLK [*], *MIROSLAV REDNAK* [**], *EMIL ERJAVEC* [***]

INTRODUCTION

The current publication covers Albania, Bosnia-Herzegovina, Croatia, Kosovo under UNSCR 1244/99, the FYR Macedonia, Montenegro and Serbia, and provides an overview of the agricultural situation in the European Union (EU) candidate and potential candidate countries of the Western Balkans (WBs). The objective was to provide an analysis of the development and current situation in agriculture and agricultural policy in these countries as relates to the EU accession process. The individual country reports, as well as a cross-country overview and comparison, have been prepared as a part of "AgriPolicy" project, which was financially supported by the European Commission under the 7th framework program.

DATA

The data used in country reports are derived from datasets for 2000-2008, and were established by national experts as a part of the project. Data originate from various sources, mainly national statistics and state administration bodies (ministries for agriculture). The aim was to obtain a dataset which was as coherent as possible, offering a good comparability in time and between countries. Despite all efforts, the datasets are not complete and some questions regarding data reliability remained open.

GENERAL ECONOMIC SITUATION

From 2000-2008, all WBs experienced faster economic growth than the EU, averaging an annual growth of real gross domestic product (GDP) between 6.1 % in Albania and 2.7 % in FYR Macedonia and Kosovo (compared to 2 % in the EU 27).

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However, despite the positive performances of most economic indicators, there is still concern over unemployment, which persists on two-digit level in all WBs. Food, beverages and tobacco is an important item of household expenditures, varying from about 35 % in Croatia and Montenegro to over 50 % in Albania (compared to 16 % in the EU 27). Only Croatia has a GDP per capita higher or close to the level of some EU Member States.

Although agriculture's share in the economy has decreased since 2000, it is still relatively more important in the WBs than in the EU, both in terms of value added and employment. The share of agriculture in gross value added (GVA) and employment is particularly high in Albania (close to 20 % and over 50 %, respectively), but also in Serbia, Bosnia Herzegovina and FYR Macedonia (around 10 % and 20 %, respectively). In most WBs, agriculture has played a buffer role in a generally deteriorating economic situation, and continues to play an important role in maintaining a social equilibrium.

AGRICULTURAL SITUATION

Most WBs have rather high natural potential for agriculture, with shares of agricultural area close to or higher than in the EU (40 % of total territory). However, except Serbia and Croatia, which have large shares of arable land, in all other WBs the proportion of permanent grasslands to total agricultural area is more significant, ranging from 40 % in Albania to over 90 % in Montenegro (compared to 30 % in the EU 27). A considerable portion of WBs is mountainous and hilly, or has karst features and is thus less favorable for agriculture. Regions with such features are subject to substantial ageing and depopulation processes, which can hold back the development of agriculture in these areas. A large part of the agricultural area is not utilized for production or is used extensively.

The small-scale and fragmented nature of private farming remains a general characteristic of agriculture in all WBs, representing a long-term structural handicap. The average farm size ranges from 1.2 ha in Albania to less than 4 ha in Serbia. In some WBs, such as Croatia, FYR Macedonia and Serbia, a dual structure is still apparent, but between the large-scale holdings (former state and collective farms) and the traditional, very small family farms, new, medium-sized, commercial farms are gradually emerging. However, small family farms still play a dominant role in agricultural production, with the focus being on production for own consumption and local markets.

After a decline in the volume of agricultural production due to transition, and in Bosnia Herzegovina, Croatia, Serbia and Kosovo also due to armed conflicts stemming from the break-up of SFR Yugoslavia, an increase seems to have set in for WBs since 2000 though with considerable fluctuations. The most important field crops in WBs, except Montenegro, are cereals, covering between 40 % and

65 % of the arable land. Oilseeds and sugar beet are produced on a larger scale only in Croatia and Serbia, while tobacco is important in FYR Macedonia, Bosnia Herzegovina and Montenegro. Fruits and vegetables are among the leading crop sectors in all WBs. For most crops, average production volumes have increased since 2000.

Except in Serbia and Montenegro, livestock production has improved as well. In most WBs, beef or milk production occupy first place. The pig sector is very important in Croatia, where poultry is also among the leading sectors, as well as in Serbia and to a lesser extent FYR Macedonia. The sheep and goat sector is also quite important in all WBs. The number of livestock fluctuated from 2000-2008, with various trends by sub-sector and by country.

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

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

Agri-food products represent a significant part of WBs external trade, larger than in the EU. Agri-food trade has constantly risen for both exports and imports. Except for Serbia, all other WBs are net importers of agri-food products and their trade deficit has been increasing constantly. The export-to-import cover ratios range from 5 % in Kosovo to 133 % in Serbia (2008). Exports are predominantly represented by raw materials and low value-added (processed) products. The majority of agri-food exports take place with the countries in the region (WB), followed by the EU, while in imports both destinations are represented more evenly. The exception is Albania, where trade with the EU is by far the most important in exports and imports.

AGRICULTURAL POLICY

In the last decade, there have been quite substantial changes to agricultural policy in most WBs. In some countries, budgetary transfers to agriculture have been increasing rapidly, whilst in others they have fluctuated (Albania and Serbia). Compared to the EU, funds for supporting agriculture are still relatively low. The exception is Croatia, which already in 2007 recorded a much higher level of support to

agriculture per inhabitant or per area than some EU Member States (the Baltic States, Romania and Bulgaria). A low level of budgetary support is, however, not unusual for the countries at such a level of economic development. Indeed, it is relatively comparable with levels in the new Member States at the beginning of their accession preparations, i.e. four or more years prior to accession.

A wide range of support instruments and measures are applied across the WBs. However, market support measures have lost importance related to price and trade liberalization during transition. Border protection is still applied in all WBs except Kosovo, but its effectiveness is rather limited due to free trade agreements signed in recent years (CEFTA, EU). Export subsidies are used in Serbia only. Other market support measures (market intervention, administered pricing) are less important or nonexistent.

In recent years, direct producer support has been the main element of agricultural budgetary transfers and also the major factor of growth in budgetary funds. In nearly all examined countries, crop and livestock production are supported through price aids, area and/or headage payments and input subsidies, which are all forms of support that are not in agreement with the reformed Common Agricultural Policy (CAP). Payments based on historical rights are scheduled to be introduced in Croatia in 2011. The implementation of direct payments according to the EU rules has also not been in place in any WBs. Only in Croatia and partly in FYR Macedonia have some important steps in this direction already been made.

Rural development policy is generally subordinate to production support. Funds aimed at supporting rural development are much lower, although show an increasing tendency. These funds are mainly intended for restructuring agriculture through investment support, which have been gaining importance as preparations for the approaching accession continue. All countries have been preparing, and some (Croatia and FYR Macedonia) have already started, to implement rural development policy according to EU rules. However, progress has been relatively slow, since rural development is a demanding policy, and also because these countries have different priorities. In this context, only a small proportion of funds is related to environment and countryside measures (the 2nd axis of rural development policy). There is some support for organic production, agricultural genetic resources, and some additional support for hilly and mountainous regions, but it is very limited given the potentials and possibilities provided by EU policy. General awareness for the environment, less favored areas and animal welfare issues is relatively low. This policy is not a priority, which is in a way understandable, as it is difficult to find interest and rationale for such measures in the areas facing even extreme rural poverty, and where subsistence farming prevails. Even less funds are intended for the rural population (3rd axes of rural development policy). There is a certain conflict with the EU regional policy approach, which in these countries lags behind even more than rural development policy.

Support for public services in agriculture is present in all WBs. Particularly the veterinary and phyto-sanitary areas have been undergoing substantial changes, since this is a priority in the EU integration processes. However, smaller funds and lower attention is given to development in extensions, research and training activities, which indirectly hinders faster development of agriculture.

CONCLUSION AND RECOMMENDATIONS

It can generally be concluded that progress has been achieved in the development of agriculture in the all WBs in recent years, but a great deal of work remains to be done to prepare their respective agriculture sectors for EU accession. The factors hindering the development of agriculture are small-scale farms, a low share of market production, poorly-developed market structures, the lack of meeting food safety standards, and limited capacity for exports. The level of development is declining from the north (Croatia) to the south (Albania).

The WBs lack a stable agricultural policy and a true strategy of reforms and adjustment to EU requirements. Regardless of the differences among the countries, the pragmatic *ad-hoc* approach for defining measures prevails. In the area of direct payments, there has been a rather common practice of introducing the CAP non-harmonized measures and supporting sectors which are not supported in the EU. This can be particularly critical in countries which are already in the process of accession negotiations and closer to accession.

A clear long-term strategy for agricultural policy reform, incorporating the expected EU accession agreements and impacts, is a precondition for the efficient adjustment of agriculture. A systematic implementation of the strategies and the modernization of public services regarding agriculture are also necessary elements.

Another important step would be upgrading analytical support. Creating reliable datasets and increased capacity for monitoring, evaluating and programming agricultural policy is an important part of agricultural policy reform process, which should include far more than only agricultural ministries.

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CHAPTER 1

WESTERN BALKAN AGRICULTURE AND AGRICULTURAL POLICY – CROSS-COUNTRY OVERVIEW AND COMPARISON

TINA VOLK [*], *MIROSLAV REDNAK* [**], *EMIL ERJAVEC* [***]

1 INTRODUCTION

Currently, Western Balkan countries (WBs) are all on the path to joining the European Union (EU). Croatia (HR) and FYR Macedonia (MK) have the status of candidate countries. All other WBs – Albania (AL), Montenegro (ME), Serbia (RS), Bosnia Herzegovina (BA) and Kosovo under UNSCR 1244/99 (XK) – are potential candidate countries with the prospects of joining the EU as and when they meet the established conditions [4]. During the pre-accession process, the candidate countries harmonize their legislation with the EU *acquis communitaire*, adapt their institutions and economic policies, strengthen the rule of law and develop market-oriented economies [6, 11, 16].

Harmonization in the area of agriculture is particularly demanding, especially for economically less-developed countries whose agricultural policy usually has a different role than in the EU [7]. The EU's Common Agricultural Policy (CAP) is the result of a long-term evolution of European integration processes and reforms of policy mechanisms. Initially, an extremely protectionist model of price supports was selected, which was then gradually transformed into a policy of (production) decoupled direct payments, with increasing importance placed on rural development policy, along with decreasing market interventionism and a relatively high agriculture budget [13, 14].

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As a country prepares to function in a common market under the CAP, adopting standards for agricultural statistics and their application in understanding, programming and implementing agricultural policy is of crucial importance. The provision of comparable data and taking over statistical and agricultural policy notions and strategies is not only a precondition for successful pre-accession negotiations in the area of agriculture, but also facilitates efficient programming and implementation of the agricultural policy. This process should not be limited to government institutions, but should also include the research organizations in the accession countries, as they can carry out analyses of the situation and the impact assessment analyses for the needs of the line ministries. This is a constituent part of the democratization and modernization processes of agricultural policy. Setting up an efficient support structure for monitoring agriculture and agricultural policy is a part of the accession process which is often underestimated by government structures; its absence could jeopardize the meeting of political goals of accession processes [7].

With the aim of setting up a network of analytical institutions and increasing the competence and capacities for agriculture and agricultural policy analysis under the "Agripolicy" project [2], which was financially supported by the European Commission under the 7th framework program, the candidate and potential candidate countries were asked: (i) to assess the availability and quality of agricultural statistics and other relevant data and information by preparing an inventory of data sources, collecting key relevant statistics and establishing relevant datasets of agricultural policy measures and related budgetary transfers, all based on pre-defined common templates covering 2000-2008; and (ii) to analyze agriculture and agricultural policy, and produce country reports structured uniformly in line with the basic OECD standards for such analyses by using data and information collected.

The presented report is a synthesis of country reports for Western Balkan countries and is largely drawn from data collected by national experts and presented in separate national statistical workbooks [18] covering the main fields of agricultural statistics, and national agri-policy measure datasets [1] covering budgetary transfers to agriculture. The synthesis is mostly focused on cross-country comparison and comparison with the EU.

A great deal of data needed for the analysis and evaluation of agriculture and agricultural policy is still missing in all the WBs [17]. It turned out that the main problem was obtaining disaggregated data on the actual budget expenditures for agriculture, which are not publicly available in any country, while at least basic agricultural statistics are available in most countries. Datasets are thus more or less incomplete depending on the country and compiled according to possibilities.

National agricultural policy measures (APM) databases were created using a common (uniform) classification and systemization template, which enables the cross country qualitative and quantitative analysis of implemented agricultural policies (for more information see chapter 9). The classification is primarily based on

measures used in the EU in combination with the OECD approach. According to APM classification, all agricultural policy measures are grounded on three main pillars: market and direct producer support measures, structural and rural development measures and general measures related to agriculture.

The first pillar comprises all measures aimed at supporting agricultural markets such as price control, border protection, export subsidies, market intervention and consumer support, as well as direct producer support measures divided into two main groups: (i) direct payments and input subsidies; and (ii) disaster payments and other compensations to producers. The second pillar is structured on three main axes – improving the competitiveness of the agricultural sector, improving the environment and countryside, and supporting the rural economy and population – which more or less follow the structure of actual EU rural development programs, but in a broader sense. The third pillar covers measures which are aimed at supporting public services related to agriculture such as expert and extension work, veterinary and phito-sanitary public services for agriculture, agricultural research, etc. Total budgetary support to agriculture should represent the sum of all transfers related to agriculture from all sources (national, sub-national, EU, donors), but without administrative costs and transfers to non-agricultural sectors, except those treated as rural development measures. Due to problems with data, APM datasets for the WBs except Bosnia Herzegovina comprise only budgetary transfers at the national level (without sub-national and donors funds). Following similar classification, data on budgetary support to agriculture were collected also by some New Member States (NMS) which was then used for comparison with the WBs.

For comparison with the EU, data on the EU 27 throughout the study refers to a sum or an average of all 27 EU Member States for the whole of the period, as if the 12 New Member States had been part of the EU during earlier periods. Statistical information was extracted from Eurostat's free dissemination database [8] and from the European Commission's Agricultural Statistics [5], while data on budgetary transfers to agriculture were taken from the OECD PSE/CSE database [12].

The objective of the report is to identify and describe the state and performance of the agricultural sector in the WBs in view of EU accession. Comprehensive country reports and a comparative analysis lead to some general conclusions. However, agriculture and agricultural policy in these countries are extremely heterogeneous, so that any generally applicable conclusions cannot be made without necessary simplifications. Details of specific situations can be found in the background country's reports (see Chapters 2 to 8).

The report has three parts, and is structured closely to the study template that was prepared for each country. The first part is related to agriculture and presents an overview of the macroeconomic situation in the countries, the role of agriculture in the economy, natural resources, farm structures, agricultural output and prices, as well as foreign-trade in agricultural and food products. The second part examines

agricultural policies, starting with the qualitative analysis of agricultural policy in general, as well as its main pillars, and summarizing the main findings of country reports. Qualitative analysis is followed by the quantitative assessment of budgetary expenditures related to agriculture by agricultural policy measures. This represents the first attempt to comparatively analyze the agricultural policies of WBs based on the common classification of agricultural policy measures. The report ends with conclusions and recommendations related to the EU integration process.

2 SITUATION OF THE AGRICULTURAL SECTOR

2.1 Macroeconomic environment

All WBs are rather small in terms of territory and population. Serbia, Croatia and Bosnia Herzegovina would add approximately 1 % to 2 % each to the total area and population of the EU 27, while the shares of other countries are below 1 %. The average population density ranges from 45 inhabitants per km^2 in Montenegro, to 198 inhabitants per km^2 in Kosovo. The population density also differs considerably between each country's regions and is generally lower in rural and more remote parts of the country.

Table 1-1: Total area and population, 2008

	AL	BA	HR	XK	MK	ME	RS	EU 27
Total area (1,000 km^2)	28.7	51.2	56.6	10.9	25.7	13.8	77.5	4,325.2
Population (million)	3.2	3.8	4.4	2.2	2.0	0.6	7.4	497.6
Population density (inhabitants/km^2)	111	75	78	198	80	45	95	115
Comparison with the EU (EU 27 = 100):								
- Total area	0.7	1.2	1.3	0.3	0.6	0.3	1.8	100.0
- Population	0.6	0.8	0.9	0.4	0.4	0.1	1.5	100.0

Source: WBs STATISTICS [18], EUROSTAT DATABASE [8], EC STATISTICS [5].

The WBs began their democratic reforms and transition to a market economy in the early 1990s. The initial phase of the transition process resulted in a significant decline in production and real incomes, rising unemployment and rising inflation. In Bosnia Herzegovina, Croatia, Serbia and Kosovo, the economy was also severely affected by armed conflicts, international sanctions and massive displacement of the local population stemming from the break-up of SFR Yugoslavia during the 1990s. All these factors must be borne in mind when assessing the economic performance of the WBs, both regarding the economy as a whole and the agricultural sector in particular.

Since 2000, much progress has been made in all the WBs and the pace of economic development has increased very considerably. Between 2000 and 2008, the average annual rates of gross domestic product (GDP) growth (between 2.7 % and 6.7 %) were significantly higher than in the EU 27 (2.0 %). This reflects the economic recovery and revival in the 2000s after generally lower rates of growth

experienced in the 1990s. However, all these countries had, and still have, an income per capita (measured by GDP, both at current market prices and in purchasing power standard parity terms), that is lower than the average of the EU 27 Member States. In 2008, Croatia, at 63 %, was the closest to the EU 27 average level. In Croatia, GDP per inhabitant is close to that of Lithuania and Hungary and higher than in Latvia, Poland, Romania and Bulgaria.

Table 1-2: Key general statistics

	AL	BA	HR	XK	MK	ME	RS	EU 27
Real GDP growth rate (%, 2000-2008)	6.1	5.2	4.4	2.7	2.7	5.0	5.4	2.0
GDP per capita (EUR, 2008)	2,785	3,288	10,680	1,784	3,175	4,809	4,547	25,100
GDP (PPS) per capita (EUR, 2008)	:	:	15,800	:	8,200	:	:	25,100
Unemployment rate (%, 2008)	13.1	23.4	14.3	44.0	33.8	16.4	13.6	7.0
Share of food, beverage and tobacco in total household's expenditure (%, 2007)	51.9	39.1	35.5	46.0	42.5	36.5	45.1	16.0

Source: WBs STATISTICS [18], EUROSTAT DATABASE [8], EC STATISTICS [5].

With few exceptions (FYR Macedonia, Serbia), the period of higher economic growth coincided with falling unemployment levels. However, in most countries the unemployment rate is still at double-digit levels. Unemployment seems to be a big economic problem especially in Kosovo, FYR Macedonia and Bosnia Herzegovina. Along with the increase in incomes, a slight downward trend in the share of household consumption expenditure devoted to food, beverages and tobacco can be seen in most WBs. In spite of that, the share is still two to three times higher (between 35 % and 50 %) than the EU 27 average (16 %).

Throughout the 2000s the level of inflation decreased in all WBs, and aside from Serbia has tended to approach the EU 27 average. In 2008 all countries were affected by the worldwide rise in oil and food prices and saw inflation rising at a faster rate than in recent years and faster than in most of the EU Member States.

Table 1-3: Inflation rates (%), 2000-2008

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Albania	4.2	3.5	1.7	3.3	2.2	2.0	2.5	3.1	3.4
Bosnia Herzegovina	4.8	3.1	0.4	0.6	0.4	3.7	6.1	1.5	7.4
Croatia	4.6	3.8	1.7	1.8	2.1	3.3	3.2	2.9	6.1
Kosovo (UNSCR 1244/99)	:	11.7	3.6	1.1	1.1	1.5	0.6	4.4	9.4
FYR Macedonia	5.8	5.5	1.8	1.2	-0.4	0.5	3.2	2.3	8.3
Montenegro	:	28	9.4	6.7	4.3	2.5	2.0	4.5	8.2
Serbia	70	91.8	19.5	11.7	10.1	16.5	12.7	6.8	10.9
EU 27	3.5	3.2	2.5	2.1	2.3	2.3	2.3	2.4	3.7

Source: WBs STATISTICS [18], EUROSTAT DATABASE [8].

The global financial crisis, which has affected most of the world's economies, is expected to also reduce inflation rates in the WBs, but this decrease will probably be accompanied with a progressive slowdown or decline in economic activity and increasing levels of unemployment.

2.2 Importance of agriculture in the economy

In all the WBs, agriculture is still an important sector for the national economy. In 2008, the share of total gross value added (GVA) generated from the agriculture, forestry and fishery sectors and the share of these sectors in total employment ranged from 6.4 % and 13.2 %, respectively, for Croatia, to 18.5 % and 57.4 %, respectively, for Albania. Compared to the EU 27 average, (1.8 % and 5.4 %, respectively) these proportions are much higher and depend to a large extent on the overall level of economic development.

Table 1-4: Share of agriculture, forestry and fishing in total GVA and employment, 2000 and 2008

	Share in GVA (%)		Share in employment (%)	
	2000	2008	2000	2008
Albania	25.5	18.5	71.8	57.4
Bosnia Herzegovina[1]	11.8	9.1	19.8	20.6
Croatia[2]	8.4	6.4	16.9	13.2
Kosovo (UNSCR 1244/99)	:	:	:	:
FYR Macedonia[3]	12.0	10.8	27.0	18.2
Montenegro	12.4	7.5	:	:
Serbia[1]	19.7	12.0	23.9	21.4
EU 27	2.4	1.8		5.4

Source: WBs STATISTICS [18], EUROSTAT DATABASE [8], EC STATISTICS [5].

Notes: [1] Employment data from 2004 instead of 2000.
[2] Employment data from 2005 instead of 2000.
[3] Data from 2007 instead of 2008.

The relative economic importance of agriculture is constantly decreasing, mostly due to the faster development of other sectors of the economy, especially services. However, in most WBs, agriculture still has as much a social as an economic role.

2.3 Natural conditions and land use

The natural potential for agriculture is closely related to the geographic characteristics of the country. In all the WBs, landscape characteristics are extremely diverse, ranging from fertile plains and river valleys to Karst, hilly and mountainous areas. The availability of land for agriculture differs by country.

When assessing agricultural land use in the WBs, especially in comparison with the EU, some caution is needed. Namely, in all countries except Croatia, there is no clear distinction between agricultural area and utilized agricultural area. Not all

recorded agricultural area is actually used. According to statistical data on fallow and uncultivated arable land, the share of unused arable land is 6 % in Serbia, approximately 30 % in FYR Macedonia and Montenegro and 44 % in Bosnia Herzegovina. This share is probably also high in Albania and Kosovo, though the picture regarding actual agricultural land utilization is not clear. Agricultural land use in the WBs thus provides information on area potentially available for agriculture and cannot be considered as utilized agricultural area. The only exception is Croatia, where agricultural land use data is harmonized with Eurostat's definition[1].

In most WBs, the agricultural area remained almost stable from 2000-2008[2]. The only bigger change was recorded in Croatia, where total utilized agricultural area has increased since 2000 at an average annual rate of 1.3 % and in FYR Macedonia, where a reduction at an average annual rate of 1.8 % was recorded.

In Serbia, agricultural land occupies about two-thirds of the county's total surface, while in Croatia this share is below 25 %. In other WBs, between 37 % and 56 % of the country's total territory is available as agricultural area. Except in Croatia and Montenegro, the ratio of agricultural area to total area is close to or larger than in the EU 27 (40 % in 2007). A similar conclusion can be drawn when examining agricultural area per capita, although when taking this indicator into account, Kosovo is also below the EU 27 average due to its high population density.

Table 1-5: Agricultural area, 2008

	AL	**BA**	**HR [1]**	**XK**	**MK**	**ME**	**RS**	**EU 27 (2007)[1]**
Agricultural area (1,000 ha)	1,122	2,136	1,289	609	1,064	516	5,096	172,485
of which arable land (1,000 ha)	584	987	855	243	424	45	3,302	104,341
Share of AA in total land area (%)	39%	42%	23%	56%	41%	37%	66%	40%
Agricultural area per inhabitant (ha)	0.35	0.56	0.29	0.28	0.52	0.82	0.69	0.35
Arable land per inhabitant (ha)	0.18	0.26	0.19	0.11	0.21	0.07	0.45	0.21

Source: WBs STATISTICS [18], EUROSTAT DATABASE [8].

Note: [1] Utilized agricultural area.

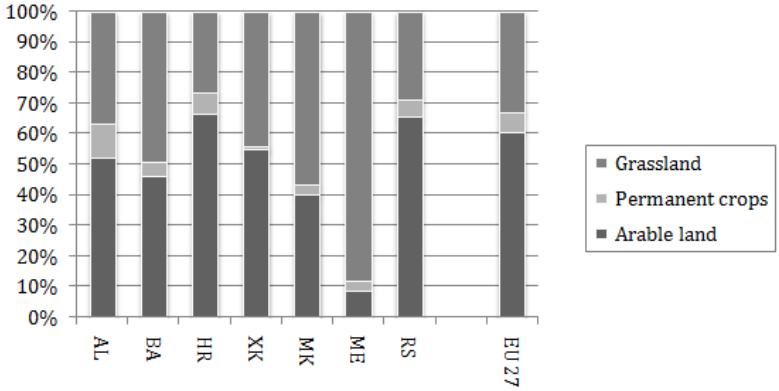
The breakdown of agricultural area by main land use categories (arable land, area with permanent crops, permanent grassland) shows quite a diverse picture by country determined largely by landscape features. In Croatia and Serbia, arable land accounts for approximately two-thirds of the total agricultural area, in Kosovo and Albania 56 % and 52 %, respectively, in Bosnia Herzegovina 46 % and in FYR Macedonia

[1] In 2005, when Croatia abandoned its method based on outdated cadastral records, the total agricultural area decreased by about 40% (arable land was reduced by 22%; permanent crops by 37%, and permanent grassland by 65%) [9].

[2] In most WBs, data on land use is predominantly based on cadastral and similar records, which are not updated regularly [3] and therefore do not take into account accurately all changes in land use (urbanization, new infrastructure, expansion of woodland, etc.).

40 %, whilst in Montenegro the share of arable land is below 10 %. Only in Croatia and Serbia is the proportion of arable land to total agricultural area more significant than in the EU 27 (about 60 % in 2007). In Montenegro (88 %) and FYR Macedonia (57 %), permanent grassland (mostly low productive highland pastures) dominates agricultural land use, and in other WBs, except Croatia and Serbia, it represents a larger share (between 37 % in Albania and 49 % in Bosnia Herzegovina) compared to the EU 27 (about 33 % in 2007).

Figure 1-1: Breakdown of agricultural area, 2008



Source: WBs STATISTICS [18], EUROSTAT DATABASE [8].
Note: EU 27 data from 2007.

The most favorable natural conditions for agriculture seems to be in Serbia and Croatia, while in other WBs a large part of the agricultural area has karst features, or is hilly, mountainous or affected by other factors that limit the possibilities of farming and influence the sector's productivity.

2.4 Farm structure

The EU's comparable system of monitoring farm structure changes through regular farm surveys has not been enacted yet by any WBs. In the last decade only Croatia (2003) and FYR Macedonia (2007) carried out a full Agricultural Census. In Montenegro (2003) and Serbia (2002), some data on farm structure was obtained via the Population Census. In Albania and Kosovo some partial data on farm structure is collected annually within regular (sample) surveys on agriculture, while in Bosnia Herzegovina no farm structure survey has been carried out since 1991. In Serbia, Montenegro and Kosovo, data relates to private family farms only (without legal entities) and in Montenegro it seems that even these farms were not captured in full. All these factors limit the direct comparability among countries and with the EU 27.

Nevertheless, a major feature of all the WBs is the small average size of farms ranging from below 2 ha in Albania, Kosovo and FYR Macedonia, to about 4 ha in Serbia. Compared to the EU 27 (12.7 ha per farm in 2007), in the WBs the average farm is three to ten times smaller, and all the WBs are positioned between Malta and Romania in the EU Member States' ranking of smallest average size of farms.

Table 1-6: Farm structure

	AL (2008)	BA (est.)	HR (2003)	XK (2008)	MK[1] (2007)	ME (2003)	RS[2] (2002)	EU 27 (2007)
No. of farms (1,000)	357	515	450	177	193	43	779	13,633
Agricultural area (1,000 ha AA)	428	1,700	1,077	264	334	137	2,869	172,485
Average farm size (ha/farm)	1.2	3.3	2.4	1.5	1.7	3.2	3.7	12.7
Share of farms with up to 2 ha	89%	50%	67%	81%	90%	66%	46%	47%
Share of farms with over 10 ha	:	4%	5%	1%	1%	5%	6%	20%
Share of AA on farms over 10 ha	:	:	52%	10%	13%	41%	25%	85%
Average size of farms over 10 ha (ha/farm)	:	:	25.7	19.6	20.0	24.2	16.5	54.9

Source: WBs STATISTICS [18], EUROSTAT DATABASE [8].

Note: [1] Data on structure of farms by size classes refers to family farms.
[2] All data refers to family farms.

Although the agricultural sector is extremely diverse, the vast majority of farms are small family farms, with primarily subsistence or semi-subsistence farming. In Croatia, Serbia and FYR Macedonia, a dual structure of the agricultural sector can be found. Along with a large number of mostly small family farms, a smaller number of rather large agricultural holdings and companies exist and operate in a commercial environment. In FYR Macedonia and Bosnia Herzegovina, this sector still faces transitional problems.

The small average size of farms in the WBs is predominantly a result of the small number and small average size of larger farms. The average size of farms in the size class over 10 ha of agricultural land is only approximately 20 ha. The share of farms in this size class lies between less than 1 % and 6 %, which is far below the EU 27 (20 % in 2007). Only in Croatia, at 52 %, do farms larger than 10 ha occupy more than half of the total utilized agricultural area. In the EU 27 this share is 85 % (2007), with the average size of such farms being 55 ha.

2.5 Agricultural production and output

Aggregate data on agricultural output are available for Albania, Croatia, FYR Macedonia and Serbia. From 2000-2008, only Albania saw rather constant rises in agricultural output. Three other countries are characterized by large oscillations

in volume of agricultural production (larger than in the EU 27), mostly due to variations in crop output, influenced predominantly by weather conditions.

Table 1-7: Agricultural goods' output volume changes, 2000-2008 (2005=100)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Albania	89.1	90.5	92.5	95.1	99.4	100.0	103.5	104.4	112.1
Bosnia Herzegovina	:	:	:	:	:	:	:	:	:
Croatia	99.6	108.1	116.4	97.9	109.5	100.0	104.4	100.3	108.4
Kosovo (UNSCR 1244/99)	:	:	:	:	:	:	:	:	:
FYR Macedonia	:	:	:	:	:	:	:	:	:
Montenegro	85.0	91.0	96.3	97.2	100.9	100.0	101.9	90.7	99.7
Serbia	74.1	94.7	92.7	82.2	103.5	100.0	97.4	86.0	97.8
EU 27	:	:	98.2	96.2	104.1	100.0	98.7	99.5	102.7

Source: WBs STATISTICS [18], EUROSTAT DATABASE [8].

However, between 2000 and 2008, the average annual rates of growth for agricultural goods' output as a whole were positive in all four countries, ranging from 3.5 % in Serbia to 1.1 % in Croatia. In Albania and Croatia, an increasing trend is visible in both crop and livestock output, while in Montenegro and Serbia, animal output shows a negative growth rate as a result of a decreasing trend in livestock production in recent years (after 2005).

According to available data, in most WBs crop output dominates agricultural production. In FYR Macedonia, the contribution of crop output to total gross agricultural goods' output is over 70 %; in Serbia this share is approximately 65 %; and in Albania, Croatia and Montenegro about 55 %.

Table 1-8: Average annual growth rate of agricultural goods' output volume from 2000 to 2008 (%)

	AL	BA	HR	XK	MK	ME	RS
Total agricultural goods' output	2.9	:	1.1	:	:	2.0	3.5
Crop output	2.8	:	0.1	:	:	5.0	6.0
Animal output	2.7	:	2.2	:	:	-0.6	-0.8

Source: WBs STATISTICS [18].

Regarding crop production, cereals are the most important field crop in terms of area sown in all WBs except Montenegro, where potato is a largely dominant crop commodity. In Croatia and Serbia, apart from cereals, industrial crops account for a relatively high proportion, while in all other countries second place is captured by vegetables. Between 2000 and 2008, the proportion of area under cereals decreased in all WBs, showing the largest drop in Kosovo, Montenegro and Albania. Serbia and Croatia recorded higher percentages of area devoted to industrial crops, while in Montenegro the share of potatoes' area, and in FYR Macedonia the share of vegetables area increased the most.

Table 1-9: Breakdown of field crops area (% of total sown/harvested area)

	Cereals		Industrial crops		Potatoes		Vegetables		Other[1]	
	2000	2008	2000	2008	2000	2008	2000	2008	2000	2008
Albania	42.5	37.3	1.9	0.7	2.7	2.5	7.8	7.4	45.1	52.1
Bosnia Herzegovina	59.8	56.6	1.2	1.4	7.1	7.3	12.8	13.1	19.0	21.6
Croatia	67.9	65.4	12.7	14.0	2.1	1.7	1.5	2.1	15.8	16.8
Kosovo (UNSCR 1244/99)	63.1	47.3	0.0	0.0	2.1	1.5	5.8	6.8	29.1	44.4
FYR Macedonia	62.9	61.5	9.1	7.7	4.0	4.8	9.2	10.8	14.8	15.3
Montenegro	26.3	16.5	0.6	0.5	29.6	32.9	21.8	21.6	21.7	28.5
Serbia	64.4	62.4	10.7	12.8	3.0	2.6	4.9	5.2	17.1	17.0

Source: WBs STATISTICS [18].

Note: [1] Mostly fodder crops.

From 2000-2008, the cereals harvest increased in all countries except Montenegro, showing the largest rise in Croatia and Bosnia Herzegovina. The production of oilseeds and sugar beet increased considerably in Croatia and Serbia, both the leading producers of industrial crops. Over the same period, potato production grew in all WBs, with the highest increase recorded in Kosovo and Montenegro, followed by Bosnia Herzegovina. Generally positive trends with few exceptions can also be noticed in vegetable production, especially in Croatia, Montenegro and FYR Macedonia, as well as in the production of fruits, where considerable rises were recorded in Kosovo, Albania, FYR Macedonia and Serbia.

Table 1-10: Crop production (1,000 t)

	Cereals		Oilseeds		Sugar beet		Potato		Vegetables		Fruits		Grapes	
	2000	2008	2000	2008	2000	2008	2000	2008	2000	2008	2000	2008	2000	2008
AL	566	609	4	3	–	–	161	190	620	715	150	262	33	89
BA	935	1329	4	10	–	–	286	425	663	693	:	235	:	24
HR	2312	3726	150	292	482	1270	198	256	196	309	155	171	182	185
XK	250	437	:	:	–	–	43	104	175	172	14	40	2	2
MK	564	613	10	5	56	–	164	189	487	569	142	251	264	237
ME	15	16	–	–	–	–	61	134	105	137	35	31	36	44
RS	5256	8844	399	857	1070	2300	621	844	897	1045	852	1268	327	373

Source: WBs STATISTICS [18].

In most WBs fruits (including grapes) represent an important part of crop output. In Albania, Croatia, FYR Macedonia and Serbia, where data on the composition of agricultural output is available, fruits have the second largest share of crop output: in Croatia (26 %) it follows cereals (53 %) and is ahead of industrial crops (12 %), in Serbia (16 %) it is after cereals (45 %) and before vegetables (13 %) and industrial crops (11 %), and in Albania (19 %) and FYR Macedonia (12 %) it follows vegetables (22 % and 38 %, respectively) and is ahead of cereals (17 % and 13 %, respectively).

As far as animal output is concerned, milk and beef production seem to be the leading subsectors in most WBs. According to data on animal output, only Serbian pork (36 % of animal output on average, 2007-2008) is ranked before these two sectors (milk 26 %, beef 20 %) while in Croatia the shares of milk and pork are similar (about 26 % each), followed by beef and poultry (about 15 % each). Also in FYR Macedonia, pork has an important share in animal output (16 %), but is not larger than milk (54 %). In Albania milk (39 %) and beef (24 %) are followed by sheep and goat meat (14 %). Based on data on animal numbers and production, in the other WBs apart from milk and beef, sheep and goats are also quite important.

Table 1-11: Livestock numbers (1,000)

	Cattle		Cows		Pigs		Sheep	
	2000	2008	2000	2008	2000	2008	2000	2008
Albania	728	541	448	360	103	161	3,045	2,620
Bosnia Herzegovina	462	459	330	339	432	502	627	1,101
Croatia	438	454	287	249	1,233	1,104	539	643
Kosovo (UNSCR 1244/99)	291	341	212	214	59	26	193	180
FYR Macedonia	265	253	172	143	204	247	1,251	950
Montenegro	180	107	128	73	22	10	306	209
Serbia	1,246	1,057	759	531	4,066	3,594	1,794	1,759

Source: WBS STATISTICS [18].

With regard to cattle, the total number of animals has decreased since 2000 in most WBs except Kosovo and Croatia. The largest decreases from 2000 to 2008 were recorded in Montenegro, Albania and Serbia. In 2008, cows accounted for between 50-56 % of the total number of cattle in Serbia, Croatia and FYR Macedonia, to over 60 % in Kosovo and about 70 % in Albania, Montenegro and Bosnia Herzegovina, which is far above the EU 27 (41 % in 2008). Since 2000, the share of cows in total cattle has decreased between 2 percentage points in Montenegro and about 10 percentage points in Croatia, Serbia and Kosovo. Albania and Bosnia Herzegovina recorded a slight increase in this share from 2000 to 2008. A high share of cows in total cattle population in most WBs indicates a generally low animal productivity, as well as the common practice of slaughtering younger animals, mostly calves.

The number of pigs fluctuated in almost all WBs from 2000-2008, but showed an upward trend in Bosnia Herzegovina, FYR Macedonia and Albania, and a downward trend in Serbia and Croatia. The sheep and goat population has decreased since 2000 in all countries except Bosnia Herzegovina and Croatia, with the largest falls seen in Montenegro, FYR Macedonia and Albania.

Except Montenegro (-17 %), Kosovo (-9 %) and Serbia (-3 %), all other WBs recorded an increase in milk production from 2000-2008, ranging from 67 % in FYR Macedonia to 11 % in Albania.

Taking into account the available data, which do not provide a clear picture about the evolution of agricultural production for all the WBs, it seems that generally, agricultural output had an increasing tendency in both the crop and animal sectors. The production of the most important crops increased from 2000 to 2008, and apart from Serbia and Montenegro, the rise in milk and meat production can be seen as well. The most uncertain assessment of changes in agricultural production is for Kosovo and Bosnia Herzegovina, where not all data is available[3].

In most WBs, the increase in agricultural production was predominantly a result of increased productivity and yields. From 2000-2008, the average wheat yields rose in all WBs, with the smallest increase being recorded in Bosnia Herzegovina (about 15 %). Wheat yields differ considerably by country. The highest is found in Croatia, reaching about 90 % of the EU 27 average. In other WBs, wheat yields range from 50 % to 60 % (FYR Macedonia, Montenegro), and 60 % to 70 % (Albania, Bosnia Herzegovina, Kosovo, Serbia) of the EU 27.

Table 1-12: Average yields of common wheat (t/ha)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Albania	3.0	2.8	3.2	2.9	3.1	3.2	3.0	3.6	4.0
Bosnia Herzegovina	3.3	2.4	3.0	2.2	3.7	3.1	3.2	3.5	3.7
Croatia	4.7	4.4	4.6	3.2	4.9	4.1	4.6	4.6	5.5
Kosovo (UNSCR 1244/99)	2.6	3.4	3.4	3.7	3.8	3.9	3.5	3.4	4.1
FYR Macedonia	2.5	2.1	2.6	2.2	3.5	3.1	3.0	2.4	3.4
Montenegro	2.0	2.8	3.4	3.0	3.0	3.1	3.1	2.5	3.5
Serbia	3.0	3.7	3.2	2.2	4.3	3.6	3.5	3.3	4.3
EU 27					6.1	5.5	5.4	5.1	6.0

Source: WBs STATISTICS [18], EC STATISTICS [5].

All the WBs other than Kosovo also recorded considerable increases in milk yields. From 2000 to 2008, Croatia increased their milk yields by about 60 %, while Albania, Bosnia Herzegovina, Montenegro and Serbia increased theirs between 30 % and 40 %, and FYR Macedonia by about 20 %. Only in Kosovo did milk yields remain more or less unchanged. With regard to average milk yields, the gap between WBs and the EU 27 is much larger compared to wheat yields and crop yields in general. Only Croatia, at about 60 % of the EU 27, is ranked ahead of Bulgaria and Romania, while milk yields from all other WBs are lower than in any EU Member State. The lowest milk yield compared to the EU 27 average is recorded in Kosovo (about 25 % of the EU 27), followed by Albania and Bosnia Herzegovina (about 40 %) and Serbia and FYR Macedonia (close to 50 %).

[3] In Bosnia Herzegovina, data on meat production does not cover all domestic production (without on-farm slaughtering) and in Kosovo data on livestock production is not available through regular statistics at all (estimates are made by veterinary services on request) [3].

Table 1-13: Average cow milk yields (kg/cow)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Albania[1]	1,801	1,905	2,018	2,041	2,108	2,163	2,276	2,192	2,486
Bosnia Herzegovina	1,835	1,936	2,258	2,012	2,064	2,174	2,178	2,429	2,559
Croatia	2,374	2,575	2,705	2,790	2,869	3,301	3,603	3,640	3,878
Kosovo (UNSCR 1244/99)	1,476	1,497	1,475	1,211	1,476	1,494	1,517	1,466	1,466
FYR Macedonia	2,413	2,159	2,156	2,204	2,433	2,313	2,572	2,966	2,920
Montenegro	1,697	1,807	1,875	1,729	1,620	2,403	2,348	2,381	2,278
Serbia[1]	2,151	2,240	2,352	2,419	2,409	2,473	2,628	2,650	2,976
EU 27					5,881	5,982	6,093	6,084	6,133

Source: WBs STATISTICS [18], EC STATISTICS [5].

Note: [1] Total milk production divided by the number of all cows (no data on dairy cows).

Generally low yields indicate that the overall technological level and productivity is still rather low in most agricultural sub-sectors in all WBs.

2.6 Agricultural prices

In the WBs, the situation regarding agricultural output and input prices is challenging to evaluate since data is scarce, incomplete and not entirely comparable between countries and within the EU 27.

Producer price indices by standard group of agricultural products are regularly available in Serbia and for recent years as well in Croatia, Kosovo and FYR Macedonia, while input price indices can be found only in Croatia and FYR Macedonia. In other countries, information on prices is limited to the absolute selling prices of a set of agricultural products, which is not always the most representative for the country's agriculture. With few exceptions, the quality of data is unclear or problematic, data on absolute prices is not standardized, and when recalculated from national currency to Euro, prices are largely influenced by exchange rates, which generally do not follow inflation rates. All these limitations have to be kept in mind when assessing the situation.

With regard to producer price changes, indices for total agricultural production in four WBs for which this data is available mostly show general characteristics similar to the EU 27 (down prior to 2005, and higher levels from 2006-2008), but with more intensive fluctuations over the period influenced predominantly by changes in prices of crop output. Price indices of animal output were generally more stable, with a tendency to decrease in real terms in Croatia and Serbia and increase in FYR Macedonia and Kosovo.

Table 1-14: Producer price indices (2005=100)

	Nominal indices						Indices in real terms (deflated)[1]					
	2003	2004	2005	2006	2007	2008	2003	2004	2005	2006	2007	2008
AL	:	:	:	:	:	:	:	:	:	:	:	:
BA	:	:	:	:	:	:	:	:	:	:	:	:
HR	:	:	100.0	100.4	111.6	111.7	:	:	100.0	97.3	105.1	99.1
XK	120.6	114.1	100.0	102.3	116.2	132.3	123.8	115.8	100.0	101.7	110.6	115.1
MK	:	93.4	100.0	112.1	143.0	154.9	:	93.8	100.0	108.6	135.5	135.5
ME	:	:	:	:	:	:	:	:	:	:	:	:
RS	78.5	86.5	100.0	109.2	127.7	161.3	100.7	100.8	100.0	96.9	106.1	120.8
EU 27[2]	101.3	102.0	100.0	105.4	115.1	121.4	106.7	104.5	100.0	102.8	109.6	111.3

Source: WBs STATISTICS [18], EUROSTAT DATABASE [8].

Notes: [1] Calculated from nominal indices using inflation as a deflator.
[2] Recalculated from indices with 2000 as a base year.

When analyzing the absolute producer prices of individual agricultural commodities, even larger fluctuations and differences from 2000-2008 can be seen, making assessment of the general level of prices and related price competitiveness very difficult. Price levels differ considerably by country and product.

Only in Serbia can price competitiveness be found in most agricultural products, while Croatia seems to be price competitive predominantly in cereals and industrial crops. For other WBs, price competitiveness is limited mostly to specific products like vegetables, potatoes, some fruits and probably also some other crop products (tobacco), while among animal products only the sheep and goats sector seems to be more or less price competitive in all WBs. FYR Macedonia recorded rather low prices for beef as well, but it is not clear to which category data is related (young cattle or together with cows). Milk prices are also rather low compared to the EU Member States. However, the price competitiveness of this sector is largely limited by the generally much lower overall milk quality.

Nevertheless, after analyzing sets of products, the general assessment is that in most WBs, agricultural producer prices are relatively high and for the majority of products, closer to those EU Member States with higher price levels than to those with low prices.

2.7 Agricultural trade

In all WBs, the agri-food sector is an important contributor to the country's total external trade of goods, both exports and imports. In 2008, the proportion of agri-food exports to total exports of goods ranged from 6 % to 18 %, while agri-food imports contributed between 7 % and 23 % to total imports[4]. These proportions are larger than in the EU 27 (5.7 % and 6.3 % respectively).

[4] External trade figures presented in this chapter cover agri-food trade according to the Combine Nomenclature of Customs Tariffs (CNCT 01 to CNCT 24).

Table 1-15: Share of agri-food products in external trade of goods (%), 2008

	AL	BA	HR	XK	MK	ME	RS	EU 27
Share in exports	6.6	6.3	9.9	10.3	11.1	10.2	18.0	5.7
Share in imports	16.6	15.8	8.5	23.2	13.9	17.6	6.5	6.3

Source: WBs STATISTICS [18], EC STATISTICS [5].

Agri-food trade is constantly increasing in all the WBs. Four of the WBs – Bosnia Herzegovina, FYR Macedonia, Montenegro and Serbia – recorded that in the period for which these data are available (which varies by country), agri-food exports increased at a higher rate than imports; hovever, only Serbia improved its trade balances compared to the beginning of the observed period (since 2000). Additionally, Serbia has a positive agri-food trade balance, while other WBs all are net importers of agri-food goods. In these countries, the deficits rose at an average annual rate between 6.3 % in Bosnia Herzegovina and 23.5 % in Montenegro. In 2008, the export-to-import cover ratios ranged from 5 % in Kosovo to 73 % in FYR Macedonia, with Bosnia Herzegovina showing the biggest improvement in this indicator since 2000.

Table 1-16: Agri-food trade (EUR million)

	Exports		Imports		Trade balance		Export/Import Ratio	
	2000	2008	2000	2008	2000	2008	2000	2008
Albania[1]	46.4	60.1	381.6	591.2	-335.2	-531.1	12%	10%
Bosnia Herzegovina	42.8	217.1	720.6	1319.8	-677.8	-1102.7	6%	16%
Croatia	441.1	955.5	746.2	1792.7	-305.1	-837.2	59%	53%
Kosovo (UNSCR 1244/99)[2]	6.5	20.5	293.2	447.4	-286.7	-426.9	2%	5%
FYR Macedonia	220.4	374.4	280.9	516.2	-60.5	-141.8	78%	73%
Montenegro	6.3	46.7	76.2	426.0	-69.9	-379.3	8%	11%
Serbia	319.7	1327.3	311.3	999.8	8.3	327.5	103%	133%

Source: WBs STATISTICS [18].

Notes: [1] 2005 data instead of 2000.
[2] 2004 data instead of 2000.

As far as the composition of agri-food exports is concerned, fruits and vegetables and its preparations (CNCT 07, 08 and 20) were among the most important export categories in all WBs except Croatia. Croatia recorded the highest percentage of exports in sugars and confectionary (CNCT 17) and cereals and related products (CNCT 10, 11, 19). Cereal-related groups are also an important export category for Serbia, Kosovo and Bosnia Herzegovina.

Table 1-17: Breakdown of agri-food exports (%), 2007-2008 average

	AL	BA	HR	XK	MK	ME	RS
16 Meat preparations	27.7	7.8	5.2	0.1	2.8	3.6	2.6
04 Dairy produce, eggs, honey	4.1	13.0	4.8	0.6	1.3	0.1	2.9
07 Edible vegetables	2.1	4.6	0.7	18.4	14.8	6.5	3.4
08 Edible fruit and nuts	4.3	6.9	1.8	5.2	9.0	5.2	17.6
20 Preparations of vegetables, fruit, nuts	3.0	6.5	2.0	16.0	6.4	0.5	4.7
10 Cereals	0.2	0.5	6.4	0.7	0.5	0.1	9.4
11 Products of the milling industry	0.2	0.7	1.6	17.5	0.1	0.5	5.5
19 Preparations of cereals	0.2	9.1	5.8	0.3	6.6	2.0	5.5
12 Oilseeds	30.1	1.4	3.1	0.9	0.8	0.3	1.9
15 Fats and oils	0.9	11.1	2.8	0.0	1.4	0.1	7.1
17 Sugars and confectionary	0.1	9.2	14.9	0.5	1.7	0.7	9.4
22 Beverages, spirits, vinegar	7.9	6.2	9.2	24.0	19.8	49.3	9.9
24 Tobacco	5.7	3.0	8.7	0.8	22.5	24.1	2.1
Other groups	13.4	20.1	33.1	15.1	12.2	7.0	18.0
01-24 Total agricultural products	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: WBS STATISTICS [18].

Wine and other beverages (CNCT 22) have the highest shares in Montenegro (close to 50 %), Kosovo and FYR Macedonia, and are among the largest export categories in other WBs. Tobacco (CNCT 24) is the main export commodity in FYR Macedonia, and also has high shares in Montenegro and Croatia. Albania was the only country to record oilseeds (CNCT 12) and meat preparations (CNCT 14) as the largest two export categories (accounting for almost 60 % of its exports of agri-food goods), represented mostly by niche products such as medical and oleaginous herbs and seeds, and frog legs, respectively. Bosnia Herzegovina is the only country where dairy products ranked among the leading export categories.

The composition of agri-food imports is more dispersed compared to exports. Cereals and related products, meat and meat preparations, beverages and tobacco are the most represented groups in agri-food goods imports in most WBs. Oilseeds and oils are important import categories in Albania and FYR Macedonia, while in Serbia fruits are among the leading import groups.

Table 1-18: Breakdown of agri-food imports (%), 2007-2008 average

	AL	BA	HR	XK	MK	ME	RS
01 Live animals	4.9	3.4	6.2	0.8	0.3	2.6	1.0
02 Meat, offal	8.1	3.5	7.7	8.9	15.2	12.9	1.3
16 Meat preparations	2.2	3.9	2.5	3.6	5.2	5.5	4.5
04 Dairy produce, eggs, honey	4.0	5.4	5.3	6.9	4.9	9.0	2.2
07 Edible vegetables	2.8	2.4	4.0	3.4	1.3	1.5	5.0
08 Edible fruit and nuts	6.8	4.6	7.0	3.7	4.2	2.8	13.3
20 Preparations of vegetables, fruit, nuts	3.2	2.0	5.2	3.8	4.5	5.4	4.5
10 Cereals	7.9	9.4	2.9	7.2	4.3	1.9	1.8
11 Products of the milling industry	1.8	2.7	1.2	3.5	5.5	5.7	1.0
19 Preparations of cereals	7.0	6.0	7.6	7.7	6.1	6.3	4.7
23 Residues from the food industries	1.8	5.9	7.1	3.3	3.8	3.6	4.7
12 Oilseeds	7.6	3.5	2.5	1.0	2.7	0.5	5.1
15 Fats and oils	7.8	4.6	4.1	4.7	9.3	3.9	4.3
17 Sugars and confectionary	4.7	5.8	5.9	5.1	6.3	3.1	3.7
22 Beverages, spirits, vinegar	9.8	12.9	6.0	11.9	4.3	14.1	6.7
24 Tobacco	9.2	6.1	1.9	11.7	2.2	4.9	6.7
Other groups	10.5	17.9	22.8	12.6	20.2	16.4	29.4
01-24 Total agricultural products	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: WBs STATISTICS [18].

For most WBs, other countries in the region (Western Balkan) and the EU 27 are the main trading partners, accounting for the largest shares of both imports and exports of agri-food goods. As far as exports are concerned, except in Albania, countries in the region are ranked ahead of the EU 27, representing between nearly 50 % to over 80 % of the total agri-food exports in 2008. Regarding imports, the countries in the region are the most important trading partners for Montenegro, Bosnia Herzegovina and Kosovo, while for Albania, Serbia and FYR Macedonia, imports of agri-food goods originating from EU 27 represent the highest shares.

Table 1-19: Regional breakdown of agri-food trade (%)

	Export						Import					
	EU 27		WB		Other		EU 27		WB		Other	
	2005	2008	2005	2008	2005	2008	2005	2008	2005	2008	2005	2008
AL	68	77	19	2	13	21	59	57	5	9	36	35
BA	23	21	73	70	4	9	43	37	51	55	6	8
HR	:	:	:	:	:	:	:	:	:	:	:	:
XK	43	11	53	83	4	5	35	29	41	45	25	26
MK	49	47	:	49	:	4	47	37	0	34	53	29
ME	3	15	95	80	2	4	31	26	56	70	13	4
RS	56	41	37	47	8	13	47	43	14	20	40	36

Source: WBs STATISTICS [18].

Across the years and countries for which data is available, Albania recorded by far the highest percentage of exports going to the EU 27 (77 % in 2008), while other countries recorded lower figures. Only in Montenegro did the proportion of agri-food exports going to the EU 27 increase in recent years. With some fluctuation, Bosnia Herzegovina and FYR Macedonia recorded a fairly stable picture, while the proportion of agri-food exports destined for the EU 27 from Kosovo and Serbia decreased strongly (by 35 percentage points and 15 percentage points, respectively, from 2005 to 2008).

In general, imports of goods originating from the EU 27 increased in all the WBs since 2005 (period subject to data availability in most countries) but at a slower pace than imports from other countries. The most notable changes in the percentage of imports of agri-food goods originating from the EU 27 were recorded in FYR Macedonia (a fall by 10 percentage points from 2005 to 2007), and Bosnia Herzegovina and Kosovo (a fall by 7 and 6 percentage points, respectively, from 2005 to 2008).

Apart from Serbia, each of the WBs ran a trade deficit in agri-food goods with the EU 27 over recent years, and except for FYR Macedonia, this deficit shows an increasing tendency.

3 AGRICULTURAL POLICY

3.1 Agricultural policy framework

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

Croatia, being nearest to accession, is well advanced in harmonizing its legislation and programming documents with the EU, especially in the field of rural development, where SAPARD[5] (2005-2006) and IPARD[6] (2007-2013) programs were prepared as a basis for pre-accession support, and were financed and implemented according to EU rules. Some elements of the harmonization can also be found in FYR Macedonia, where the IPARD program was prepared and implemented, and

[5] Special Accession Program for Agriculture and Rural Development.
[6] Instrument for Pre-accession Assistance, component V – Rural Development.

in Montenegro, where at the programming level, all documents (strategy, national program, legislation) were prepared according to EU principles. Rural development programming documents based on EU rural development regulations were also adopted in Albania and Kosovo and drafted in Serbia. Bosnia Herzegovina has a specific situation since there is no unique ministry of agriculture at the state level. There are two separate strategies for agriculture and rural development at the entity level, while agricultural policy is partly implemented even at the lower levels (cantonal).

Although the WBs programming documents and planned activities are closely related to EU integration, agricultural policy is still implemented mostly based on annual programs of budget allocation, which are not stable in terms of funds, support measures and eligibility criteria.

3.2 Agricultural policy measures

3.2.1 Market and direct producer support measures

The level of liberalization on agricultural markets is quite different between countries. Border protection is the subject of agricultural policy in all WBs except Kosovo. In recent years the levels of border protection have been reduced (mostly related to WTO negotiations) and quotas (except preferential) have been abolished (or not introduced at all). Ad valorem custom duties are set at relatively low levels in Albania, Bosnia Herzegovina, and FYR Macedonia (0 % to 15 %), while in Serbia, Croatia and Montenegro, custom duties for some products are higher (up to 40 %). All Western Balkan countries have signed several free trade agreements (most important being CEFTA[7]), which significantly reduced effective foreign trade protection. In general, one can say that in the WBs the level of trade protection is relatively low.

Table 1-20: Forms and the importance of market support measures

	AL	BA	HR	XK	MK	ME	RS
Border protection	x	x	xx	-?	x	xx	xx
Export subsidies	–	–	–	–	–	–	xxx
Market intervention	–	–	xx	–	–	–	x
Other measures		x[1]					

Notes: -: Not introduced; x: introduced; xx; xxx: relevant; ?: uncertain estimation.
[1] Administrative prices.

Export subsidies (refunds) are only an important market support measure in Serbia. In other WBs, this measure has not been implemented. The market intervention system formally exists only in Croatia and Serbia, but in recent years intervention

[7] Central European Free Trade Agreement.

buying-in has seldom been implemented. Of other market support measures, administered pricing is implemented in Bosnia-Herzegovina (for wheat and rye).

Direct producer-support measures are the most important instrument of agricultural policy in all the WBs. All basic forms, except decoupled payments, are introduced. However, the composition of the support differs by country.

Table 1-21: Forms and the importance of direct producer support measures

	AL	BA	HR	XK	MK	ME	RS
Direct payments based on output	x	**xxx**	x	-?	xx	xx	xx
Direct payments based on area/animal	x	xx	xxx	x	**xxx**	xx	x-
Variable input subsidies	x	–	x	x	x	xx	**xxx**
Decoupled payments	–	–	–	–	–	–	–

Notes: -: Not introduced; x: introduced; xx; xxx: relevant; ?: uncertain estimation.

The most coupled means of support, payments based on output (price aids) is still quite important in all WBs, but especially so in Bosnia Herzegovina. Direct payments based on area or animal number are the most widespread subsidy form implemented in all countries. The importance of these payments is particularly significant in FRY Macedonia, and also in Croatia. In all WBs, the use of inputs (seeds, fertilizers ...) is also subsidized. In Serbia, input subsidies are the most important form of direct producer support. The decoupling process has not started yet in any country, though it is planned to begin in Croatia in 2011.

3.2.2 Structural and rural development measures

In most countries, structural and rural development policy is in the shadow of market and direct producer support policy. The only important measure in this group is investment support.

There is no special program to support agriculture in less favorable areas (LFA) in any country, although the proportion of such areas is large in most WBs. In some countries (Croatia, Montenegro, Serbia) production in LFAs is supported by a higher unit value of some regular subsidies compared to other areas.

Table 1-22: Forms and importance of structural and rural development measures

	AL	BA	HR	XK	MK	ME	RS
Competitiveness	xxx	xxx	xxx	xx	xxx	xxx	xxx
Environment							
LFA payments	–	-?	(x)	-x[1]	-x	(x)	(x)
Environmental payments	x	x	x	-x[1]	x	xx	x
Rural economy and population		x	xx	-x[1]	?	xx	xx

Notes: -: Not introduced; x: introduced; xx; xxx: relevant; ?: uncertain estimation.
[1] Donors projects.

In the field of environmental payments and measures linked to rural areas and population, some first measures have been launched. Agro-environmental measures are related mostly to organic farming and the conservation of agricultural genetic resources, while support to rural areas is mostly limited to rural infrastructure and farm tourism.

3.2.3 General measures related to agriculture

Support for public services in agriculture is present in all the WBs. More attention to veterinary and phyto-sanitary areas can be seen in candidate countries.

Table 1-23: Support for public services in agriculture

	AL	BA	HR	XK	MK	ME	RS
Extension service	x	x	xx	x[1]	xx	xx	xx
Veterinary and Phytosanitary services	x	x	xx	x[1]	xx	xx	x
Other	x	x	xx	x[1]	x	x	x

Notes: -: Not introduced; x: introduced; xx; xxx: relevant; ?: uncertain estimation.
[1] Donors projects.

This part of agricultural policy is rather modestly commented on in the country reports because the picture is quite unclear. If the importance of the programs were judged by the extent of agricultural budgetary funds allocated for that purpose, then one could say that the importance of public services is small in all WBs. Some experts reported that such services are also funded from other sources (donors, other ministries), but without long-term financing it is hard to expect the development of public institutions needed to more quickly develop agriculture.

3.3 Budgetary support to agriculture

A complete APM database with all the data collected according to the established methodology was compiled in Bosnia Herzegovina, Montenegro and Serbia. Most of the data needed to analyze budgetary transfers to agriculture are available for Croatia and FYR Macedonia. In Albania, basic data were collected but the reliability is still questionable. For Kosovo, only data on the total budget of the ministry responsible for agriculture is available.

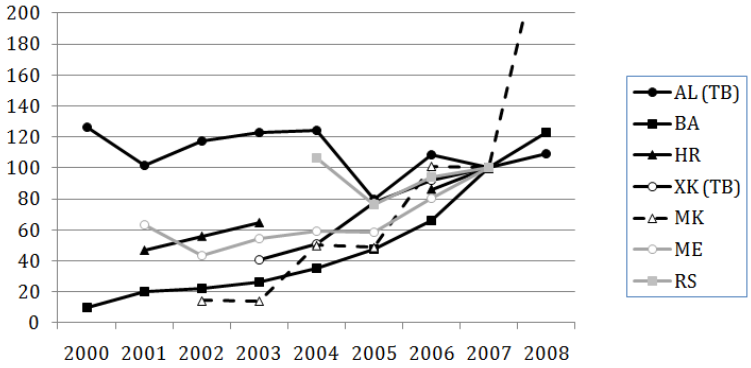
In the WBs, agricultural support through budgetary funds has gained in importance, especially in recent years.

Table 1-24: Total budgetary support to agriculture (EUR million)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Albania[1]	54.5	43.9	50.8	53.0	53.6	34.6	46.9	43.2	47.1
Bosnia Herzegovina	7.0	14.2	15.4	18.6	24.7	33.1	46.4	69.9	86.1
Croatia	:	201.4	240.5	278.3	:	:	371.4	431.4	:
Kosovo (UNSCR 1244/99)[1]	:	:	:	2.6	3.3	5.0	5.9	6.4	:
FYR Macedonia	:	:	2.5	2.5	8.6	8.4	17.5	17.2	44.7
Montenegro	:	6.2	4.2	5.3	5.8	5.7	7.8	9.7	12.7
Serbia	:	:	:	:	188.1	135.0	165.5	176.4	265.8

Source: APM DATABASES [1].
Notes: [1] Total line ministry budget.

Figure 1-2: Evolution of total budgetary support to agriculture, 2000-2008 (2007 = 100)



Source: APM DATABASES [1].

It is difficult to compare budgetary support between countries in absolute terms. Although relative indicators can also be problematic, total budgetary support calculated per capita or per hectare of agricultural area (AA) can be used for an approximation of differences by country.

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

Table 1-25: Total budgetary support to agriculture per unit, 2007

	AL[1]	BA	HR	XK[1]	MK	ME	RS	LV	BG	CZ	EE	HU	SI	EU 27
EUR/capita	11	18	99	3	8	16	27	141	37	135	162	233	155	156
EUR/ha AA	31	32	364	11	16	20	40	175	55	329	239	402	626	448

Source: APM DATABASES [1], OECD DATABASE [12], EC STATISTICS [5].

Notes: [1] Total line ministry budget.

In addition to the total amount of support, the structure of support is also an important indicator of agricultural policy.

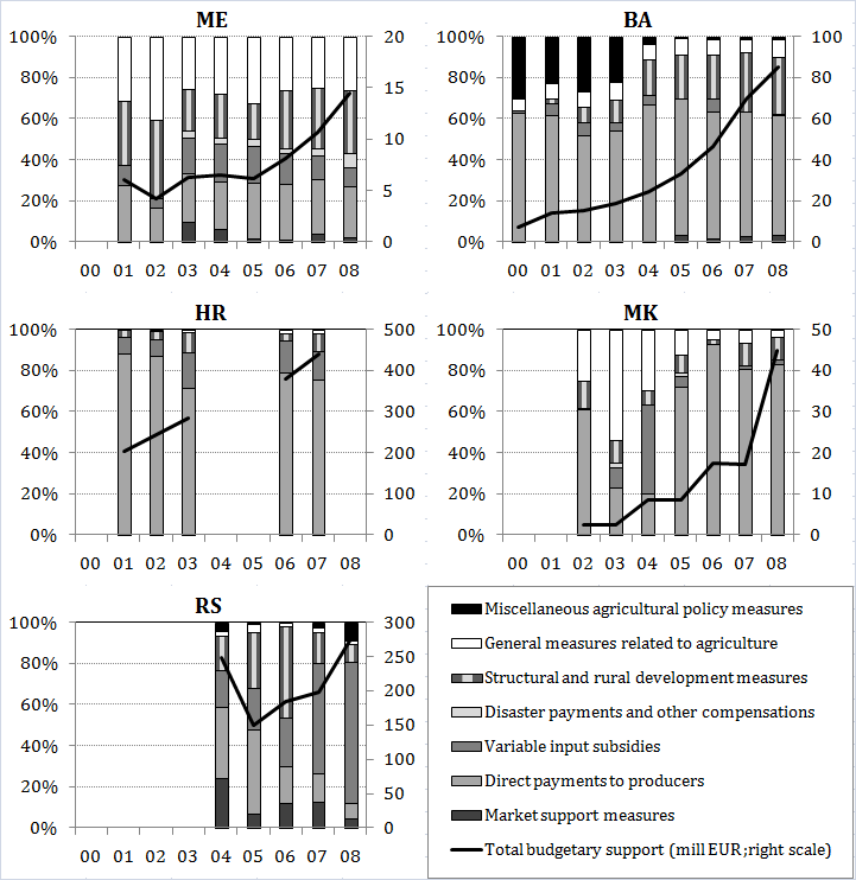
When comparing the evolution of total funds and the evolution of their structure, three different patterns can be found.

In Bosnia Herzegovina, and after 2003, also in Montenegro, along with the growth of total support, its composition is also changing. Indeed, the share of funds related to rural development measures increases on account of the decrease in direct producer support funds.

This is not the case in Croatia and FYR Macedonia, where the structure in recent years is quite rigid and the share of direct producer support has remained very high.

Serbia is a special case. In addition to a substantial drop in total support in 2005, dramatic change in the structure of direct producer support can be seen in recent years – a switch from direct payments to input subsidies. The Serbian case (and FYR Macedonia till 2004) clearly indicates the problem of agricultural policy stability, which has also been reported by experts from other WB countries.

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



Source: APM DATABASES [1].

The structure of budgetary support to agriculture in the WBs is significantly different from that of NMS, although it is also true that differences between NMS

are large. In particular, the share of the budget for direct producer support is significantly higher in most WBs. On the other hand, the proportion of rural development support measures is lower, as is the proportion of funding for general services[8].

Table 1-26: Breakdown of total budgetary support to agriculture (%), 2007

	BA	HR	MK	ME	RS	LV	BG	CZ	EE	HU	SI
Market support	2.6	0.7	0.0	4.0	12.3	1.1	0.0	2.7	1.9	35.6	0.8
Direct producer support	61.1	88.5	82.7	37.4	66.8	35.9	15.0	53.6	40.4	37.9	45.5
Structural and rural development measures	28.4	9.1	10.6	31.3	16.1	44.1	8.1	27.6	35.5	19.5	43.0
General measures related to agriculture	6.8	1.6	6.7	27.3	2.1	18.9	76.9	16.1	22.2	7.0	10.8
Miscellaneous	1.1				2.7						

Source: APM DATABASES [1].

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

Table 1-27: Breakdown of direct producer support (%), 2007

	BA	HR	MK	ME	RS	LV	BG	CZ	EE	HU	SI
Payments based on output	57.6	22.0	0.0	22.0	20.2	0.6	5.3	0.0	0.0	0.0	0.0
Payments based on current area/animal	41.6	62.5	97.7	39.0	0.9	23.1	15.7	0.0	46.2	69.5	9.7
Decoupled payments	0.0	0.0	0.0	0.0	0.0	56.4	33.0	92.9	51.6	27.8	67.2
Variable input subsidies	0.7	15.5	2.3	29.3	78.9	19.9	0.6	0.0	1.7	0.0	7.5
Other direct payments	0.0	0.0	0.0	9.8	0.0	0.0	45.3	7.1	0.5	2.7	15.6

Source: APM DATABASES [1].

Rural development policy is generally subordinate to direct producer supports, and mainly includes measures for restructuring agriculture, which have been gaining importance as accession preparations have increased[9].

In the WB countries for which data is available, investment support and other measures aimed at improving the competitiveness of the agricultural sector represent the

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8 Some experts reported that general services are also funded from other sources, but data for this is not available (not included in APM database).

9 There are also several donor projects, which in some countries represent an important share of the funds for this policy pillar, but data for this is not available and thus not included in APM databases.

highest share of funds for rural development, ranging from about 70 % in Montenegro and Serbia, to 100 % in FYR Macedonia (2007).

Table 1-28: Breakdown of rural development support (%), 2007

	BA	HR	MK	ME	RS	LV	BG	CZ	EE	HU	SI
Improving the competitiveness of the agricultural sector	79.3	96.8	100.0	67.7	68.2	56.2	100.0	17.2	31.7	37.4	33.8
Improving the environment and the countryside	3.5	0.0	0.0	0.0	2.0	39.9	0.0	71.1	52.1	50.1	64.5
Supporting rural economy and population	17.2	3.2	0.0	32.3	29.7	4.0	0.0	11.7	16.2	12.5	1.7

Source: APM DATABASES [1].

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

4 GENERAL CONCLUSION AND RECOMMENDATIONS

In all WBs, agriculture still ranks among the most important sectors of the national economy, with significant contributions to overall economic and social stability. Land and labor productivity are much lower than the EU average in WBs, mostly due to slow farm consolidation processes and inefficient use of production factors. In particular, the absorption of surplus labor from the farm sector is a major challenge for most WBs. The agri-food sector as a whole is facing problems with creating market institutions, establishing marketing and distribution chains, meeting EU quality, veterinary and phitosanitary standards, and building the administrative capacity to support these processes.

In terms of programming and the process of harmonizing agricultural policy, the countries can be divided into the following groups: (i) country with planned activities and partial implementation of CAP-like measures (Croatia); (ii) countries with elements of harmonization, mostly at the programming level (FYR Macedonia, Montenegro); (iii) countries in the initial phase of partial EU harmonization at the programming level (Kosovo, Albania); and countries with a "pragmatic" approach, without real CAP direction in their policy instruments (Serbia, Bosnia Herzegovina).

Various strategies of adjustment can be adopted regarding accession requirements. In past enlargements, the most successful countries were those which supported the timely building of those institutions necessary for CAP implementation, and at the same time prepared producers for the procedures and levels of supports that apply upon accession [7]. A rational (taking into account the possibilities and needs)

and gradual introduction of CAP-like elements most closely meets this approach. Elements that no longer exist or are significantly different from those applied in the EU should not be adopted. This is particularly important for candidate countries.

More room for maneuver in choosing agricultural measures becomes available as the current EU model of support changes and emerges in various economic conditions [10]. There is definitely a need to adapt to production support, which has existed in a broader sense in the EU since 1992. Another important element to be taken into account is that the levels of support should not exceed EU levels. If this happens, it could lead to negative accession effects and problems with farmers' interest groups, whose power is growing in all countries.

If a country is at the beginning of the accession process, some input subsidies and output supports are still "allowed", but the decision-makers should be aware that historical rights for farmers are difficult to remove. A strategic piece of advice would be that the policy gradually focuses on per head and area payments for those sectors which have been gaining support in the EU since 1992. Great efforts need to be made towards establishing the IACS[10] system. The correct control and monitoring of payments is also healthy for domestic stakeholders.

Regardless of the great need for increased competitiveness in agriculture and the prevailing production-oriented approach, more attention should be given to rural development, which should gradually become a central policy. But the WBs should develop their own prioritizing system. There have been too many cases of merely copying EU measures, which are often unsuitable for accession countries. The WBs should avoid this and attention should be given to solving their own problems, as well as to gradual EU-like policy programming and implementation. If possible, the countries should not create separate EU and domestic rural development policies and implementation structures. An increase in agricultural competitiveness should be the first priority of this policy. Also, strategic investment in market structures and food processing could contribute to greater efficiency for both agriculture and the overall economy. Ways should be found to support the development of small farmers. Very often, their problems seem to be an excuse for increasing production support, which does not solve their problems, but perhaps aggravates them. In the candidate countries, a much greater role should be given to the 2nd and 3rd axes measures for rural development policies. Less-favored area denomination and rules and practices for environmentally-friendly production could be the first step in this direction. At the beginning, support could also be coupled. It is important that the new elements of this policy attract the attention of both producers and the general public.

More attention should be given to agricultural policy analysis, monitoring and evaluation. More recently, WBs have started to harmonize data collection and

[10] Integrated Administration and Control System.

processing methods with EU practices. However, datasets, particularly as regards agricultural policy measures, still do not fulfill all analytical needs. In the future, this should be improved upon, updated and used for agricultural policy analysis on a regular basis. A part of these activities could be outsourced to independent research and public bodies.

Finally, ideas for future common projects need to be developed. The same project that the OECD implemented for the Central and Eastern European countries in the 1990s could be considered – to organize regular preparation of annual country reports and country comparisons, accompanied with seminars and conferences, where decision-makers could also be included [15)]. Moreover, the impact assessment of EU integration effects with price convergence and policy harmonization studies should be prepared. To be able to assess effects and upgrade analytical capacity, it would be important to include the accession countries into the current sector modeling at the EU level. Modeling in groups and modeling tools such as Agmemod and CAPRI should be particularly considered.

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CHAPTER 2

REVIEW OF AGRICULTURE AND AGRICULTURAL POLICY IN ALBANIA

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1 INTRODUCTION

Albania is located in the southwestern part of the Balkan Peninsula. It is bordered by Greece to the south and southeast, by FYR Macedonia and Kosovo to the east and Montenegro to the north. In the west there is the Adriatic and the Ionian Sea (362 km of coastline). The country is administratively divided into 12 counties and 374 local government units (communes and municipalities). Albania is a relatively small country, covering an area of 28,748 km^2, of which approximately 25 % are plain lands, about 47 % hilly land, about 28 % alpine land (highlands), and approximately 1,350 km^2 are covered by water. Albania has a total population of 3,182,000 inhabitants and a population density of 110.3 inhabitants/km^2 [7]. The average altitude is 708 m above sea level.

According to the latest population data, Albania is growing at a relatively low rate (0.6 %) due to a high level of emigration and the continuous decrease of the number of births. The total fertility rate is decreasing (1.4 children per woman of reproductive age in 2008) and the infant mortality rate is stable (at 19.2 per 1,000 live births). In general, the Albanian population is considered young, with an average age of 32.5 years, and 24.1 % were younger than 14 in 2008 [14]. In 2008 the sex ratio was 98.9 men per 100 women. Albanian women enjoy a higher life

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expectancy at birth than do men, with 77.2 years in 2006, against 72.4 years for men [7].

Many rural inhabitants continue to migrate to urban areas, particularly from the poorer North, in response to low incomes from farming, limited off-farm opportunities and poor rural infrastructure and public services. Internal migration has changed the ratio of the urban/rural population in the country. In 2008 the urban population grew to 48.7 %, while the rural population decreased from 57.3 % in 2001 to 51.3 % in 2008. More than one-third of the country's population is located in the counties of Tirana and Durres, which together cover only 8 % of the country's territory [8].

That more than half of the population still lives in rural areas and is largely engaged in agriculture implies that agricultural development affects the socio-economic conditions of a large number of people. Indeed, this sector will face challenges and opportunities in the context of EU integration.

The Republic of Albania submitted its application to be an EU candidate country in April 2009. Once the status of candidate country is granted by the EU, Albania will have access to IPARD[1] funding. But to be able to make use of the funds under IPARD, Albania has to fulfill certain requirements according the IPA regulations, such as the preparation of a Rural Development Program (RDP) and the establishment of an operating structure to implement the RDP. With that objective in mind, the EU is financing several ongoing projects, one of which is the project Capacity Building for Implementing the Rural Development Strategy. This project will support the Ministry of Agriculture, Food and Consumer Protection (MAFCP) in its efforts to implement the rural development policies under IPARD.

2 MACROECONOMIC ENVIRONMENT

During its 19 years of democracy, Albania has experienced deep political, institutional and socioeconomic changes. At the beginning of the economic reform process, the Albanian authorities paid special attention to the implementation of a clear platform for the strengthening of the macroeconomic situation by implementting strong monetary and fiscal measures to decrease the budget deficit. In addition, they aimed at the liberalization of trade policies to diminish currency oscillations and eliminate control over the exchange rate, as well as the liberalization of prices and internal markets.

These measures helped stop a significant decline in production which characterized the initial phase of transition. Output declined by more than 50 % from the end of 1990 to mid-1992. The budget deficit reached 44 % of gross domestic product (GDP) by the end of 1991 and widened to more than 50 % in the first half of 1992.

[1] Instrument for Pre-acession Assistance, component V – Rural Development.

At the end of 1991, inflation hit triple digits with a 104 % change from the previous year, and by early 1992, monthly inflation was 10 % to 15 %. A one-year reform program from mid-1992 to mid-1993 introduced fiscal and monetary control combined with a comprehensive price and exchange system, with the support of international financial and technical sources. Throughout the 1990s and early 2000s, remittances sent by Albanians working abroad provided an important input for the Albanian economy [3].

Since 1993, there has clearly been a recovery in macro-economic indicators and national production. From 1993-1995, inflation and the budget deficit were brought under control following targets fixed by the medium-term stabilization program, which indicated one of the best performances of Albanian economic reform. In the production sector, agriculture, by then almost totally privatized, was the first to respond to the price signal increasing the availability of food in the domestic market. Although still quite high, unemployment slowly decreased, driven by the rapid development of the private sector. The speed of private entrepreneurial reaction to Albania's opening and liberalization of the economy was better than expected, but the collapse of the pyramid schemes in 1997 and the economic, political and social instability that followed were a tremendous setback for the economy. This situation started to improve after 1998. Political instability in 1998 and the difficulties caused by Kosovo refugees in 1999 did not greatly affect macro-economic performance.

The Albanian economy has been on a solid path of growth throughout the last decade. It is actually among the most dynamic transition economies in the region, achieving an average yearly real growth of about 6 % per year between 2000 and 2008. The Albanian economy is characterized by stability reflected in low inflation that typically ranges between 2 % and 3 %, and in a relatively stable exchange rate of the domestic currency, the Albanian lek (ALL). This stability is also thanks to the monetary policy conducted by the Central Bank of Albania, which is widely considered as successful institution and relatively independent [5, 10].

Table 2-1: Selected macroeconomic indicators, 2000-2008, Albania

	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
Change in real GDP – %	6.7	7.9	4.2	5.8	5.7	5.7	5.5	6.1	7.9
Inflation rate (annual average) – %	4.2	3.5	1.7	3.3	2.2	2.0	2.5	3.1	3.4
Unemployment rate – %	16.8	16.4	15.8	15.0	14.4	14.1	13.8	13.5	13.1

Source: INSTITUTE OF STATISTICS [7].

The Albanian economy has benefited from economic reforms that have provided development opportunities for the private sector, sustained market development, promoted competition, stimulated flexible labor markets and increased social revenues. Albanian GDP per capita increased to EUR 2,785/year (USD 4,073/year) during 2008. Household expenditures have increased more than threefold since 1992-1993, which has created changes to the share of the expenditures of the main

components. The Living Standard Measurement Survey shows that Albanian expenditures for food consumption, beverages and tobacco have decreased from 61.3 % of the total budget in 2005 to 57.8 % of the total budget in 2008. Consequently, the absolute poverty rate fell from 25.4 % in 2002 to 18.5 % in 2005, and 12.4 % in 2008, thus reducing the poverty rate nearly 50 % from 2002 to 2008. The extremely poor population (those with difficulty meeting basic nutritional needs) decreased from about 5 % in 2002 to 3.5 % in 2005, and 1.2 % in 2008 [8, 16]. The decline in rural poverty was slower than the decline in urban poverty, but Albania remains one of the poorest countries in Europe, and its economy and society are still largely agriculture- and rural-based [16].

From 1995-2008, the Albanian labor market went through important changes, and one of the main factors that affected these changes was the privatization process of state-owned enterprises. During privatization, employment in the public sector decreased significantly, while employment in the private sector increased. The unemployment rate remains relatively high, at 13.1 % in 2008, despite a significant decrease by almost one-quarter since 2000.

The recent global economic crisis was also felt in Albania, and tested the foundations of the economy in terms of financial stability and macroeconomic balances. During 2009 the Albanian economy was characterized by positive growth and sustainability of public debt and the balance of payment. According to the Bank of Albania, the Albanian economy has experienced positive economic growth during the first nine months of the year 2009. However, the growth rate was characterized by a progressive slowdown (down to about 3 %). Such performance was conditioned by reduced foreign and domestic demand, lower remittances, a tight liquidity situation, financing restrictions and increased uncertainty [2].

3 SITUATION OF THE AGRICULTURAL SECTOR

3.1 Importance of agriculture in the economy

Agriculture remains one of the largest and important sectors of the Albanian economy. Albania has been, and will remain for several years, a country dominated by agricultural activity. The specific weight of the gross domestic product from the agricultural sector was 60.1 % during the 1950s, 24.1 % during the 1970s, and less than 20 % in the 2000s.

During transition, the entire Albanian agriculture sector witnessed a prolonged expansion, sustained by changes in incentives (from collective farms to private holdings), diversification and growth in agro-processing. Agriculture is now undergoing a transition from a largely subsistence sector to a commercial one. Currently, the sector contributes about 18 % to the total gross value added (GVA), which is high compared to the EU and neighbouring countries. Agri-food products counted

for 16.6 % and 6.4 %, respectively, of total exports and imports in 2008, confirming once again the importance of this sector.

Table 2-2: Share of agriculture in the economy (in %), 2000-2008, Albania

	2000	2001	2002	2003	2004	2005	2006	2007	2008[1]
Share of agriculture[2] in GVA (current prices)	25.5	23.6	23.4	23.5	22.3	20.6	19.4	18.9	18.5
Share of agriculture in total employment	71.8	57.2	57.2	57.6	58.2	58.2	58.0	58.9	57.4
Share of agri-food[3] exports in total goods' exports	:	:	:	:	:	17.6	17.9	16.2	16.6
Share of agri-food[3] imports in total goods' imports	:	:	:	:	:	8.2	7.9	7.3	6.4

Source: INSTITUTE OF STATISTICS [7].

Notes: [1] Forcast of the Ministry of Finance.
[2] Agriculture together with forestry and fishery.
[3] Agri-food trade according to Combine Nomenclature of Custom Tariffs (CNCT).

Agriculture productivity has improved in recent years, possibly as a function of capital accumulation, and the sector appears to have potential for growth. However, a substantial portion of agricultural production remains subsistence-oriented. Important constraints to competitiveness need to be overcome to increase Albania's competitive advantage in agricultural production, particularly against a backdrop of increasing regional competition and the need to harmonize with EU legislation and standards. In order to meet these challenges, the sector must accelerate its transformation, which will have important implications for rural areas [17].

3.2 Natural conditions and land use

Lying between the sea on the west and mountains to the east, Albania resides between two main climatic zones – the Mediterranean zone and the Continental zone of Central Europe, and has relatively short and mild winters and relatively hot and dry summers. The annual mean air temperature varies widely across the country. Based on agro-climatic conditions, Albania is divided into four main zones [1].

Southern part and coastal plains zone extends from Lushnja to Saranda, including the Elbasan valley. Its climate is characterized by a relatively Mediterranean climate with hot summers. Winter is mild and wet with an average temperature of 9.8^0C in January. The average annual rainfall is 800-1,000 mm, but only about 12 % of the total falls between June and September. This area has good conditions for growing most crops such as cereals, vegetables, potatoes, dry beans, forage, industrial crops, and fruit trees including citrus and olive trees.

Central and northern part of the coastal plains zone is located 180 m above sea level and is characterized by a Mediterranean climate, with hot and dry summers.

Winter is wet and frosts are possible. The climatic conditions are suitable for growing crops such as cereals (mainly maize), vegetables, winter forage, vineyards and fruit trees.

Hilly area zone lies about 800 m above sea level and extends from the south to the north, but is cut by some river valleys going from the east to the west of the country. The average temperature is 3-4^{0}C lower than the coastal zone, but with frequent frosts. The plateau of Korça is the most important agricultural area of this zone. This area has good potential for irrigation and the cultivation of cereals, potatoes, vegetables (especially late vegetables), white beans, vineyards, and fruit trees, as well as industrial crops such as cotton, sunflowers, etc.

Mountain area zone is located approximately 800 m above sea level and is characterized by a continental climate, with rainfalls varying from 600-1,000 mm. The north part of this zone in the Dinaric Alps has the highest amount of rainfall in Europe, reaching approximately 3,000 mm per year. Most of this area is covered by forest and pasture, while the arable land is very limited. The main crops cultivated in this area are wheat, maize, fodder crops, some vegetables (mostly late season and dry varieties), and potatoes and fruit trees, which have expanded mostly at the expense of pasture area.

Agricultural land (about 1.12 million ha) covers about 39 % of the total surface of the country, of which 584,000 ha (about 52 %) is arable land, 123,000 ha is under permanent crops and 415,000 ha (37 %) is grassland. The forest area covers about 36 % of the total surface of the country and other land about 25 % [7]. According to preliminary results of the Albanian National Forest Inventory, the first nationwide analysis of remote sensing data for the years 1991 and 2006, broad land-cover categories changed relatively little. During the last 15 years, the agricultural area decreased by 1.4 %, especially due to the expansion of urban areas on former agricultural land (mostly in the surroundings of Tirana and other major cities), without pronounced hot spots of change across the country.

Over 75 % of Albania is hilly and mountainous, especially in the north and east, with most arable land and fruit tree areas concentrated in the coastal and western plains (about 43 %). A further 34 % lies in river valleys, while about 23 % is in mountainous areas. Only 16 % of the land lies below 100 m above sea level, 55 % falls between 100 and 1,000 m, and 29 % is above 1,000 m. About 44 % of agricultural land has a slope of less than 5 %, 37.5 % has between a 5 % and 25 % slope, and for about 18.5 % of the agricultural land, the slope is above 25 % [9].

About 76.5 % of arable land is privately owned by rural families, and the remainning part (about 137,000 ha) is still state property, of which: (i) about 110,000 ha are managed by communes and municipalities (land refused by farmers because of low quality and long distance from the living area of the village); while (ii) 27,000 ha is still available public land and remains in a land fund for physical compensation of the pre-1946 landowners who lost their land ownership during the communist

regime. However, land management still faces significant problems, of which the most important are: completion of the land registration process and related legal and administrative regulation of the land ownership rights and documentations; resolution of land property conflicts; development of land market for agriculture use; improvement of management and the protection of privatized agriculture land, and improvement of land use profitability [15].

Albania has extensive underground water resources and a favorite climate for the production of certain agriculture products, especially the early production of vegetables. Seven main rivers run from east to west and there are also about 650 small and medium reservoirs for irrigation, with a total storage capacity of 560 million cubic meters.

3.3 Farm structure

The farm structure is obtained from the annual farm survey (a sample stratified survey). The methodology of the survey will be updated according to the list of agricultural holdings based on the Census of Agriculture, which is planned for 2012.

The farm size in Albania is very small, on average 1.2 ha [11], compared with an average of about 5 ha for Central and Eastern European countries and 27 ha for Western Europe [17]. About 25 % of farms have less than 0.5 ha; about 64 % have from 0.6-2 ha, while only about 11 % of farms have more than 2 ha of agricultural land. In addition, these farms are composed of an average of 3.9 parcels, with an average parcel size of 0.3 ha. Farm and parcel size are the smallest in the poorer regions of Kukes (average 0.5 ha and 0.17 ha) and Diber (0.7 ha and 0.18 ha) and are the largest in Fier (average 1.7 ha and 0.48 ha).

The majority of farms (84 %) combine crop and livestock farming, with the rest having crops only. Crops are cultivated by about 99 % of farms; about 40 % of farms have fruit trees, while about 32 % of farms leave at least a portion of the farmland fallow [11].

During the early 2000s, a slight consolidation process of agricultural land has been taking place. As a consequence, in 2008 the overall number of farms has decreased by about 14 % compared to 2000, and the average farm size has slightly increased, while the total farmed agricultural area has remained almost unchanged. The farm consolidation process has progressed very slowly, while the fragile land market (especially through land renting) has contributed to a slight reduction of subsistence farming and an increased efficiency of consolidated farms compared with those staying in autarchy [17].

Table 2-3: Family farm number and area farmed, 2000 and 2008, Albania

	2000	2008	Change
Number of farms – 1,000	413	357	-14%
Area farmed – 1,000 ha	429.5	428.4	0%
Average size of farms – ha	1.04	1.20	15%

Source: MAFCP [11].

Together with the slight increase in farm size, during recent years a tendency towards farm specialization is also noticed, which is in line with the evolution of market demand and productivity gaining opportunities. It can be observed that the number of larger farms (more than 2 ha) has increased by 3 %, while the number of smaller farms (0.1-0.5 ha) has decreased by 18 %.

Table 2-4: Change in number of farms by type between 2005 and 2008, Albania

	Farms with crop & livestock	Crop farms without livestock	Farms with field crops	Farms with permanent crops	Farms with fallow land	Farms total
0.1-0.5 ha	-27%	47%	-20%	-40%	49%	-18%
0.6-1.0 ha	0%	44%	5%	35%	67%	5%
1.1-2.0 ha	-10%	117%	-3%	10%	16%	-3%
2.1 ha +	-7%	296%	3%	9%	12%	3%
Total	**-45%**	**73%**	**-15%**	**14%**	**143%**	**-13%**

Source: MAFCP [11].

There is a generally-observed trend towards increased specialization in both livestock and crop production. The tendency of consolidation and specialization are also noticed in the fruit trees and vegetable sector. The specialization tendency towards the fruit trees subsector is more present in the Korca and Dibra regions, while specialization towards vegetables is mostly present in the plain areas such as the Fier, Berat and Durres regions.

The consolidation process is even more evident in the livestock sector. There is a growing number of farms that belong to the larger-sized farms (more than 10 heads). The number of larger cattle farms, with between 6-50 heads, has almost tripled since 2005, which marks a drastic change in the sector. The same tendency is observed in small ruminants, with the number of commercially-sized flocks of sheep and goats increasing rapidly

Thus, it can be concluded that there is a slight consolidation process characterizing the overall agricultural sector. However, the pace of consolidation is still slow and the average farm size remains too low to be competitive, while most farms are still subsistence or semi-subsistence.

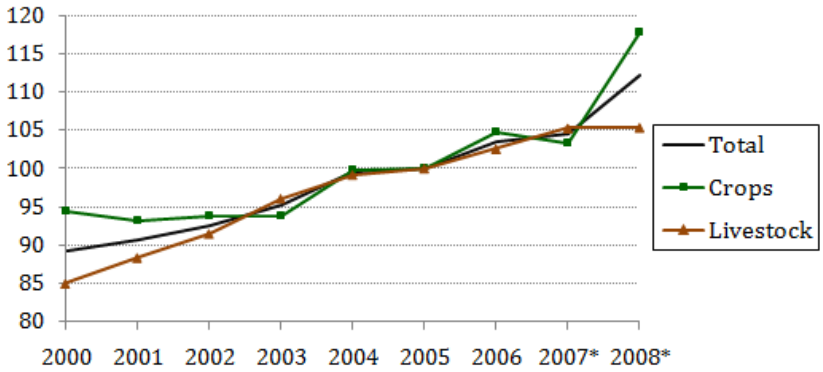
3.4 Agricultural production and output

The overall agricultural and food industry production has slightly increased during the last ten years. In 2008, it amounted to approximately EUR 2.14 billion (representing an increase of about 34 % compared to 2000, and an increase of about 12 % compared to 2005), of which about 26 % was in the agro-industry.

Livestock is the most important agricultural subsector, representing 52 % of the total value of agricultural production in 2008, followed by field crops with about 29 %, and then fruit trees with about 15 %.

Both crop and livestock production have been characterized by continuous growth, but crop production has oscillated, while livestock production has grown along a more stable path.

Figure 2-1: Agriculture production volume indices, 2000-2008 (2005=100), Albania



Source: MAFCP [11].

Notes: * Provisional data.

The overall number of livestock has decreased from 2000-2008. The strongest decrease was observed in the category of cattle, including cows. The number of small ruminants has also slightly decreased during the same period, while the number of pigs has increased significantly, by more than 50 % since 2000. However, the total output of livestock production has significantly increased as a result of improved production techniques, improved breeding, feeding and overall animal health care.

Table 2-5: Number of main livestock categories (in 1,000), 2000-2008, Albania

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Cattle	728	708	690	684	654	655	634	577	541
of which Cows	448	441	435	443	435	430	420	396	360
Pigs	103	106	114	132	143	147	152	147	161
Sheep and goats	3,045	2,933	2,773	2,919	2,738	2,701	2,770	2,729	2,620

Source: MAFCP [11].

Honey production has significantly increased during these years; in 2008 it represented approximately 134 % of the total production in 2000, followed by egg production (with an approximately 51 % increase compared to 2000) and meat production (with about a 25 % increase). Regarding milk production, it has experienced only a slight increase (about 10 %) with fluctuations during the whole period.

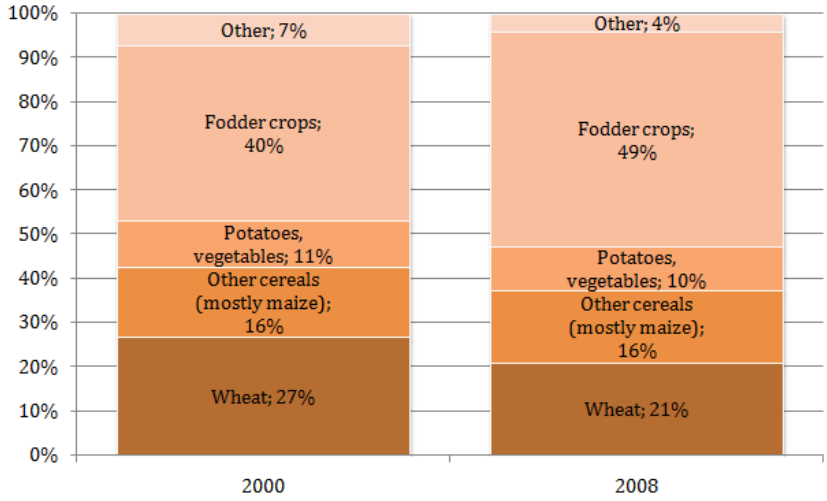
In recent years, farmers have become more interested in fruit tree plantations and vineyards. Fruit trees are cultivated by almost 80 % of Albanian farmers. This subsector has witnessed the most rapid development in terms of area cultivated and total yields.

In general, unlike livestock and fruit production, the field crops have shown significant fluctuations both in terms of area cultivated and volume of production. Among field crops, forage production has the highest growth rate. Forage crops (especially maize and alfalfa) are cultivated on about 30-35 % of the farm surface area. The area cultivated for forage is increasing, while wheat and maize production for grain is decreasing.

Fodder crops dominate arable land, and its share has increased by more than 9 percentage points in 2008 compared to 2000, a result of the growing interest in the livestock sector. The cereals area dropped by about 6 percentage points, mainly on account of the wheat area. This reduction reflects the low competitiveness of the Albanian farming conditions related to these crops due to the small farm size, land fragmentation, limited mechanization and thus the orientation of farms towards more competitive and profitable crops. In addition, the increased production of fodder crops during the abovementioned period reflects the growing relative importance of the livestock sector.

Within the other field crops, vegetable production has shown the highest increase, especially through greenhouse production. The main factors that have stimulated the increase of greenhouses are market demand and the high potential incomes per area unit.

Figure 2-2: Breakdown of harvested area by main crops, 2000 and 2008, Albania



Source: MAFCP [11].

The main agriculture subsectors, especially fruits, vegetables and livestock have exhibited progress and improvements in efficiency, which is reflected in higher yields and production quantities.

Table 2-6: Average wheat and milk yields, 2000-2008, Albania

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Common wheat (t/ha)	3.0	2.8	3.2	2.9	3.1	3.2	3.0	3.6	4.0
Cow's milk (kg/cow)	1,801	1,905	2,018	2,041	2,108	2,163	2,276	2,192	2,486

Source: MAFCP [11].

As can be seen from the Table 2-6, since 2000 in the cereals subsector the wheat yield has increased by one-third, and in the livestock subsector, thanks to breeding improvements, the milk production per cow has increased by 38 %, thus enabling an increase in the total milk production despite the decrease in the number of milking cows.

However, the agricultural sector still faces significant problems, with productivity lagging significantly behind the agricultural sectors of Albania's neighbors and the rest of Europe.

The main obstacles to the improvement of family farm productivity are factors such as: limited farm size/insufficient land; land fragmentation; broken relief and therefore difficult working conditions; poor infrastructure in general and especially a lack of irrigation infrastructure; market limitations; limited availability of rural credit

to farmers, processors and other small rural businesses; poor quality of seeds, saplings and other inputs; and inadequate rural institutions, especially extension services.

Because of these constraints, the yields of agricultural products are much lower than their potential. Moreover, a significant proportion of agricultural land is now unused because of the substantial migration from rural to urban areas. This provides some opportunities for land rentals, and in some cases, long-term rentals have already been negotiated.

3.5 Prices and economic situation

In Albania, the prices of many agri-food products are not gathered regularly, especially at the producer level, while wholesale and retail prices are collected systematically by MAFCP and considered relatively reliable.

Table 2-7: Producer prices of certain agricultural products (in EUR/t), 2002-2008, Albania

	2002	2003	2004	2005	2006	2007	2008
Common wheat	191.9	185.4	201.3	194.9	199.1	226.5	292.7
Corn maize	204.7	206.5	223.2	211.8	208.8	258.9	268.3
Potatoes	204.7	260.3	246.7	190.0	243.8	250.8	227.6
Tomatoes	:	:	:	:	:	:	317.1
Apples	:	:	:	:	:	:	325.2
Peaches	:	:	:	:	:	:	487.8
Young cattle (live weight)	2,433	2,403	2,632	2,458	2,381	2,252	2,350
Pigs (live weight)	2,380	2,350	2,509	2,360	2,275	2,104	2,073
Lambs (live weight)	2,418	2,363	2,585	2,391	2,356	2,346	2,260
Chickens (live weight)	2,327	2,291	2,350	2,303	2,310	2,265	2,252
Eggs (1,000 pieces)	83	84	92	88	85	99	99
Cow's milk	308	298	318	337	320	300	303

Source: MAFCP [11].

Producer prices of wheat and corn maize have increased significantly since 2002, by more than half and one-quarter respectively, following world market trends. However, the producer prices of meat for all main livestock categories and milk have remained relatively unchanged during the same period.

At the monthly level, producer prices of fresh fruits and vegetables are characterized by strong oscillations. Due to the lack of appropriate collection and storage capacities, the price received by farmers for the sale of their produce varies heavily during the year, and for most local products it is often reduced by about 70-80 % during peak production season. The highest fluctuations are noticed for the most perishable fruits and vegetables such as apple, pears, cucumber, young onions, etc.

According to national accounts, the added value of agriculture and the agri-food sector is approximately EUR 1.2 billion, and given that about 756,000 people

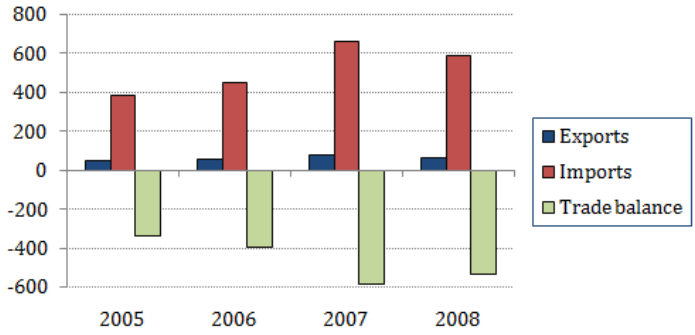
are employed in the agricultural sector, the average value added per employee is EUR 1,700. This value is very low compared to the EU 15, but also to the new EU Member States, where the average added value per employee is EUR 26,000 and EUR 6,500, respectively [12]. These low levels of income are a result of small farm size, lack of mechanization, and problems related to distribution and access to markets.

The majority of agricultural production remains oriented towards self-subsistence, while only about 35-40 % of production is oriented to markets. Approximately 12 % of farms earn less than EUR 82[2] from crops and livestock sales; about 30 % of farms earn from EUR 82 to EUR 820; 45 % earn from EUR 820 to EUR 3,250; and the top 14 % earn more than EUR 3,250 [11]. This suggests that for small farms, the transition away from agriculture may be underway. Remittances are also an increasingly important factor in rural incomes. Around one-third of farming households receive income from remittances.

4 AGRICULTURAL TRADE

Despite the high share of agriculture in GDP, Albania's agricultural export performance is weak, with an export/import ratio of 1:10, leading to a trade deficit of about EUR 531 million in 2008. During recent years, the agricultural trade deficit has increased significantly – between 2005 and 2008, the trade deficit of agri-food products increased by 58 %.

Figure 2-3: Agriculture and food industry trade (in EUR million), 2005-2008, Albania



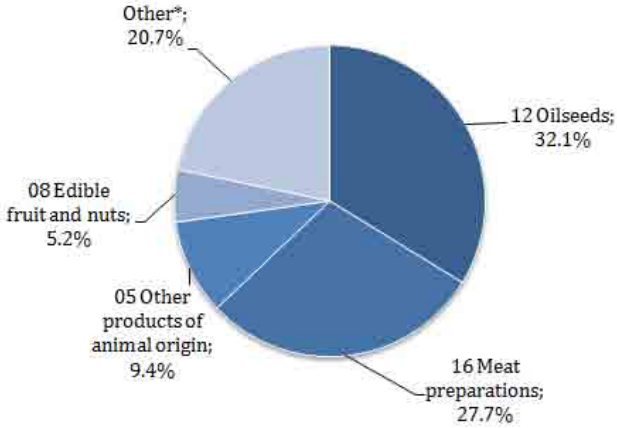
Source: GENERAL DIRECTORY OF CUSTOMS [4].

[2] The exchange rate used is 122 ALL/EUR.

Both agri-food exports and imports have increased during recent years. Imports of agri-food products spiked in 2007 as a result of shrinking domestic production due to the drought that hit the country.

The best Albanian export products are niche market products which require labor-intensive production methods, for example medical and oleaginous herbs and seeds (group 12 in Figure 1-7), frog legs, and fish (group 16). Albania is one of the leading world suppliers of certain herbs such as sage, thyme, etc. In addition, Albania has great potential and has recently begun the export of fresh vegetables (especially early season vegetables).

Figure 2-4: Composition of agri-food exports by main commodity groups, 2008, Albania



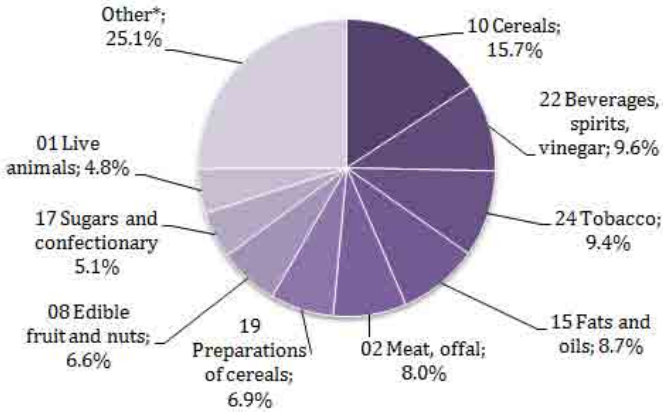
Source: MAFCP [11].

Notes: Other*: Groups of products with a share below 4.5 % each of the total.
Agri-food trade according to Combine Nomenclature of Custom Tariffs (CNCT).

A number of agribusiness in various sub-sectors (e.g. meat, vegetables), mainly those which export their products, import the raw materials necessary for their processing industry. The domestic meat processing sector relies largely on imported raw meat (mainly from Brazil and Argentina). This is partially the case for other important products too, including wine and vegetable oil.

Important elements of the basket of basic products have to be imported, such as cereals, meat, and fruits, mostly during the off-domestic production season. For example, for fruits such as apples, imports are almost non-existent during the Albanian production season, while they meet most of the domestic demand during later stages.

Figure 2-5: Composition of agri-food imports by main commodity groups, 2008, Albania



Source: MAFCP [11].

Notes: Other*: Groups of products with a share below 4.5 % each of the total.
Agri-food trade according to Combine Nomenclature of Custom Tariffs (CNCT).

More than three-quarters of Albanian exports target EU countries, while more than half of imports come from the EU for 2008. Italy and Greece are Albania's most important trading partners (43 % of Albanian agri-food exports target Italy). Regional Western Balkan countries, especially Kosovo, FYR Macedonia and Serbia-Montenegro, are starting to become more important in the trade of agricultural products, also in the context of free trade agreements.

5 AGRICULTURAL POLICY

5.1 Agricultural policy framework

The two main strategy documents related to agriculture and rural development are Agriculture and Food Sector Strategy 2007-2013 and Rural Development Crosscutting Strategy for 2007-2013, prepared by the Ministry of Agriculture, Food and Consumer Protection and approved by the Council of Ministers.

Two other important relevant documents are the National Strategy for Development and Integration (2007-2013), which contains short- and middle-term objectives for all sectors, including the agricultural sector, and the Mid-term Budget Program, which identifies programs, objectives, products and activities that are scheduled within the government fiscal plan.

The main objectives of the Agriculture and Food Sector Strategy 2007-2013 are: (i) sustainable management of agricultural land as an important element of sustainable

agricultural development; (ii) improvement of employment, farm incomes and livelihood of rural families; (iii) improvement of the economic efficiency of the agricultural and food industry sectors, increase the productivity and quality of production; (iv) improvement of food safety and consumer protection; and (v) improvement of agricultural marketing. The key priority sectors defined for support are: fruits, olives and vineyards; livestock production; and collection, storage and processing of fruits, grapes, vegetables and livestock products (milk and meat).

Higher production should be the result of increased area allocated to agriculture – the revitalization of land that has been left uncultivated – and of higher productivity of plants and animals, through (direct) support of investments and technical assistance. The Agriculture and Food Sector Strategy foresees payments in the form of grants or credit, interest rate subsidies (or credit guarantee) for investment in production technologies, new plantations or breeding animals, equipment, agricultural machinery and storage capacities, etc. Support is foreseen for the production and processing levels of the agri-food chain.

The improvement of food safety standards will depend on the degree of improvement of production and marketing technologies, the improvement of food safety legislation through approximation with EU legislation and proper implementation, including improvement in the monitoring capacities in terms of both human and laboratory infrastructure. The Agriculture and Food Sector Strategy considers the enhancement of agricultural information (and statistic) systems as priorities for enabling improvements in marketing and agricultural land use.

The Rural Development Crosscutting Strategy was based on EU Rural Development Regulation, providing guidelines on the objectives and activities for the implementation of each axis.

The measures foreseen in the Rural Development Crosscutting Strategy 2007-2013 are organized around four main axes as follows:

- Axis 1: Improving the competitiveness of agriculture, agribusiness and forestry, including: (i) modernization and restructuring of agriculture; (ii) increase of value-added and quality in production and processing; (iii) sustainable and efficient forest management; (iv) increase of competence levels and employment.
- Axis 2: Preservation of cultural landscape and environmental protection, including: (i) preservation of landscape in less-favored areas; and (ii) environmentally-friendly agricultural practices.
- Axis 3: Improving the quality of life in rural areas and the promotion of diversification, including: (i) creation of employment opportunities in rural areas; and (ii) improvement of the quality of life in rural areas.
- Axis 4: Participatory rural development, including support for: (i) preparation of local development strategies; (ii) setting up and starting operation of platforms

for rural innovation; (iii) setting up and strengthening local action groups; (iv) implementation of local development strategies; (v) promotion of cooperation among regions; and (vi) development of international cooperation.

The legal framework for the implementation of the support measures for agricultural and rural development was further completed with the Law on Agriculture and Rural Development, which also provides indications on the establishment, functioning and role of the Payment Agency. The annual budget for agricultural and rural development support is provided by the annual government budget's laws followed by decisions of the Council of Ministers and related guidelines of the MAFCP for the implementation of support measures. The monitoring and evaluation system of the overall agricultural policy and the respective support measures is based on a set of indicators collected by the statistical system of the MAFCP and other official and ad-hoc sources.

5.2 Market and direct producer support measures

In the 1990s, Albania proceeded with a wide liberalization of the economy: the liberalization of prices and trade mechanisms, land reform, the redistribution of agricultural land and other assets of state farms and collectives, and the privatization of most of the state's marketing and agro-processing enterprises. During the years of transition, Albania has renewed its overall trade policies, including those related to agricultural products. Trade reforms underwent many new developments when Albania became a member of the World Trade Organization (WTO) in 2000.

Albania has developed a relatively liberal trade regime for the agricultural and food sector, which is mainly characterized by the following: the use of combined nomenclature for the classification of goods (HS-EU 2009); a simple tariff system, composed of 5 tariff levels for most favored nations (MFN): 0, 2, 5, 10 and 15 %, respectively, based only on the ad valorem principle; no tariff-quotas for the MFN; differentiated seasonal tariffs for a group of products of HS 07 and HS 08; no import or export promotion/support measures for agricultural products falling within the MFN system (no state aid).

Albania has notified the WTO of its licensing system for imports of the following agricultural products: (i) live animals, skins and biological materials for animal insemination and veterinary vaccines; (ii) plant protection products; (iii) fauna and flora products; and (iv) fish and fish products.

Albania signed the Interim Stabilisation and Association Agreement with the EU in December 2006, and began its implementation in April 2009. Albania is also a member of the CEFTA[3] agreement, which entered into force in July 2007, and has also been implementing the free trade agreement with Turkey since May 2008.

[3] Central European Free Trade Agreement.

In addition, Albania has signed an agreement with EFTA, which is expected to be ratified in the Parliament soon.

In the the current free trade agreements the level of liberalization of import and export related to agricultural products, processed agricultural products and fish and fish products is defined based on sensitivity level as follows: (i) for a group of products the custom tariffs are eliminated with entry into force of the agreements; (ii) for a group of products tariff quotas will be applied; (iii) the remaining products are not liberalized, so the MFN tariffs will continue to be applied. The management of fulfillment of the quotas is made by the General Directorate of Customs based on the "first-come, first-served" principle. The trading of all agricultural and food products with Kosovo is fully liberalized.

For all agricultural products in Albania (local or imported) a fixed VAT of 20 % is applied. For all exports above EUR 3,252, the VAT is reimbursed in accordance with the legislation in power. In addition, for exported products there is no application of the excise tax.

In recent decade, the agricultural policy environment has been relatively free of distortions without price controls, with limited subsidies and liberal trade policies with generally low and decreasing tariffs on agricultural inputs and products. It is worth noticing that the following measures are not applicable in Albania: production quotas; export taxes; export or import bank guarantees; tariff quotas outside free trade agreements; and direct market interventions (such as public procurement, public storage, etc.).

The very first attempts of the Albanian government regarding the implementation of the support measures similar to those of the Common Agricultural Policy (CAP) date to 2007. The direct support for agricultural production at the farm level was channeled through several measures based on the Law on Agriculture and Rural Development. Before that, the government has provided only subsidies for fuel used for agricultural mechanization and agro-processing (input subsidies). The scheme was implemented from 2004-2006 for a total of 191,898 beneficiaries.

The new direct support measures introduced since 2007 have had two objectives; firstly, to increase through new plantations the area covered by fruit trees, olives and vineyards, and secondly to target the livestock and arable crop production subsector as well. Furthermore, the support schemes of 2007-2009 for the agricultural sector are as follows:

- Payment of 77 EUR/cow for livestock farms that have above 10 ear-tagged and registered milking cows, but not more than 30 cows. Only farmers that use invoices when they sell milk benefit from this measure.
- Payment of 3.80 EUR/sheep for herds with more than 50 heads which are ear-tagged and registered. Only farmers that use invoices when they sell milk benefit from this measure.

- Payment of 3.80 EUR/beehive for farmers who own more than 50 beehives.
- Payment of 3.80 EUR/ha for the production of snails, up to 50 % of the plot value for one ha, but not more than 3,880 EUR/ha.
- For the protection of olive groves from the olive fly, support amounts to 125 EUR/ha of olive plantations of not less than 100 ha.
- For producing extra virgin olive oil, support is 0.75 EUR/liter.

5.3 Structural and rural development measures

New support measures were introduced in 2007, which aimed to promote and support investments in the new plantations of fruits, olives and vineyards. In 2008, the range of measures (schemes) and beneficiaries was expanded, as was the budget, which further increased in 2009.

In the context of rural development in 2009, the priority has been to increase the area planted by fruit trees, and to increase farm/production size to achieve economies of scale. The Albanian government has foreseen these support measures:

- Planting of fruit trees (apple, pear, plum, cherry, peach, hazelnut, strawberry, olives and citrus), not less than 0.4 ha for individual farmers and not less than 1 ha for groups of farmers, comprising 50 % of the project's value, but no more than 3,100 EUR/ha.
- Establishing new vineyards with a surface of not less than 0.5 ha for individual farmers and not less than 1 ha for groups of farmers, comprising 50 % of the total project's value, but no more than 4,600 EUR/ha.
- Drip irrigation on intensive orchards, citrus, and olives, comprising 50 % of the total project's value, but no more than 2,300 EUR/ha in 2008 and no more than 2,280 EUR/ha in 2009.
- Certifying BIO agricultural products from cultivated plants, up to 50 % of the cost of certification for local markets or export, but no more than 532 EUR/farm per year.
- Establishing wells for irrigation on orchards, citrus and olive trees, 50 % of the total project's value, but no more than 760 EUR/well.
- Changing the heating system in greenhouses that are 0.3 ha or more: 2,300 EUR/ha of greenhouse. For greenhouses with technical heating systems for vegetable production, changing the system from oil to solar, 11,600 EUR/ha in 2008 and 11,400 EUR/ha in 2009.
- Providing new plastic sheeting for establishing new heating in greenhouses of 0.2 ha or more, 2,300 EUR/ha of greenhouse. The maximum level of support should not be more than 2,280 EUR/ha of greenhouse.

- For mushroom production, 50 % of the equipment and installation value, but no more than 3,780 EUR/ha.
- Support through the interest rate subsidy for loans in the agricultural sector or agro-processing, and also for loans received during 2008 from the companies that collect, store and process agricultural and livestock products, as well as production and trade associations in agriculture based on the Law on the Reciprocal Cooperation Companies, up to EUR 15,200, but no more than 50 % of the interest rate and for no longer than 3 years.

To generally conclude, the support for new plantations of olives, vineyards and other fruit trees grew by 15 % from 2008 to 2009.

In addition, measures involving plant protection and marketing were foreseen:

- For sapling production of autochthonous varieties of the grape Kallmet, Debinë, Pules and Vlosh for seed-plots with a surface of no less than 0.3 ha, 9,120 EUR/ha.
- Production of autochthonous varieties of vegetables consolidated into one block from 0.1-1 ha for individual farms, or from 1-5 ha for farmers groups, up to a maximum of 1,520 EUR/ha.

5.4 Other (general) agricultural support measures

In addition to the two groups of measures presented in the previous sections, other measures also exist:

- Reduction in the amount of obligatory social contributions for all persons that are self-employed in agriculture. Paying social contributions in Albania is obligatory for employed persons above 16 years old. The amount of the contribution for persons who are self-employed in the agricultural sector is a fixed amount that is significantly lower than in other sectors. Still, farmers receive the same benefits from the social security system as do all other secured persons in other sectors. The total annual amount of the government's contribution to the social security system (as compensation to reduced individual contribution from farmers) is annually calculated based on the total number of secured persons in the agricultural sector.
- Exclusion from paying the agricultural land tax. The agricultural land tax is defined as a property tax and is collected and managed by the local government. In order to promote investment in the establishment of fruit trees and orchards, the land area planted with fruit trees is excluded from paying the land tax for a period of 5 years from the date of planting trees.
- Control of animal diseases and veterinary emergencies, which aims to reduce animal health risks and ensure consumer security. This includes managing the most risky animal diseases related to: (i) a series of animal diseases that have a high contamination risk and may cause significant economic losses for the sector,

such as foot and mouth disease; (ii) other diseases which, in addition to the risk of economic losses, also represent a high risk for consumer health, such as tuberculosis. To manage these diseases, a veterinary emergency budget is defined every year, to be used according to the needs that arise.

- To manage high phytosanitary risks in agriculture, including the management of emergencies related to interventions involving the riskiest diseases and pests for crops. For this measure, a government budget is defined every year within the overall budget of the MAFCP, to be used according to emerging needs during the year.
- Establishment of wholesale markets in the main agricultural production areas. This includes constructing 6 wholesale markets from 2004-2009 in Vlora, Lushnje, Korce, Shkoder, Kukes and Berat.
- Establishment of new slaughterhouses from 2005-2009, aiming to support the improvement of food safety and consumer protection related to animal slaughter and meat standards.

5.5 Overall budgetary outlays on agri-food policy

The annual budget for the Ministry of Agriculture, Food and Consumer Protection (MAFCP) is approved every year by the Parliament. This budget and the medium-term budget (three years) are the official documents wherein the budgetary items for agriculture, food and consumer protection are presented in a detailed way. In these documents the donors' funds are also included, since the MAFCP is co-financer. The main policies, objectives, activities and expected results are clearly described in these documents. For planning the budget, all the technical directorates of the MAFCP are asked to contribute[4]. The Department of Finance and Budgeting collects all the information and prepares the final budget proposal to be approved by the Government of Albania.

An overview of the agricultural and rural development measures supported by the budget of the Ministry of Agriculture Food and Consumer Protection is provided in Table 2-8.

[4] These directorates include: General Directorate of Agriculture Policy; General Directorate of Food Safety and Veterinary; General Directorate of Natural Resources and Advisory services; Administrative unit of Agriculture and all institutions depending on MAFCP; the 12 regional directorates for agriculture that are obliged to prepare their budget in detail; and recently, the newly-established payment agency.

Table 2-8: Direct agriculture and rural support measures financed through national budget, 2007-2009, Albania

Schemes implemented	2007		2008		2009	
	No. of projects	1,000 EUR	No. of projects	1,000 EUR	No. of projects	1,000 EUR
New planting of fruit trees	982	1,576	1,243	1,827	1,063	1,313
New planting of olive trees	608	950	1,004	1,567	2,231	2,935
New planting of vineyards	519	1,115	333	908	243	574
Drip irrigation system	–	–	178	330	100	178
Control of the olive fly	–	–	3,521	136	5	207
Certifying of bio agricultural production	–	–	8	1	9	2
Production of autochthon wine saplings	–	–	4	13	3	12
Establishing wells for irrigation	–	–	–	–	171	127
Providing new plastic sheet for green-houses	–	–	–	–	20	20
Improving the heating technology in greenhouses	–	–	71	420	13	57
Mushroom production	–	–	–	–	2	7
Premium per dairy cow (farms >10 heads)	–	–	843	889	1,229	1,218
Premium per milk sheep (farms >50 heads)	–	–	384	194	1,201	353
Payment per beehive (producers >50 beehives)	–	–	–	–	831	213
Payment per ha for intensive breeding of snails	–	–	–	–	9	22
Premium per liter for extra virgin olive oil production	–	–	3	20	7	70
Interest rate subsidy for loans to the agri-food sector	–	–	11	25	4	9
Total	**2,109**	**3,641**	**7,603**	**6,331**	**7,141**	**7,317**

Note: Own assessment based on publicly available data and internal documents of the Ministry of Agriculture, Forestry and Consumer Protection (compiled in APM database).

MAFCP funds from the state budget are provided for measures, linked directly to the production or services in the agricultural sector such as: irrigation, market infrastructure and information systems, advisory services, plant and animal health, food security and safety, establishing irrigation systems, etc, and since 2007 for several producer support schemes (measures) as well. For other measures such as supporting infrastructure, tourism and other measures in rural areas for improving the social and cultural conditions, the budget is planned and distributed to other ministries such as the Ministry of Economy, Ministry of the Interior, Ministry of Transport, Ministry of Tourism, Ministry of the Environment, Ministry of Health, Ministry of Education, etc. This means that there is not a unique resource for data, and the data are so spread out that it sometimes is a huge effort, or even impossible,

to find them and use them for better planning and coordination, let alone for policy-making and monitoring.

Therefore, it is not so easy to have an overview of the budget according to an EU understanding of agricultural policy measures in such a budget planning and expenditures system. Although the government has tried during recent years to ensure coordination through the MAFCP, which operates as the secretariat of the inter-ministerial committee for rural development, for better coordination of support measures and budget, the situation has not changed much. Rather, it is still missing a plan according to the EU-policy criteria and structures.

6 SUMMARY AND CONCLUSIONS

The Albanian economy is very dynamic. It is characterized by a high growth rate of more than 6 % per year between 2000 and 2008, as well as by stability and low inflation, which typically ranges between 2-3 %. Albania also has a relatively stable exchange rate. Unemployment remains relatively high, at 13.1 % in 2008, despite a decrease of almost one-quarter since 2000.

Recent trends in Albania suggest that it has the potential to be a modern and competitive agricultural sector, provided the right policy environment exists to engender sufficient private investment. Agriculture is one of the main sectors in Albania, contributing approximately 18 % to the total national GVA in 2008, while it still engages more than half of the employed persons in Albania. Nevertheless, as other sectors continue to grow, agriculture's relative contribution to GDP is likely to fall from its current relatively high level. Consequently, the number of people employed in agriculture will need to decrease proportionately.

Agricultural production has been marked by continuous growth for most of the last decade, with few exceptions such as 2007 due to draught, to which Albania is especially exposed as a result of an improper irrigation system. Both crop and livestock production have been characterized by growth. Agriculture's gross output value increased by more than 12.1 % from 2005-2008, with an outstanding increase of crops and a more stable growth of livestock.

One of the major challenges facing agricultural production is the small farm size, which hinders efficiency and the supply of high quantities, two requirements of the emerging supermarket chains, as well as importers. Moreover, the quality of inputs is often not good, while prices are quite high. Farmers also continue to use outdated technology and have insufficient post-harvest facilities. Food safety and quality is another major challenge, and one of the key factors limiting Albanian agri-food exports to EU countries and causing large trade deficits. For these reasons, Albania has been unable to fully benefit from both WTO membership and preferential treatment in EU markets [17].

However, there has been a slight consolidation process and increase in farm size over the last decade. Together with the increase of size, there is also a tendency for specialization in line with the evolution of market demand.

As a result of the land reform beginning in 1991, more than 90 % of agricultural land has already been (re)distributed to private farms, though all the land titles have not yet been distributed. The land cadastre is still not functioning properly, and uncertainty of property rights remains a challenge that impacts agriculture, land markets and agricultural sector development [6, 13, 15, 18].

Despite continuous agricultural production growth, Albania still does not meet the domestic demand and has a high trade deficit. Both agri-food exports and imports have increased over the last years, and so also has the deficit, which is more than half a billion Euros, or almost 10 times higher than exports. The import of agri-food products spiked in 2007 as a result of shrinking domestic production due to the draught that hit the country. Important elements of the basket of basic products continue to be imported, for example cereals, meat, fish and fruits. The best Albanian export products are niche market products which require labor-intensive production methods such as frog legs, fish and certain herbs. Albania is one of the world's leading suppliers of certain herbs such as sage.

Albania became a member of the WTO in September 2000 and has signed free trade agreements with neighboring transition countries, which together imply strengthening international trade liberalization and growing competition.

The Albanian government has implemented several measures and strategies to support agriculture and rural development. The two main strategy documents related to agriculture and rural development are Agriculture and Food Sector Strategy and Rural Development Crosscutting Strategy, prepared by the Ministry of Agriculture, Food and Consumer Protection.

The main objectives of the Agriculture and Food Sector Strategy are the increase of agricultural and agro-processing production and the improvement of food safety standards. Higher production should be the result of increased utilized agricultural area and the higher productivity of plants and animals, achieved through the support of investments and through technical assistance. The Agriculture and Food Sector Strategy foresees payments in the form of grants or credit, interest rate subsidies (or credit guarantee) for investment in production technologies, new plantations or breeding animals, equipment, agricultural machinery and storing capacities, etc., that were introduced in 2007 and 2008. The range of measures and budget were further expanded in 2009.

There has been limited progress in the area of food safety, veterinary and phytosanitary policy. The new law on food adopted in January 2008 establishes the general principles for food and feed hygiene. Implementing this legislation has begun and is expected to be challenging. The state budget also supported prophylactic

measures against brucellosis, tuberculosis, anthrax, and classical swine fever, while an upcoming EU project is expected to provide important support for food safety related to livestock. There has also been marked progress in the case of the phytosanitary sector. Overall, there has been some progress in improving the legal framework on agriculture and rural development, food safety, veterinary and phytosanitary policy, but further efforts are still required in order to enhance the capacity of all actors involved.

In the near future, the government should continue to avoid interventions in areas where the private sector is more effective, particularly given the resource constraints posed by a decline in available donor financing.

Priority should be given to enhancing the policy environment and strengthening institutions, improving access to extension services, promoting and protecting land rights and the market, and improving food safety standards. Last but not least, further harmonization with EU legislation should be the top priority.

The EU is currently supporting Albania as it implements IPARD. At the political level, recognition of the need to start adjusting to EU agricultural policy and its requirements is slowly increasing.

The lack of a concept for reforming agricultural policy in line with the future EU CAP, especially the 1st Pillar, as well as for developing and adapting existing institutions to the required standards, are seen as key problems, and are compounded by a low level of support through the Albanian agricultural budget.

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CHAPTER 3

REVIEW OF AGRICULTURE AND AGRICULTURAL POLICY IN BOSNIA AND HERZEGOVINA

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1 INTRODUCTION

Bosnia and Herzegovina is located in the Western Balkans, bordering Croatia (932 km) to the north and south-west, Serbia (302 km) to the east, and Montenegro (225 km) to the southeast. The country is mostly mountainous, encompassing the central Dinaric Alps. The northeastern parts reach into the Pannonia basin, while the south borders the Adriatic. The country has only 20 km of coastline around the town of Neum in the Herzegovina-Neretva Canton. Although the city is surrounded by Croatian peninsulas, by United Nations law, Bosnia and Herzegovina has a right of passage to the outer sea. The southern part has a Mediterranean climate and a great deal of agriculture. Central Bosnia is the most mountainous part of the country. Eastern Bosnia also features mountains and is heavily forested along the Drina River. Most forest areas are in the central, eastern and western parts of Bosnia. Northern Bosnia has very fertile agricultural land along the Sava River and the corresponding area is heavily farmed. This farmland is a part of the Parapannonian Plain that stretches into neighboring Croatia and Serbia.

Bosnia and Herzegovina declared independence in 1992. After a short period of escalating tensions, open warfare began in Sarajevo on April 6th, 1992. The war ended with the Dayton Peace Agreement in 1995. The Constitution of Bosnia and Herzegovina is part of this document. From 1995 onward, Bosnia and Herzegovina (BH)

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has been administratively constituted of three entities, the Federation of BH, Republika Srpska and District Brcko. The Federation of BH is further administratively divided into cantons (10), and Republika Srpska consists of regions. BHerzegovina is quite decentralized. The Council of Ministries at the state level is in charge of foreign affairs, security, defense, finance and treasury, justice, foreign trade and economic relations, communication and transport, civil affairs and human rights and refugees. All other fields, including agricultural policy, are assigned to entities' level.

According to the 1991 census, BH had a population of 4,377,033. Ethnically, 1,902,956 (43 %) were Bosniaks, 1,366,104 (31 %) were Serbs, and 760,852 (17 %) were Croats, with 242,682 (6 %) Yugoslavs. The remaining 2 % of the population (104,439) consisted of various other ethnicities. According to 2000 data from the CIA World Factbook [7], Bosnia's largest ethnic groups are Bosniaks (48 %), Serbs (37 %) and Croats (14 %). Large population migrations during the war caused demographic shifts in the country. No census has been taken since 1991, and political disagreements have made it impossible to organize the one planned for 2011. Since censuses are the only statistical, inclusive, and objective way to analyze demographics, post-war analyses are based on estimations. Most sources estimate the population to be approximately 4 million, representing a decrease of 350,000 since 1991. Approximately every fourth inhabitant lives in one of the five largest cities (Sarajevo, Banja Luka, Tuzla, Zenica, Mostar). The share of rural areas in BH territory is 88.9 % (45,547.5 km^2), and 70.4 % of the BH population (2.37 million) live there. According to data by municipality (2007), 115 municipalities out of 141 (total municipalities in both BH entities) are considered as rural according to OECD criteria (population density lower than 150 inhabitants per km^2). Population density in BH rural areas is 52 inhabitants per km^2, which is 25 % lower than the country's average (66 inhabitants/km^2) [3].

BH participates in the Stabilisation and Association Process. The Stabilisation and Association Agreement has been ratified by nineteen EU Member States so far. The EU provides guidance to the authorities on reform priorities.

Overall, BH is still at an early stage of approximation with the EU *acquis communautaire* in the fields of agriculture and rural development, food safety, veterinary and phytosanitary policy, and fisheries. Preparations are proceeding slowly. The strengthening of state-level capacities in the field of agriculture and rural development continues to be necessary. Preparations towards setting up structures to implement IPARD[1] need to be intensified.

[1] Instrument for Pre-accession Assistance, component V – Rural Development.

2 MACROECONOMIC ENVIRONMENT

The period 2000-2008 in BH was characterized by numerous reforms that have led the country in the direction of economic and social development and creating a stable political situation[2]. Certain progress in the process of reforms was facilitated by signing the SAA with the EU (June, 2008). Additionally, this period was characterized by constant economic growth of the gross domestic product (GDP), with an average annual rate of about 5 %. Although the global economic crisis had an insignificant impact on BH economic growth in 2008, data for the first quarter of 2009 indicate a significant decrease of economic growth in 2009. The deterioration of capital acquisition conditions (higher interest rates and shorter pay-back periods), the decrease of demand on domestic and foreign markets, and stronger competition on both regional and European markets took place. This endangers both existing and new employment positions, and therefore is a real threat for the BH standard of living.

Table 3-1: Selected macroeconomic indicators (in %), 2000-2008, Bosnia and Herzegovina

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Change in real GDP	5.5	4.5	5.5	3.0	6.3	3.9	6.8	5.9	5.4
Inflation rate (annual average)	4.8	3.1	0.4	0.6	0.4	3.7	6.1	1.5	7.4
Unemployment rate (registered)	39.7	40.3	40.9	42.0	43.2	42.1	43.1	42.4	41.3
Unemployment rate (ILO definition)	–	–	–	–	–	–	31.1	29.0	23.4

Source: AGENCY FOR STATISTICS OF BH [1], CENTRAL BANK OF BH [6].

Unemployment is still the greatest economic and social problem and is one of the main reasons why BH is among the poorest countries in South East Europe[3]. However, the official BH statistics do not include informal sector employment, which is not negligible. Using the International Labour Organization definition of unemployment (ILO), the annual BH unemployment rate is between 31.0 % (2006) and 23.4 % (2008).

The BH currency, the Convertible Mark, is tightly tied to the Euro and has been stable. Only in 2006 when the VAT was introduced did the inflation rate slightly increase. The highest inflation rate over the last decade was recorded in 2008 due to a remarkable increase in crude oil and food prices on the global market. The average annual inflation rate, measured by Consumer Price Index (CPI), amounts to 7.4 %. The highest increase of prices was recorded primarily for food and

[2] Introducing a unique VAT in the amount of 17% in 2006, which caused a significant increase of income in the budget, could be considered as the most important economic reform to date.

[3] The Human Development Index (HDI) for BH is 0.718, which is 27% lower than the EU average (0.914). A sizeable portion, 27.3% of the population, lives under the poverty line, while 11.5% live under the extreme poverty line [5].

beverages (12.1 %), rent and energy (8.5 %) and transport (11.2 %), which altogether amount to approximately 50 % of the CPI structure.

Data on the share of food, beverages and tobacco in total household expenditures are available only from 2004-2007. The share was slightly decreasing over the period, but still remained significant, amounting to 39.1 % in 2007, down from 39.7 % in 2004.

3 SITUATION OF THE AGRICULTURAL SECTOR

3.1 Importance of agriculture in the economy

Agriculture has always been an important sector for the BH economy. In the pre-war period, agriculture contributed 12-14 % to the national GDP. Just after the war, the role of this sector was even greater considering the destruction of the greatest part of the country's economic infrastructure.

Table 3-2: Share of agriculture in the economy (in %), 2000-2008, Bosnia and Herzegovina

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Share of agriculture[1] in GDP (current prices)	9.9	9.7	9.1	8.1	8.9	8.7	8.4	8.0	7.4
Share of agriculture[1] in total employment (ILO definition)	–	–	–	–	19.8	20.1	20.5	19.8	20.6
Share of agri-food exports[2] in total goods' exports	3.7	4.6	5.7	6.2	5.8	6.0	5.2	5.5	6.3
Share of agri-food imports[2] in total goods' imports	21.2	22.2	21.2	21.7	20.6	17.8	17.0	16.2	15.8

Source: AGENCY FOR STATISTICS OF BH [1] CHAMBER OF COMMERCE OF BH [8].

Notes: [1] Agriculture together with forestry and fishery.
[2] Agri-food trade according to Combine Nomenclature of Custom Tariffs (CNCT).

In the considered period of 2000-2008, the importance of agriculture as an economic branch is still evident, though its share of total GDP has a slight decreasing tendency. In 2000, the share of this sector in total GDP was 9.9 %, and eight years later it amounted to 7.4 %. Such a tendency can mostly be explained by a strengthening of other economic activities and less by a weakening of the agro sector. Agriculture does not have the same importance at the level of entities. Thus, in the Republika Srpska in 2000, one-fifth (20.2 %) of total GDP was derived from agriculture, while in the Federation of BH it was three times less (7.2 %). Considering the state level as well as the entity level, the decreasing tendency to participate in this sector is evident.

Statistical data on the share of agriculture in total employment (a bit more than 3 %) are not reliable indicators of the real situation in the country, as they do not include informal sector employment. Based on International Labour Organization (ILO)

indicators, the share of agriculture in total employment is significantly higher (around 20 % on the state level).

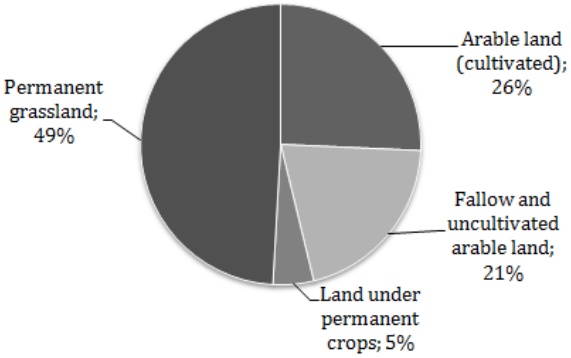
BH is net importer of food. The share of agriculture in total imports decreased over the observed period, but only due to faster growth of other commodities' import. The share of agriculture in total exports increased, but its share in total imports is still more than twice that of total export.

3.2 Natural conditions and land use

Considering climate, edaphic and orographic conditions, it can be generally said that BH has the potential for agricultural production, but conditions for agricultural development are rather challenging.

The total area of BH is 5,119,700 ha, of which agricultural area (2,136,000 ha) accounts for 41.7 %, while forest (2,710,000 ha) makes up 53 % of total area. In 2008, the total arable land was 987,000 ha, of which almost 44 % remains uncultivated. This is a long-standing problem for BH agriculture due to the war-deteriorated situation, coupled with the large number of refugees and displaced persons, minefields and migrations to bigger urban areas.

Figure 3-1: Agricultural land use, 2008, Bosnia and Herzegovina



Source: AGENCY FOR STATISTICS OF BH [1], FEDERAL OFFICE OF STATISTICS [15], STATISTICAL INSTITUTE OF THE REPUBLIKA SRPSKA [18], STATISTICAL OFFICE OF DISTRICT BRCKO [19].

Permanent grassland (natural meadows and pastures) makes up 49.1 % (1,049,000 ha), and permanent crops 4.7 % (100,000 ha) of total agricultural land. On average, there is 0.26 ha of arable land and 0.56 ha of agricultural land per capita in BH.

45 % of agricultural land is hilly (300-700 m above sea level), of medium quality and is suitable mainly for semi-intensive livestock production. Mountainous areas (above 700 m above sea level) account for 35 % of agricultural land. High altitudes, slope and poor soil fertility limit the use of these areas for agricultural production. Thus, it is mainly used for livestock grazing during the spring and summer. Less

than 20 % of total agricultural land is suitable for intensive agricultural production, and it is mainly located in flat regions and along river valleys. The soil available for agriculture in BH is fairly limited considering the proportion of quality and quantity of this basic agricultural resource.

No data exist on irrigated arable land, but it can be said with certainty that this share is extremely low, as it accounted for only 0.4 % before the war, and the war caused significant damage to the irrigation infrastructure.

3.3 Farm structure

Data on farm structure in BH are very limited. The last official data related to farm structure are from the 1981 census, since the data from the 1991 census includes only data on the total number of farms (569,581), but not their structure.

Considering the war and its consequences for rural areas, pre-war data cannot be considered relevant. So far, the only estimation of post-war farm structure can be found in the study by DG-AGRI [9]. According to that study, the estimated number of agricultural farms in BH is 515,000. It is assessed that over 50 % of this number (over 250,000) belongs to production units with an area less than 2 ha, and more than 80 % (over 400,000) is smaller than 5 ha. Just a bit more than 20,000 farms, or 4 % of the total number, are larger than 10 ha. It is obvious that the agricultural farms in BH are still small (the average is 3.3 ha) and they are divided into 7-9 smaller plots, which causes low productivity and efficiency. Small properties and the division of land areas limit adoption of modern agricultural techniques and technologies.

As opposed to private farms, state farms are much larger. However, in the post-war period farms have been left to themselves, without the privileged status that they had in the previous political system. Thus, mostly they either do not work or hardly work. Most of the farms have been privatized, and now there is only one state-owned farm in the Federation of BH.

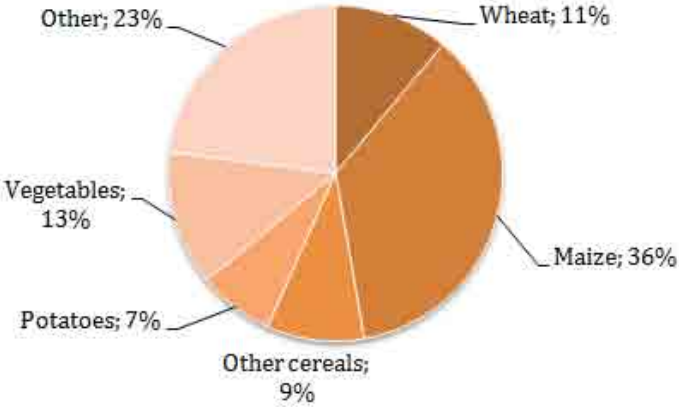
In both BH entities there are rules and regulations related to the land market, but the market itself has not yet been developed enough.

3.4 Agricultural production and output

Of 987,000 ha of arable land (2008), slightly more than half (56 %) is used. In the sowing structure of arable land, the dominant position belongs to grains (57 %), while the production of industrial crops in BH has only a symbolic character (1.5 %). Over the considered period of 2000-2008, the cultivated grain area decreased by 15 %. This is particularly the case for wheat production, which together with corn maize are the most important field crops. Thus, in 2008, these crops' cultivated area decreased by 17 % compared to 2000. Obviously, the level of minimum

producer prices[4] of grains (which are mostly determined when the vegetation season is close to its end) and insufficient direct support to producers are among the reasons for the smaller and smaller production of this strategic crop. Grain yields vary from year to year, mainly due to climate conditions. These differences are particularly obvious in corn maize production (475,000 tons in 2000 and 1 million tons in 2005).

Figure 3-2: Breakdown of harvested area by main crops, 2008, Bosnia and Herzegovina



Source: AGENCY FOR STATISTICS OF BH [1], FEDERAL OFFICE OF STATISTICS [15], STATISTICAL INSTITUTE OF THE REPUBLIKA SRPSKA [18], STATISTICAL OFFICE OF DISTRICT BRCKO [19].

Industrial crops have always had a very poor share in BH; oilseed production was symbolic up to 2004. Since the oil factory Bimal (Brcko) was repaired, the interest of farmers has increased. But in 2008, because of the lack of adequate support, farmers lost interest in this production. After the war, sugar beets were not produced in BH, and among other industrial plants, tobacco production should be mentioned, as it is the main source of income for a significant number of producers in Northern Bosnia. The existence of significant tobacco production in BH should be considered in the context of privileged status. Before 2002, when new support funds were introduced in the Federation of BH, tobacco, wheat and milk were the only products supported by premiums.

The area sowed by vegetables is fairly stable, and did not change much from 2000-2008, varying from 32,000 to 38,000 ha. Generally speaking, significant improvements have been made in the vegetable sector, in the improvement of standards, as well as in production itself and in strengthening production ties. Although there is no official data, greenhouse vegetable production is a subject of interest for many

[4] Buy-off prices.

farmers. In the past, this production branch existed only in Herzegovina, and today it is present in the whole country. Potato production is one of the rare agricultural productions that meets the country's needs. In 2008, 424,900 tons of potatoes were produced (10.6 t/ha).

Fruit production suffered serious damage during the war and is still recovering. The total production of fresh fruits in 2008 was 235.3 thousand tons, which is far below domestic needs. From 2000-2008, a positive trend could be noticed, considering the number of fruit trees as well as production as whole. This positive trend is explained by an increased interest of farmers and by stimulating agricultural policy measures related to new permanent crops (orchards and vineyards) that have been implemented since 2004. Wine grape production is similar to fruit production. Vineyards seriously devastated during the war are now being revived. In 2008, vineyards total estimated area was 3,800 ha, or more than 70 % of pre-war production capacities.

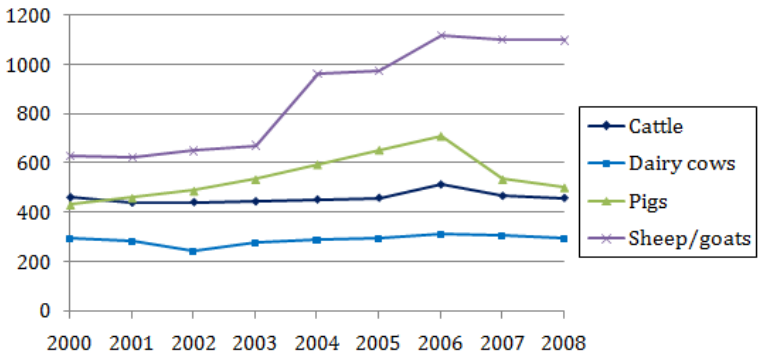
Due to the high share of grasslands (49 %) in total agricultural land, livestock production is a very important agricultural branch in BH.

Halved during the war, livestock stocks have been gradually renewing. In 2008, cattle stocks increased 55 % and sheep stocks reached 80 % of their pre-war level. In the analyzed 2000-2008 period, an increasing trend of herd size, especially sheep and poultries, is evident. In recent years, the number of large modern farms clearly oriented to market production has been increasing. Numerous trainings for farmers, conducted as part of international projects and programs of government and non-government organizations, have improved the skills and techniques of BH farmers significantly.

The years from 2000-2008 are characterized by constant and important increases in production of almost all livestock products. Thus, within eight years, milk production increased by 37 %, egg production by 112 %, and total meat production increased by 16.3 %. The increase in milk production was followed by the increase of yield per milk cow by 39.3 %.

The situation in the meat sector is worse. The increase in total meat production is a consequence of livestock number increase, but not of increase of productivity and yields. Thus, low productivity in meat production remains one of the toughest problems for which no adequate solution has been found yet. This especially refers to the beef and pork sub-sectors. Those two sub-sectors are the most important in terms of their share in total meat import and consumption within the whole period.

Figure 3-3: Number of main livestock categories (in 1,000), 2000-2008, Bosnia and Herzegovina



Source: AGENCY FOR STATISTICS OF BH [1], FEDERAL OFFICE OF STATISTICS [15], STATISTICAL INSTITUTE OF THE REPUBLIKA SRPSKA [18], STATISTICAL OFFICE OF DISTRICT BRCKO [19].

The absence of supporting measures for animal fattening, high input prices, price instability, consumer preferences and a high demand for younger meat categories make animal fattening less attractive. Thus, animals are being slaughtered young, with poor results in the meat production sub-sector. BH mostly satisfies its needs for meat from import, which causes a negative trade balance. The only sub-sector of meat production in which BH satisfies its needs is sheep and goat meat.

Table 3-3: Average wheat and milk yields, 2000-2008, Bosnia and Herzegovina

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Common wheat (t/ha)	3.3	2.4	3.0	2.2	3.7	3.1	3.2	3.5	3.7
Cow's milk (kg/cow)	1,835	1,936	2,258	2,012	2,064	2,174	2,178	2,429	2,559

Source: AGENCY FOR STATISTICS OF BH [1], FEDERAL OFFICE OF STATISTICS [15], STATISTICAL INSTITUTE OF THE REPUBLIKA SRPSKA [18], STATISTICAL OFFICE OF DISTRICT BRCKO [19].

Plant production yields have been increasing over the observed period but are still unsatisfactory and much lower than in EU Member States. The situation in the dairy sector is similar, thus indicating low production intensity. The meat sector records even worse results, as an increase in livestock was not followed by adequate production increases.

Small and fragmented land properties, poor technical equipment on farms, old production technologies, the low use of inputs, symbolic use of irrigation systems (0.4 % of total arable land) and still dominant extensive and natural production are just some factors that lead to low levels of agricultural production.

3.5 Agricultural prices

General price levels for agricultural products in BH are fairly high due to low intensity and high production costs, so the domestic market is not much integrated in international markets. From 2000-2008, some significant oscillations of producer prices in all important crop products is evident mostly due to climate influences on yields and the global increase of main inputs like fuel. A slow trend towards higher prices is characteristic for meat except for poultry, while milk prices were relatively stable in the analyzed period.

Table 3-4: Producer prices of certain agricultural products (in EUR/t), 2000-2008, Bosnia and Herzegovina

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Common wheat	128.8	135.2	136.2	141.9	140.3	125.5	134.8	167.7	244.4
Corn maize	138.5	140.0	108.8	125.0	136.3	103.4	115.3	193.8	210.7
Potatoes	243.9	201.5	138.1	263.4	127.7	81.8	143.2	102.3	153.4
Tomatoes	135.1	128.1	110.1	102.3	95.8	108.7	120.2	204.5	230.1
Apples	273.9	240.3	216.5	334.6	269.1	225.4	278.4	332.3	357.9
Young cattle (live weight)	1,598	2,270	2,568	2,353	2,308	2,913	2,925	2,710	2,966
Pigs (live weight)	1,089	1,419	1,428	1,104	1,396	1,497	1,347	1,227	1,611
Lambs (live weight)	2,544	2,558	2,255	2,603	2,058	2,311	2,766	2,556	2,914
Chickens (live weight)	1,402	1,116	1,137	1,017	1,151	1,086	956	1,482	1,278
Eggs (1,000 p.)	95.3	76.4	104.5	92.1	110.5	78.1	86.9	170.0	102.3
Cow's milk	239.7	228.8	235.9	245.7	249.6	229.9	218.4	248.2	297.9

Source: FEDERAL OFFICE OF STATISTICS [15], STATISTICAL INSTITUTE OF THE REPUBLIKA SRPSKA [18].

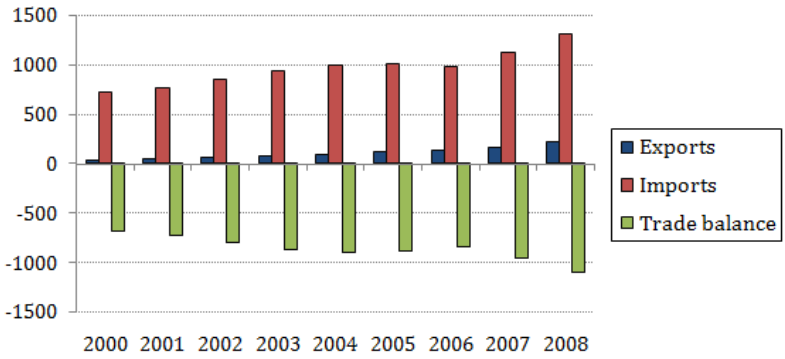
Note: Prices are calculated as weighted unit values from data on quantities and values of purchased products in the Republika Srpska and Federation of BH. For 2007 and 2008 prices refer only to Republika Srpska.

Inefficient and limited production on small plots, the extensive character of production, low level of farm equipment, insufficiently skilled farmers and the absence of state support in the procurement of inputs are important factors that make the prices of most agricultural products higher than in most EU member states.

4 AGRICULTURAL TRADE

Differences between BH and EU standards and legislation, an insufficiently recovered and undeveloped food industry, weak support for domestic production, a low level of market-oriented production for founding critical mass necessary for export, as well as problems with quality and high expenditures for the collection of products, are only some of the reasons for the unfavourable trade balance of BH agri-food products, which was EUR -1,103 million in 2008. Slow structural reforms in agriculture and not enough attention to direct foreign investments that could bring in fresh capital, new technologies, products and markets, also contribute to this situation.

Figure 3-4: Agri-food trade (in EUR million), 2000-2008 Bosnia and Herzegovina



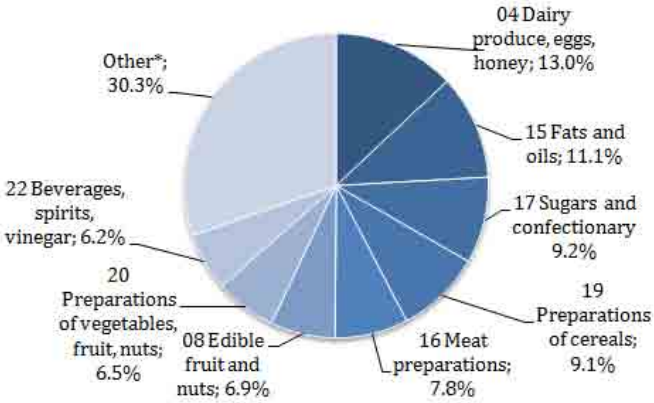
Source: CHAMBER OF COMMERCE OF BH [8].

Note: Agri-food trade according to Combine Nomenclature of Custom Tariffs (CNCT).

From 2000-2008, the constant increase of agri-food product imports is evident. In 2008, agri-food products represented 15.8 % of all BH imports. Encouraging in this respect is the increasing trend of domestic exports of agri-food products, though it is still very modest. In recent years the negative trade balance increased due to an increase of imports, and BH remains a net importer of all agricultural and food commodities.

Of the average total exports for agri-food products in 2007 and 2008, the greatest share was the group of milk and dairy products, next was animal and vegetable fats, then sugars and sugar products, meat preparations and edible fruits. But as for sugar, it has to be mentioned that BH recorded an export of this commodity and at the same time had no sugar production. This can be explained by the re-export of unregistered imports, indicating the existence of a still very strong black market and shadow economy.

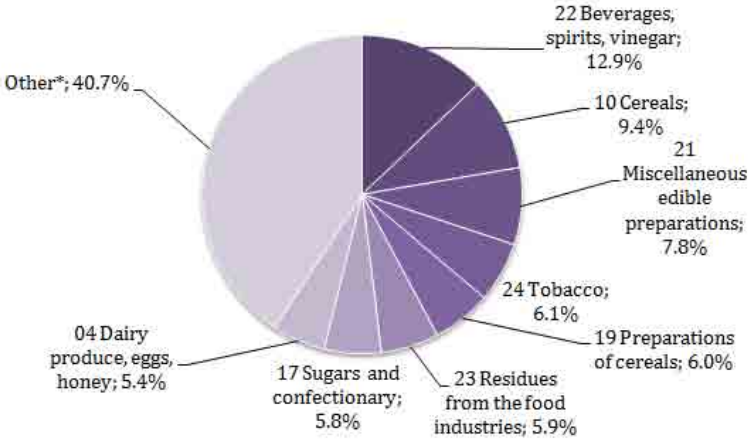
Figure 3-5: Composition of agri-food exports by main commodity group, average 2007-2008, Bosnia and Herzegovina



Source: CHAMBER OF COMMERCE OF BH [8].

Notes: Other*: Groups of products with a share below 5 % each of the total.
Agri-food trade according to Combine Nomenclature of Custom Tariffs (CNCT).

Figure 3-6: Composition of agri-food imports by main commodity group, average 2007-2008, Bosnia and Herzegovina



Source: CHAMBER OF COMMERCE OF BH [8].

Notes: Other*: Groups of products with a share below 5 % each of the total.
Agri-food trade according to Combine Nomenclature of Custom Tariffs (CNCT).

Of the average total imports of agri-food products in 2007 and 2008, the greatest share was made up of drinks and alcohol, cereals, miscellaneous edible preparations, tobacco and cereal preparations.

Because of traditional relations and consumer habits, as well as highly demanding standards and insufficiently competitive domestic production, with respect to agri-food products BH trades mostly with countries of the former Yugoslavia.

In 2008, total BH export of agricultural products amounted to EUR 217.1 million, and EUR 151.1 million (or 70 %) of that was exported to the Western Balkan countries. The rest of exported agricultural products mostly refer to EU 15 countries (EUR 34.8 million or 16.0 %), and the most important partners were Italy and Austria. From 2000-2008, an increasing trend of export to the EU 15 countries is evident.

Proportions are similar in the context of agricultural imports to BH as well. The import of agri-food products from the Western Balkan countries has a continuously increasing tendency. In 2008 it was 3.8 times higher than in 2000. In 2008, imports from Western Balkan countries reached EUR 725.4 million, representing 55 % of total BH import of these products; Croatia contributed 54.7 %, Serbia 39.1 % and FYR Macedonia 3.9 % to this share. EU 15 countries are the second most important group in this respect, contributing EUR 223.4 million or 17 % to total BH agri-food imports. On the other hand, imports from the EU 15 to BH have a decreasing tendency. A significant share of imports also comes from EU 12 countries, among which Slovenia and Hungary are the leading trade partners.

5 AGRICULTURAL POLICY

5.1 Agricultural policy framework

One characteristic specific to BH is the complexity of its state administration, which complicates the implementation of its agricultural policy. This is an important reason, but not the only reason why post-war agricultural policy can be considered as nontransparent and ineffective.

BH is one of the rare countries in the world without a unique state ministry for agriculture. Agricultural policy is implemented on entity levels (Federation of BH and the Republika Srpska), and in part of the Federation of BH it is implemented on cantonal (10) levels as well. Part of municipalities' budgets of both entities that implement some support measures to agricultural producers is also quite relevant. Each entity has its own budget, agricultural policy measures and criteria for providing support. Thus, farmers are faced with different conditions for their activities depending on where they live [2].

Only in 2004, as a part of the Ministry of Foreign Trade and Economic Relations of BH, was a department formed to deal with agricultural policy issues at the state level, which is considered to be the first step toward more efficient coordination. The developmental goal of forming this department should be to one day become a Ministry of Agriculture on the state level [10][5]. At the moment, the Ministry for Foreign Trade and Economic Relations is working on the harmonization of EU and BH agricultural policy. This is still in its initial phase. A number of draft documents (operational plans) have been developed at both state and entity levels to include the BH Strategic Plan for Harmonization of Agriculture, Food and Rural Development, which at this point in the Federation of BH serves as a basis for developing a strategic plan and operational program of the agricultural policy. However, in BH at the moment, strategies of agricultural development are implemented separately in entities, until 2010 in the Federation of BH and until 2015 in the Republika Srpska, without any sign of forming a unique ministry for agriculture.

Current strategies for agricultural development in both BH' entities have defined numerous long-term goals which could be summarized as: (i) increase in agri-food production to ensure permanent food safety; (ii) optimal use of agricultural resources, increase in sectors' productivity and competitiveness; (iii) balanced integrated development (agro-, rural and regional) and strengthening economic protection of market-oriented producers, stopping depopulation of rural areas, and revitalization of hilly-mountainous areas; (iv) stable market for agri-food products; (v) increase of exports and the achievement of higher levels of coverage in foreign trade of agri-food products based on increased productivity, quality and harmonized regulations (for the EU and the WTO); and (vi) institutional strengthening and personnel and technological enabling of agriculture for regional, European, and world integration processes [14,16].

Post-war BH agricultural policy can be divided into two periods, pre- and post-2002. Prior to 2002, this was a policy of predominantly social character, without any specific visions and strategies, providing support to very few agricultural products. After 2002, the measures of agricultural policy were considerably augmented, annual budgets were continuously increased, and direct support to producers gradually encompassed more and more products. Since 2006, a considerable part of budget resources have been directed toward structural and rural development policies.

Agricultural policy in both BH entities is only partly harmonized with EU principles. This refers mostly to direct producer support paid per hectare or livestock head, while other EU principles for such support are not applied. Regarding support to

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[5] Significant efforts was made within the scope of the EU project - Support to Establishment of State Ministry of Agriculture and Rural Development - and in coordination with the Ministry for Foreign Trade and Economic Relations, in establishing a single ministry of agriculture and approximating the local agricultural policy to the common agricultural policy of the EU in general.

rural development, both entities have budgets for this purpose, but the support is distributed on an ad hock basis and not according to any strategy, plan or program.

Until now there has been no integrated overview of the budgetary transfers to the agri-food sector on the state level. The information presented in this paper is a result of data collection from entities' ministries of agriculture and from the department of agriculture of the Brcko District. Both entities and the Brcko District have their own support' review (budgetary groups) and these reviews are not mutually harmonized. Also, for the first time, support for the agricultural sector on the cantonal level (Federation of BH) is included. Apart from the national level, there is remarkable support for the agricultural sector through international projects (IFAD, EU programs, World Bank, different governmental and nongovernmental organizations), but data is not systematically presented anywhere and thus not taken into accout.

5.2 Market and direct producer support measures

5.2.1 Market support measures

The first joint state-level activity related to foreign trade policy (normally the in 1998 when the first BH customs tariffs were adopted, and supporting laws responsibility of the Ministry of Foreign Trade and Economic Relations) took place on foreign-trade policy passed[6]. With this legal solution, a customs protection for agricultural products was provided through four *ad valorem* duty rates amounting to 0 %, 5 %, 10 % and 15 %. At some later stage, as a consequence of the interest pressures, levies for some agricultural products were added to the *ad valorem* charges. However, the role of the levy was lost due to its transformation into fixed amounts as a result of international pressures (WTO and EU)[7].

The a*d valorem* duties and fixed-tariff levies have formed so-called complex duty for agricultural products, thus making them the best protected within the national customs tariff. Yet even duty charges determined in such a manner were still much lower than in neighboring countries and the EU. All this resulted in a bad position for the BH in further negotiations on the liberalization of trade, as they served as a basis for the calculation of agreed-upon reductions.

The next important change in BH foreign trade policy that has had a large impact on the agri-food sector came in 2001, when BH signed a series of bilateral agreements on free trade with the countries in the region. Although the BH public often

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[6] Official Gazette of Bosnia and Herzegovina, No. 1/98, 5/98, 7/98.

[7] Pressures were reflected in a statement that levies are not transparent and are even detrimental for the market, i.e. transformation of such protection into fixed amounts is the practice in other countries in accordance with the "Agreement on Agriculture" reached during the Uruguay round of GATT negotiations [17].

marks the CEFTA[8] as "the main culprit" for the poor quality of local production protection, the bilateral agreements actually had positive impact on local production.

Membership in CEFTA (2007) basically integrated all previous bilateral and multilateral agreements on free trade effective at that time, signed by the countries of the region. This membership provided BH with important trade concessions and discipline (including trade liberalization, the decrease of export subsidies, decrease or abrogation of tariffs or other trade barriers for domestic products, application of internationally-harmonized veterinary regulations, plant health regulations regarding international trade of food and agricultural commodities, etc.). This is completely in accordance with trade agreements with the EU that are an important part of the EU/BH agreement on stabilization and accession. CEFTA is completely compatible with commitments and advantages derived from membership in the WTO for which BH officially applied.

As for relations with the EU, they can be divided in two separate periods. The first period lasted from 2000 to 2007, when BH enjoyed preferential treatment in the export of agricultural products to the EU market. This meant that every year the EU issued a special regulation identifying types, quantities and values of the preferences for import from BH. The sole condition was that BH was to provide appropriate proof of quality and safety of the products. Unfortunately, the BH producers were not able to meet these requirements, so the majority of the export quota established by the EU remained unutilized.

The second period began in 2007, when BH signed the Stabilization and Accession Agreement with the EU. This Agreement (in its section on trade) institutionalizes the rules of trade between BH and EU. Accordingly, BH has been given the possibility of exporting the majority of agricultural products to the EU market without any custom duties or other charges. For a certain (small) number of products, the EU reserved a protection level through customs duties or quotas. On the other hand, BH has committed itself to gradually abolishing the customs duties and other charges for the agricultural products that come from the EU. For some products, the charges were lifted immediately, while for others, this process is phased in and by 2013 BH will have a fully liberal trade partnership with the EU.

The nature of other changes to customs tariffs were more in line with their harmonization with commitments deriving from the adopted international regulations and agreements, therefore they had no significant impact on the protection of local

[8] Central European Free Trade Agreement.

production[9] [17]. The large foreign-trade deficit that BH has in agricultural and food products indicates that the foreign-trade policy has not been properly utilized.

The system of government-fixed (administrative) prices as a measure of market price policy has been the longest-applied measure of agricultural policy. Ever since the introduction of the agricultural policy in BH, the guaranteed (support) prices were stipulated for two products – wheat and rye, while the system of minimum purchase prices from 1996-2002 encompassed as many as 14 products. Later on, this list was shortened, so that during the analyzed period (2000-2008) the guaranteed prices were kept for wheat and rye, while the minimum purchase prices included barley, corn (grain), tobacco and milk.

The total funding aimed at supporting the market in BH is rather symbolic and has been implemented since 2005. Since then this support has varied from EUR 0.9 to 2.8 million; in percentage it constituted only 2-3 % of total budget support to this sector. The major part of this support was aimed at interventions, while a smaller part was directed toward consumers. During the analyzed period, the measure of export support was not in effect.

5.2.2 Direct producer support measures

The agricultural policy measures that support producers represent the most significant kind of budget support to the agricultural sector in BH. The funds allocated for direct producer support have a continuous growing tendency over the observed period (2000-2008), and from EUR 4.5 million in 2000, they reached EUR 50 million in 2008. This support was primarily directed to direct payments to producers, while the amounts directed toward input subsidies were rather modest, and in 2007 and 2008, constituted less than 1 % of this group of agricultural policy measures. This support mainly referred to subsidies on the costs of mineral fertilizers, seeds, and fuel, and it was applied in the Republika Srpska.

Within the structure of direct payments, two groups of measures are dominant: output-based (form of premium) and area/livestock-head-based. Until 2004, practically only direct payments based on outputs were implemented. Since 2005, payments based on land area (number of hectares) and number of livestock have been introduced. These payments have been increasing continuously in both absolute and relative terms, and in 2008 they constituted half of the budget allocations in the group of direct payments to the producers.

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[9] Law on the amendment of customs tariffs from 2004 introduced quotas for the import of beef, pork and chicken. For pork meat the ratio is 2:1 (for 2 kg of non-butchered animals purchased from local producers, 1 kg of imported subject quota is approved), for chicken meat the ratio is 1:3 (for 1 kg of mechanically used chicken meat purchased from local producers, 3 kg of imported subject quota is approved), for beef the ratio is 1:3 (for 1 kg of non-butchered bull calves and cattle purchased from local producers, 3 kg of imported subject quota is approved).

In the post-war agricultural policy of BH, payment based on output was one of the first introduced measures. The funds allocated for this type of support continuously grew, and in 2008 constituted more than one-quarter of the total BH agricultural budget.

The first supported products were milk, wheat and tobacco (Federation of BH, 1996). Since 2002, the list of supported products was significantly extended in both BH entities, though the list was also influenced by the level of approved budget and the amount of pressure coming from producers and various stakeholder groups.

The lack of consistency in both number and type of products supported by output-based payments stands out as a major characteristic of these measures, as considerable variance in both segments was identified[10]. This also indicates that a strategic commitment to the development of agriculture is still lacking, and that agricultural policy still perceives this sector more as a "social shock-absorber", and less as a commercial branch that needs to be based on economic principles. One should also mention the uniqueness of such support that is distinctive in a part of the Federation of BH, where cantonal support is being provided in addition to the entity support, as well as the fact that the support is often provided twice for the same product based on the same criteria (e.g. milk).

A major part of the total support to agriculture in BH relates to the milk producers. This support is many times higher than in any other sub-sector, and is constantly growing. This is one of a very few measures that have positive results, reflected in increased average production per milk cow and reduced trade deficit in milk products. Support to the milk producers is made through dairies and determined by so-called minimum purchase prices and premiums. The minimum price is determined based on number and price of fat units, and its average in both BH entities from 2000-2008 was about 0.25 EUR/liter. The premiums are paid equally to all milk producers regardless of favorability of production conditions, and their amounts are different in each BH entity. In the Federation of BH, from 2002-2008, a milk producer received a premium of 71.6 EUR/ton of milk, while in Republika Srpska in the same period, this premium was somewhat lower and amounted to 51.1 EUR/ton of milk.

The producers of wheat in the Federation of BH received a premium of 30.7 EUR/ton until 2007, while in 2007 and 2008 this support increased to 51.1 EUR/ton. The significance of this crop was also recognized through government-fixed (administrative) prices. Therefore, the guaranteed price of wheat was increased from 0.13 EUR/kg at the time, to 0.18 EUR/kg in 2008. In Republika Srpska, the level

[10] In 2002 in the Federation of BH, a total of 14 products were supported, which decreased to 12 in 2008. Among the products supported in both years there were only milk, mercantile wheat, fresh vegetables and tobacco.

of premium is determined based on realized market price and can reach a maximum 10 % of its amount.

Tobacco is one of a few industrial crops placed among the budget-supported products which have been receiving continuous support throughout the post-war period. In 2000, the total support provided for tobacco represented almost one-fifth of the total payments based on output. In 2007 and 2008, the total allocations for supporting tobacco producers were decreased significantly despite an increased premium from 460 EUR/ton (from 2000-2006) to 614 EUR/ton (in 2007) and 818 EUR/ton (in 2008). This contradiction occurred because domestic tobacco processors import quality tobacco which is, with its maximum custom burden, still cheaper than domestic tobacco. Therefore, despite strong policy support, the total area under tobacco cultivation has been decreasing.

The first forms of payments based on area/animal number were seen in domestic animals for breeding, as early as in 2002. Other products were introduced into such support systems as either a substitute for price compensation measures, or new measures of BH agricultural policy. From 2005 to 2008, direct payments based on sown areas were introduced for the production of seed wheat and potato, as well as oil crops (following the opening of a single oil crop processing plant in BH, Brcko), forage crops, and medical and aromatic herbs[11].

As for livestock production, this form of support was provided for cattle breeding and for beef, pigs, sheep and poultry fattening[12].

For other direct payments to producers, one covered the compensation of damage caused by natural disasters or diseases (contagious animal and plant diseases). The level of such transfers was based on these factors and in 2008 it referred only to the Federation of BH. Half of these payments were executed as damage compensation for euthanized animals suffering from brucellosis, and the rest was

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[11] The levels per 1 ha of sown area in 2008 in the Federation of BH were the following: seed potato EUR 1,278, seed wheat EUR 307, forage crops EUR 77, medicinal and aromatic herbs EUR 153, while in the Republika Srpska in the same year, for 1 ha of sown land, the amounts were: EUR 102 for mercantile soy, sunflower and oil seed rape, EUR 153 for medicinal and aromatic herbs, and EUR 178 for organic production. In animal husbandry, such forms of support, in addition to rearing animals for breeding, was provided for fattening young bulls and heifers, pigs, sheep and poultry [13].

[12] In one part of the Federation of BH, a significant increase of support relative to the previous period was noted in 2008. Hence, for fattening one cattle head a producer was paid EUR 153 instead of the previous EUR 90; for one pig EUR 28 instead of the previous EUR 18; for rearing a heifer for breeding, EUR 205 instead of the previous EUR 153; and for rearing breeding sows, EUR 51 instead of the previous EUR 31. Payments for the producers rearing animals by the cow-calf system have been introduced since 2008, and amount to EUR 205 per cattle head. In addition, direct payments to producers based on number of animals are also made for breeding sheep and goats (EUR 3 per head), breeding of pullets, and beekeeping (EUR 5/beehive) [13].

dispersed as aid to producers affected by natural disasters (hail, floods and drought), which reduced expected yields considerably.

5.3 Structural and rural development measures

Although structural measures in agro-economic theory and practice are most commonly related to restructuring and modernization of the sector, in the case of BH, and particularly the Federation of BH, due to war activities from the period 1992-1995 the goals and objectives of this policy are more adequately defined as the rehabilitation of a devastated agricultural sector. Namely, according to UNDP's estimations [14], in one part of the Federation alone, damages inflicted in the agricultural sector amount to approximately USD 3 billion.

Thus, structural policy measures deserve special attention and stronger actions by the creators and implementers of local agricultural policy. And yet, it did not happen for two conspicuous reasons: first, a chronic lack of budget resources for this purpose; and second, a significant presence of the international community which, through various programs and projects implemented by a large number of governmental and non-governmental organizations, substituted for local policy and played a key role in rehabilitating the sector. With this assistance, assessed at more than EUR 400 million (mainly grants), the sector was renewed to a considerable extent, but the major downside of this support is reflected in the predominantly social character of the assistance, i.e., a lack of emphasis on commercial farms and economic principles, as well as a lack of coordination among the implementing agents and frequent duplications.

Until 2006, the rural development policy in BH was mainly limited to increases in food production competitiveness, and allocations for its implementation were rather low, never exceeding EUR 10 million. Only since 2007, when the allocations were doubled, did the establishment and implementation of the rural development measures begin. In addition to an increase of food production competitiveness, these measures include the improvement of the environment and quality of life in rural areas. Still, strengthening the competitiveness of the food and agriculture sector remains a primary goal. The budget transfers for this part of agricultural policy have a continuous trend of growth, and were increased from 2 % of the total agricultural budget in 2001, to one-quarter of the budget support to the sector in 2008.

As stated above, the major part of budget support to rural development is being spent on improving competitiveness. A major part of this was referred to the investments in farms, i.e. support of their modernization. Thus, in 2007 and 2008, this support, on average, was approximately 80 % of the total support provided to this axis of the rural development policy. The implementation of this support was labeled as capital investment in both BH entities. As a consequence of having separate rural policies in BH entities, it became obvious that the approach to supporting the

investments in farms varies a great deal, both in terms of amounts and types of measures [4].

In 2007 and 2008, the amounts provided for the implementation of this group of measures in the Federation of BH doubled and encompassed a much larger number of individual support measures. Among the measures supporting investments on farms, investments in orchards and vineyards, the procurement of machinery, the procurement of basic herd, investment in greenhouse production, investments in irrigation systems, and investments in the construction of storage facilities should be highlighted. Another important measure was aimed at subsidizing interest rates for investment credits[13]. In the Federation of BH, such support was only able to be obtained by registered agricultural producers (farmers). The funds for other groups of rural development measures were considerably smaller and were aimed at modernizing the processing industry, supporting farmers through training and other related activities, as well as the cultivation of land.

Budgetary support for environmental and countryside improvement practically does not exist. According to the available information, until 2008 there were no funds for this support in the Republika Srpska, whereas in the Federation of BH in 2007 and 2008, very modest support went to payments to farmers in less favored areas, but there were no explanations of selection criteria. Data on support for improving the environment should certainly pose a worry for local creators of rural development policy, since they significantly distance BH from the EU. According to the regulation on rural development (Regulation EC, 1698/2005), this is a very important measure in the EU, which requires a minimum allocation of 25 % of the total budget earmarked for rural development. In 2008, this support in BH constituted only 2 % of the budget transfers for rural development policy.

Support related to quality of life in rural areas and diversification of the rural economy, like that previously mentioned, is rather small and had an insignificant share of total support to rural development until 2008, when it amounted to 15.6 %. This is a concerning fact given the current issues in BH related to rural poverty and the surplus of labor in rural communities. A major part of this moderate support was earmarked for developing rural infrastructure, and a smaller portion was to support diversification of the rural economy. Support to local capacity-building is also moderate and mainly aimed at preparing studies and strategies for rural development. The LEADER programs have not yet commenced, although there were some attempts to establish some local action groups.

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[13] Subsidization of interest rates ranged from 1 to 4%, depending on previously-set credit requirements (maximum interest rate up to 10%). This support amounted to EUR 2.1 million in 2007, or 15% of the total support for farm investments, and in 2008 it was somewhat lower and amounted EUR 1.7 million, or 10% of total support to farm investments.

5.4 General measures related to agriculture

Support to general services in agriculture has a trend of continuous increase from 2000-2008, and contributed 4.7 % (2000) to 7.7 % (2008) of total budget transfers. The major part of this support was aimed at the follow-up and control of animal and plant diseases (especially in the Republika Srpska), development of scientific and research projects, operation of extension and advisory services (the Republika Srpska), as well as co-funding international projects (IFAD, WB, EU). This type of support varies from year-to-year and shows certain inconsistencies.

The support to general services in agriculture comes not only from entity and cantonal ministries of agriculture, forestry and water management, but from other ministries as well, particularly the Ministry of Education. A significant part of the activities carried out within the scope of this group of measures are funded through a number of international governmental and non-governmental organizations, such as the projects implemented by USAID, SIDA, GTZ, MPDL, Cooperazione Italiana, DEZA and Caritas.

5.5 Overall budgetary outlays on agri-food policy

Budgetary support to the agricultural sector in BH during the analyzed 2000-2008 period shows a steady upward trend. Approximately EUR 7 million of budget transfers in 2000 were increased by more than twelve times by 2008, reaching a level of EUR 86.1 million. The largest portion of budgetary support in BH is related to the implementation of market and direct producer support measures. Such support has a continuous upward trend and was increased by over eleven times in 2008 (EUR 53.8 million) relative to the year 2000 (EUR 4.5 million). Allocations for direct producer support make up the majority of budgetary transfers and have a steady upward trend.

Although direct budgetary transfers to producers have shown a constant increasing trend over the observed period, two periods can be noticed. The first is related to the period 2000-2006, when allocations were rather modest and where most of the support was related to payments to producers based on outputs. The other period is 2007-2008. During that period, allocations became significantly higher[14] and the structure of direct payments to producers was changed in favor of payments based on area/livestock number[15]. Those were positive changes in BH agricultural policy, as these payments presented the first step in farmers' adaptation to the support that will be introduced in the scope of harmonizing with the EU CAP support model. The amounts directed toward input subsidies are very moderate, and in

[14] Domestic analysts explain this with increased budgetary incomes due to VAT introduction (2006) and stronger lobbying on agri-food sector importance.

[15] In 2008, for the first time payments based on area/livestock (EUR 25.0 million) were higher than output-based payments (EUR 24.8 million).

2007 and 2008, with an average of EUR 0.3 million, constitute less than 1 % of this group of agricultural policy measures.

Table 3-5: Budgetary support to agriculture (in EUR million), 2000-2008, Bosnia and Herzegovina

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Market and direct producer support measures	**4.5**	**9.6**	**8.9**	**10.9**	**17.8**	**23.2**	**32.4**	**44.6**	**53.8**
Market support measures	0.0	0.0	0.0	0.0	0.0	1.2	0.9	1.8	2.8
Export subsidies	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Market intervention	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*1.0*	*0.7*	*1.5*	*2.2*
Other	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.2*	*0.2*	*0.3*	*0.6*
Direct producer support measures	4.5	9.6	8.9	10.9	17.8	21.9	31.4	42.5	50.1
Direct payments to producers	*4.4*	*8.8*	*7.9*	*10.1*	*16.7*	*21.8*	*28.5*	*42.2*	*49.8*
Based on output (price aids)	4.0	8.6	7.1	9.8	15.3	14.6	20.4	24.5	24.8
Based on current area/animal	0.4	0.2	0.8	0.3	1.3	7.2	8.1	17.7	25.0
Input subsidies	*0.1*	*0.8*	*1.0*	*0.8*	*1.1*	*0.1*	*3.0*	*0.3*	*0.3*
Structural and rural development measures	**0.0**	**0.3**	**1.2**	**2.0**	**4.2**	**7.0**	**9.8**	**19.8**	**23.8**
Improving the competitiveness of the agricultural sector	0.0	0.3	1.2	2.0	2.7	7.0	9.6	15.7	19.6
Improving the environment and the countryside	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.5
Supporting rural economy and population	0.0	0.0	0.0	0.0	1.5	0.0	0.1	3.4	3.7
General measures related to agriculture	**0.4**	**1.1**	**1.1**	**1.7**	**1.9**	**2.7**	**3.5**	**4.7**	**7.4**
Miscellaneous measures	**2.1**	**3.2**	**4.1**	**4.1**	**0.9**	**0.2**	**0.7**	**0.8**	**1.1**
Total budgetary support to agriculture	**7.0**	**14.2**	**15.4**	**18.6**	**24.7**	**33.1**	**46.4**	**69.9**	**86.1**

Note: Own assessment based on publicly available data and internal documents of Federal Ministry of Agriculture, Water Management and Forestry, Ministry of Agriculture, Water Management and Forestry of the Republika Srpska and Cantonal ministries (departments) for agriculture of Federation of BH and Department of agriculture of District Brcko Government (compiled in APM database).

Total allocations related to the market support measures in BH are rather symbolic and have been implemented since 2005. Until 2008, this type of support made up as little as 1.9 % (2006) to 3.2 % (2008) of the total budgetary support to the sector. The majority of this support was directed to interventions, and the remainder to consumer support.

Until 2006, the rural development policy in BH was mainly limited to improving competitiveness, and allocations for their implementation were rather low, never exceeding EUR 10 million. Practically, only since 2007 have other measures of rural

development been established and implemented. Yet, competitiveness improvement remains the predominant measure (80 %). Budgetary transfers aimed at supporting rural development have a continuous increasing trend, and were increased from EUR 0.3 million, (2 % of total agro-budget in 2001) to EUR 25 million (28 % of the budgetary support to the sector) in 2008.

Support for general services in agriculture is relatively modest and in total budgetary transfers contributes 4.7 % (2000) to 7.7 % (2008). The structure of this group of agricultural policy measures is constituted of support to the monitoring and control of animal and plant diseases, development of scientific and research projects, operation of extension and advisory services, as well as co-funding international projects. A significant part of activities being carried out within the scope of this group of measures is funded through a number of projects implemented by governmental and nongovernmental organizations.

Different entity agrarian policies are also reflected in the various relevance of certain groups of measures.

Until 2007, total outlays aimed at supporting the agricultural sector were considerably higher in Republika Srpska than in the Federation of BH, with differences varying from EUR 0.7 (2000) and 6.9 (2006) million. In 2008, for the first time the budgetary support to agriculture was equal in both entities[16]. Generally, it can be stated that the sector receives far more attention in Republika Srpska than in the Federation of BH, given the percentage of allocations of the total entity budgets [2, 3]. Hence, in Republika Srpska in 2008, support to the sector made up 5.7 % of the total budget, whereas in the Federation of BH (without cantonal budgets), in the same year these outlays made up 3.4 % of the total budget.

In the structure of budgetary transfers earmarked for market and direct producer support measures, a significantly larger part of support was given in the Federation of BH till 2003, and since then has been larger in Republika Srpska. In 2008, for the first time the budgetary support for this group of measures was equal in both entities, amounting to EUR 26 million.

[16] Support for the agricultural sector in the Federation's budget implies budgetary transfers from both entity and cantonal levels.

Table 3-6: Budgetary support to agriculture by Entities (in EUR million), 2000-2008, Bosnia and Herzegovina

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Market and direct producer support measures									
Federation of BH	2.9	5.0	4.5	5.2	8.0	8.8	14.4	17.4	25.6
Republika Srpska	1.6	4.1	4.0	5.3	9.2	11.8	15.4	24.9	26.0
Structural and rural development measures									
Federation of BH	0.0	0.0	0.9	0.6	1.5	2.3	2.9	11.2	14.6
Republika Srpska	0.0	0.0	0.0	1.0	2.6	3.9	6.8	8.4	9.1
General and other measures									
Federation of BH	0.3	0.1	0.1	0.5	0.4	0.8	1.1	2.2	2.3
Republika Srpska	2.2	4.2	5.1	5.3	2.4	2.0	3.1	3.4	6.1
Total budgetary support to agriculture									
Federation of BH	3.2	5.1	5.5	6.3	9.9	12.0	18.4	30.8	42.5
Republika Srpska	3.8	8.3	9.1	11.6	14.2	17.7	25.3	36.7	41.2

Note: Own assessment based on publicly available data and internal documents of Federal Ministry of Agriculture, Water Management and Forestry, Ministry of Agriculture, Water Management and Forestry of the Republika Srpska and Cantonal ministries (departments) for agriculture of Federation of BH (compiled in APM database).

When it comes to support for rural development, this segment of agricultural policy is of greater importance in the Federation of BH than in Republika Srpska, since the outlays in 2007 and 2008 were significantly higher. In 2007, support for rural development in the Federation of BH was 34 % higher than in Republika Srpska, and in 2008 this difference was even more distinct (60 %).

All of the abovementioned facts lead to the conclusion that BH agricultural policy is nonexistent. It is actually an aggregate of policies at the entity and cantonal levels, which have practically no coordination whatsoever. Such policy is unstable and very much dependent on political orientation, committed to serve the objectives of "higher interests" rather than strategic ones [12]. The incomparability of policy is not a problem *per se*, but it reflects populism, as well as a lack of strategy and vision in politics. BH has considerable resources in agriculture which are not utilized. A stronger essential turn in politics and administration towards European integration processes could provide more political attention and enable quicker development in agriculture. A clear formulation of a vision and better understanding of the processes on the parts of politicians and administrators should be the first step.

6 SUMMARY AND CONCLUSIONS

The 2000-2008 period in BH was characterized by numerous reforms resulting in economic and social development. This period was characterized by constant economic growth, with an average annual GDP increase of 5 %. Unemployment is still the greatest economic and social problem and is one of the main reasons

why BH is among the poorest countries in Southeast Europe. Certain progress in the reform process was facilitated by signing the SAA with the EU (June, 2008).

Agricultural farms in BH are still small and fragmented, which causes low productivity and efficiency. Small and divided land properties, poor technical equipment on farms, old production technologies, the low use of inputs, symbolical use of irrigation systems, and the continued dominant presence of extensive and natural production are just some factors that lead to low agricultural production. The level of agricultural yields in BH places the country at the bottom of the European scale.

Differences between BH and EU standards and legislation, a recovering and developing food industry, weak support to domestic production, a low level of market-oriented production for bringing about the critical mass necessary for export, as well as problems with quality and high expenditures of collection, are just some of the reasons that cause the extremely unfavourable trade balance of BH agri-food products. Slow structural reforms in agriculture, and not enough attention to direct foreign investments that could bring in fresh capital, technologies, products and markets, also contribute to this situation.

Although BH made some important steps towards EU integration, it is still at an early stage of approximation with the EU *acquis communautaire* in agriculture and rural development, food safety, veterinary and phytosanitary policy. Preparations are proceeding slowly.

Budgetary support for the agricultural sector in BH from 2000-2008 shows a steady upward trend. Moderate budget transfers of EUR 7 million in 2000 increased by more than twelve times in 2008, reaching a level of EUR 86.1 million. However, even with such positive trends in understanding the significance of the agricultural sector within the overall national (entity) economy, this level is still far away from EU practice. The comparison of budget transfers in BH, candidate countries and potential candidate countries to the EU with the EU 27 itself confirms that "BH, with 13 Euro per capita, 22 Euro per ha of agricultural land, 31 Euro per ha of equivalent arable land, and 6 % of gross value added in agricultural sector, has far lower support to the sector than the EU 27, whose allocations by respective criteria are seven to fifteen times larger" [12]. Yet only Croatia receives a considerably higher level of support in the region.

Both formal and essential implementation of the accession process to the agricultural policy in BH are still at initial levels. Agricultural policies greatly differ, both by level of funds and structure of measures. Therefore, its implementation is far away from the model in EU. Legal harmonization is at the initial stage, and the institutional capacities of a modern state are still being built. The core problem lays in the fact that some institutions, such as the state-level Ministry of Agriculture, which is the only institution capable of managing the process of approximation in an efficient and coordinated manner, are still nonexistent. Deficits in institutional structure, as well as in human resources management, are the result of poor motivation

and turbulent politics over the past twenty years, which inevitably affect the development of the country. BH agricultural policy actually does not exist; it is an aggregate of policies at the entity and cantonal levels, which practically have no coordination whatsoever. Such a policy is unstable and very much dependent on political orientation, committed to serve the objectives of "higher interests" rather than strategic ones. Incomparability of policy is not a problem *per se*, but it reflects populism and lack of strategy and vision in politics.

Previous enlargements offer an opportunity to draw some conclusions that might be applicable to BH. Regardless of the fact that the CAP is being heavily criticized, any country aspiring to membership in the EU has to fit in the mechanisms of the CAP [11]. Therefore, a gradual and rational introduction, with all its rights and responsibilities, has to be the key principal of the processes in the field of agriculture (which in general has to be given a significant role). Although the CAP serves as a moving target, accession to the EU by 2020 would improve the situation in rural areas and significantly influence both the development and modernization of BH agriculture.

The European integration processes which include BH require approximation and refinement of rural policy. The key policy in terms of concept, even in terms of the post-accession fund levels, will surely be the policy of rural development [4, 12]. Therefore, Bosnia and Herzegovina, like all other countries aspiring to EU membership, will have to fully adopt EU regulations, and when it comes to the implementation of this policy, it is necessary to be well-prepared and avoid, by all means, the introduction of measures which will have to be abolished after accession.

Strengthening agricultural policy is an important, though not the sole, element of successful preparation for EU accession. The success of such a process first and foremost depends on restructuring and modernizing agriculture to include agribusiness. Only a competitive chain of food production can contribute to sustainable development and successful accession. This is not the task and responsibility only of the state, but of the entire sector as well. Economic and academic institutions also have their share of responsibility. Changes in policy need to be well-programmed. At this point in time, BH has neither a strategy nor program documents at the state level that would support the European integration path and approximation of agricultural policy. Without this, the approximation cannot begin in practice. Partial steps, such as defining the agency for payments required for the implementation of the pre-accession IPARD policy, though significant, are not sufficient. Even in planning these measures there is a certain deficit in terms of defining the main institutional functioning of BH as a state in the field of agriculture. Because of this, it is time to first strategically define institutions at the national and entity levels, and then proceed with a multi-year planning of measures in the sense of making adjustments required by EU accession, as well as strengthening local agriculture during the pre-accession period.

The accession process strengthens both the significance and role of analytic support and infrastructure. BH possesses the potential, but is still relatively underdeveloped in this area due to small investments into the development of science and agricultural education in general. The institutions themselves should put forth greater effort as well. The priority areas are as follows: (i) harmonized statistics, which enable the process to be monitored; (ii) upgrade of national capacities in terms of monitoring budget transfers, prices, and building of economic account for agriculture; (iii) development of sector modelling for the evaluation of policy change effects and decision-making support.

The prospect of EU membership provides a basis for political and economic stabilization and development, as well as the necessary modernization of state administration [12]. The agro-economy in BH has realistic market chances thanks to its potential. Therefore, it is necessary to engage all local intellectual and political capacities, as well as donors' programs and projects in harmonizing the system of values, legal system, politics and institutions. Certainly, as a first step it is necessary to resolve the institutional problem of BH as a state. Partial steps, based on current relations between power and knowledge, could be detrimental rather than beneficial. Citizens of BH, of all nationalities and both entities deserve that BH, just like all other countries in the region, speeds up and steps up its pace on the path toward European integration. If BH fails to stay within the circle of ex-Yugoslav republics progressing toward the EU, this would cause huge political, economic and social damage.

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CHAPTER 4

REVIEW OF AGRICULTURE AND AGRICULTURAL POLICY IN CROATIA

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1 INTRODUCTION

The Republic of Croatia is an Adriatic and Central European country. Its total surface covers 87,609 km^2, of which the land area comprises 55,960 km^2, and the territorial sea 31,067 km^2. Croatia is situated on the southwestern edge of Central Europe between Austria, Italy, Slovenia and Hungary to the northwest, and Bosnia and Herzegovina and Serbia and Montenegro to the southeast. With a total population of 4,437,460 (Census 2001), Croatia has an average population density of 78 inhabitants/km^2. The population density is the greatest in the northwestern region of Croatia and the lowest in the mountainous region (Lika, Gorski Kotar). There are three larger cities where 25 % of the total population is situated (Zagreb 779,145; Split 188,694; and Rijeka 144,043 inhabitants). The main ethnic group is comprised of Croats (3,977,171), with minorities such as Serbs (201,631), Bosniacs (20,755), Italians (19,636), Hungarians (16,595) and Albanians (15,082).

From a demographic point of view, Croatia can be characterized as a low birth-rate country, with a slowing rate of population growth. The declining population growth rate reflects a steady decrease in the birth-rate and a slightly rising mortality rate. According to Vidović [10], Croatia's migration balance has been positive in the past ten years, but flows have been politically motivated to some extent, since most inflows and outflows are related to the return of people after the war. In 2007 there

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were 14,622 immigrants and 9,002 emigrants. Due to the emerging shortages in some sectors and/or skills, labor migration to Croatia has been growing in recent years. The largest share of Croatian labor migrants are in Europe (Germany, Austria, Italy in particular). Most migrant workers originate from the successor states of the former Yugoslavia, the bulk coming from Bosnia and Herzegovina.

Croatia is characterized by different climates, natural resources and economic heterogeneity: in the northern, continental part of the country a continental climate prevails, with sharply defined seasons. The region is characterized by arable land and developed farming and livestock production. It is the most inhabited area and, from the point of view of agricultural production potential, the richest part of Croatia.

Central Croatia is an area with a typically mountainous climate, heavy precipitation, and poor rural infrastructure, where small family farms and livestock production dominate. The natural resources of this region are forests, nature preserves, deposits of clay, and the great variety of flora and fauna. The main economic activities of the region are forestry and agriculture, the wood processing and tourism (particularly the Plitvice Lakes).

The coastal and island areas of Croatia, from Istria in the northwest to Konavle in the southeast, have a sunny and warm climate. A large percentage of the regional gross domestic product (GDP) is achieved by the tourism sector, which is the basic economic activity in the coastal districts. This is followed by the commerce sector, traffic and telecommunications, construction and financial services and agriculture. The most prevalent forms of agriculture are private farms with small production plots.

Croatia declared its independence from Yugoslavia on June 25, 1991. During the first years of transition, Croatia experienced one of the most severe output declines among the Central and East European countries. This was caused, among other things, by the Croatian war of independence, the disruption of transport links and the loss of the Yugoslav market.

The death of President Tudjman in December 1999, followed by the election of a coalition government and President in the early 2000s, brought significant changes to Croatia. The government progressed in implementing the Dayton Peace Accords, regional cooperation, refugee returns, national reconciliation, and democratization. The government's priorities included Croatian membership in the European Union (EU) and NATO. Croatia applied for EU membership in 2003, and began entry negotiations in October 2005, together with the screening process. Croatia joined NATO in April 2009.

In the context of state building and modernization, Croatia has accepted the concept of a multiparty political system and market economy, the Bologna Process regarding the educational system, modern technology and computers, highway development, modernizing business processes by improving the efficiency, trade liberalization

and other modernization concepts as a candidate country in the accession process (law adjustments, institution building, etc.).

Croatia's main general challenges are the political tensions caused by open questions with Slovenia over territory. There are also open political questions between Croatia and Serbia and Croatia and Bosnia and Herzegovina which have been unresolved since the war of 1991.

In the transition process, followed by Croatian war of independence production capacities were devastated and a great part of the rural surface is still contaminated with land mines. Other transitional problems are unfinished privatization of ex-social agricultural conglomerates, unresolved questions of ownership, usage of present state property, etc. [5].

2 MACROECONOMIC ENVIRONMENT

According to World Bank analyses [11] from 1994-1997, Croatia's GDP growth averaged 6.4 %, a good start for the beginning of economic transition. Output declined substantially in 1998 and 1999. However, since 2000, Croatia has experienced a period of high and sustained expansion in economic activity, with real GDP growing by an average of 4.4 %. The main driver of economic expansion in Croatia from 2001-2008 was domestic demand, which grew at more than 6 % per year.

Significant economic growth can be seen also in the stabilization of the main macroeconomic indicators. An inflation rate of 1.8 % in 2003 was the lowest for all transitional countries, although it is showing a growing tendency, with a significant 6.1 % in the last observed year. In 2008, Croatian inflation was pushed up substantially by the rise in food prices and energy, as occurred in many countries in the region. Surging prices for food and imported energy were coupled with strong domestic demand. The share of food and non-alcoholic beverages comprises, on average, 31-33 % of a household's expenditures.

Table 4-1: Selected macroeconomic indicators (in %), 2000-2008, Croatia

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Change in real GDP	3.0	3.8	5.4	5.0	4.2	4.2	4.7	5.5	2.4
Inflation rate (annual average)	4.6	3.8	1.7	1.8	2.1	3.3	3.2	2.9	6.1
Unemployment rate	16.1	15.8	14.8	14.3	13.8	12.7	11.2	15.1	14.3

Source: CENTRAL BUREAU OF STATISTICS [1].

The overall boosting of the Croatian economy contributed to the stabilization of the labor market, although the registered unemployment rate still remains high (14.2 % on average from 2000-2008).

Gains derived from Croatia's well-advanced economic transition and the EU agenda have pushed economic activity upwards in the past few years, though room remains for improvement. Croatia still has a long way to go to catch up with other

EU member countries. Closing the income gap and facilitating convergence with other EU countries is, and has been for some years, an overriding priority for Croatia. The challenge is that it needs to do so in the significantly changed global environment that has emerged in the past decade.

The world recession also affected Croatia. The real decrease of GDP by 6.7 % from 2008 to 2009 is the largest drop since 1993.

3 SITUATION OF THE AGRICULTURAL SECTOR

3.1 Importance of agriculture in the economy

The agriculture, forestry and fishery sector plays important economic role in Croatia. The Gross Value Added of agricultural production according to the National Classification of Economic Activities increased by 22 % from 2000 (EUR 1,670.2 million) to 2006 (EUR 2,147.3 million), yet its share in total GDP decreased from 7.0 % to 5.4 %, and since then it has more or less remained flat. In 2003, a decrease in its share of total GDP (5.7 %) was due to the consequences of a long-lasting drought. In the next three years there was a raise in total production, as well as a decrease of share in total GDP, thus showing that the whole economy is moving forward much faster than agriculture.

Table 4-2: Share of agriculture in the economy (in %), 2000-2008, Croatia

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Share of agriculture[1] in GDP (current prices)	7.0	7.0	6.9	5.7	6.1	5.6	5.4	5.2	5.6
Share of agriculture[1] in total employment (ILO definition)	:	:	:	:	:	16.9	14.0	12.8	13.2
Share of agri-food exports[2] in total goods' exports	9.2	9.5	10.8	11.4	8.7	10.1	11.2	10.6	9.9
Share of agri-food imports[2] in total goods' imports	8.7	9.3	9.4	8.9	8.9	8.8	8.7	8.3	8.5

Source: CENTRAL BUREAU OF STATISTICS [1], CROATIAN CHAMBRE OF ECONOMY [3].

Notes: [1] Agriculture together with forestry and fishery.
[2] Agri-food trade according to Combine Nomenclature of Custom Tariffs (CNCT).

The share of employed persons in agriculture, fishery and forestry in the total employment from 2005 to 2008 was 14.2 %, on average[1]. Employment rates are decreasing.

[1] Until 2005, data included farmers who were registered with the Croatian Pension Insurance Institute and were not comparable with those according to the Labour Force Survey, which is carried out in compliance with methodological rules and guidelines of the International Labour Organisation (ILO), adopted at the 13th Conference of Labour Statisticians and European Statistical Office (EUROSTAT).

Croatia has been a net importer of agricultural and food products since 1994. The picture of economic relations has changed significantly in the last several years due to numerous signed free trade agreements. As a result of such liberalization, the value of exported Croatian agricultural products constantly rises until 2008, but slower than import. The share of agriculture in exports and imports oscillates from 2000-2008. Agriculture's greatest share in exports was experienced in 2003 and in imports in 2002.

3.2 Natural conditions and land use

The surface area of Croatia is divided into three major natural and geographic regions.

The Pannonian and peri-Pannonian region is situated on the south of the Carpathian Mountains and encompasses approximately 47 % of the country's total area and 64 % of the total Croatian population. This region is the most inhabited and, from the point of view of agricultural production potential, the richest part of Croatia. It is an area with a continental climate and sharply defined seasons. The soil, climate and favorable yearly circulation of precipitation give this area good natural potential for efficient agricultural production. Large parts of this region are covered with forests and provide a favorable basis for the development of forestry and a strong timber industry. The production capacities of the primary sector of agriculture make large parts of the Pannonian region the major Croatian granary, and good results are being obtained in the wine-growing and wine-making industry. The most important economic activity is food production, based on a developed system of agricultural and livestock production.

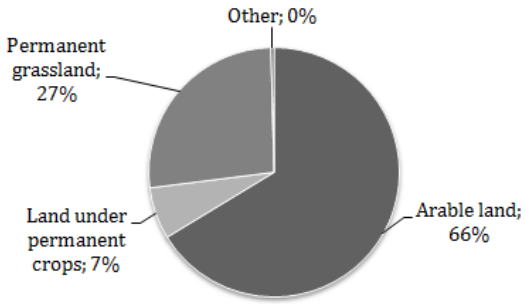
The Mountainous region includes quite heterogeneous areas, which begin with the shallow (covered) karst of the Karlovac hinterland and continue with the mountainous peaks of Mala and Velika Kapela, Gorski Kotar and Velebit. The climate is typically mountainous, with heavy precipitation that can amount to an annual 2,500-3,500 mm. The greater part of the precipitation is snow, which is also typical for a region with so short of a vegetation period. The soil is heterogeneous, developed on high silicate rocks or on lime or dolomite. Agriculture is adjusted to the climatic conditions and small-scale private farms prevail, with cattle breeding being the main activity. The number of arable crops in this region is small because of the climatic conditions, and the most prevalent are: corn (early ripening), potato, rye and vegetables. Agricultural production is traditionally extensive, and few chemicals and mineral fertilizers have been used (potentially a good precondition for organic plant and animal production in combination with eco-tourism). The main economic activities of the region are forestry and agriculture, wood processing and tourism.

The Mediterranean region includes the coastal and island areas of Croatia from Istria in the northwest to Konavle in the southeast. From the northwest to the

southeast there is a regular rise in annual temperature and a fall in the amount of precipitation. The climate is sunny and warm; temperatures rarely fall below zero, which is good for the growing of high-quality Mediterranean crops such as olives, figs, etc. The geographical location makes the region a specific, complex natural environment in which there are island, mountain and coastal regions. It is recognizable for its long coastline and islands, attractive beaches and great diversity of flora and fauna.

Croatia with its favorable agro-climatic conditions enables diverse agricultural production. In a relatively narrow agricultural area, due to diverse climatic conditions, relief and soil, a large number of agricultural crops, starting from wheat and industrial crops to wine grapes and Mediterranean fruits and vegetables, are successfully cultivated [7]. Of the total land area (5,596,000 ha), utilized agricultural area covers 1,289,091 (2008), i.e. 23 % of the total. Arable land covers 66 % of total agricultural land, 27 % is permanent grassland, and 7 % is land under permanent crop cultivation.

Figure 4-1: Agricultural land use, 2008, Croatia



Source: CENTRAL BUREAU OF STATISTICS [1].

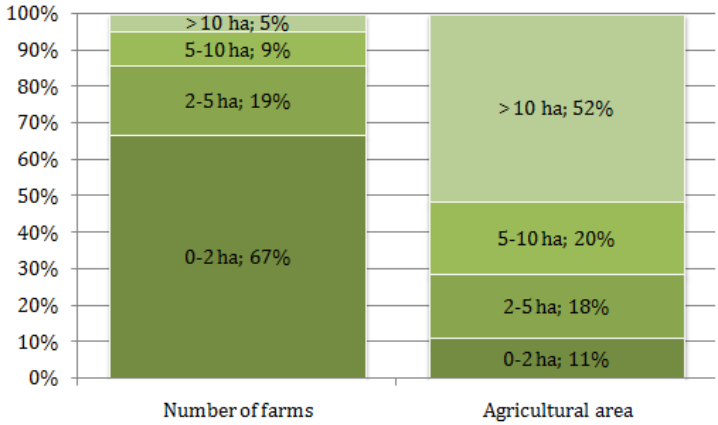
3.3 Farm structure

Data on farm structure are available only from the Central Bureau of Statistics publication, Agricultural Census, 2003, which presents data on: land resources and uses; area used for orchards and vineyards; number of fruit trees and grapevines; irrigation; fertilization; the use of plant protection chemicals; agricultural machines and facilities; livestock; agricultural labor force; other gainful activities in agricultural households; the sale of agricultural products; and adjustments to organic agricultural production and environmental protection aspects.

The Agricultural Census, 2003 was the first independent and complete census on agriculture since 1960. In 1969, the Census on agriculture was carried out with the sampling method, while in 1971, 1981, 1991 and 2001 information on agricultural

property was collected by Census of Population, Households, Dwellings and Agricultural Farms.

Figure 4-2: Distribution of farm numbers and area farmed by size classes, 2003, Croatia



Source: CENTRAL BUREAU OF STATISTICS [1].

Family farms are the predominant portion of the agricultural structure regarding human, land and other resources, and they account for the majority of total agricultural production. The main causes of inefficient agricultural production are small land areas, dislocation and a far too fragmented structure of agricultural estates, especially when it comes to family farms. The average area of used agricultural land in the case of family farms is only 1.9 ha. According to MÖLLERS et al. [9] small, family-owned agricultural holdings hold approximately 80 % of the agricultural resources (land, animals, etc.), not many of them are sustainable and market-oriented, and therefore not competitive.

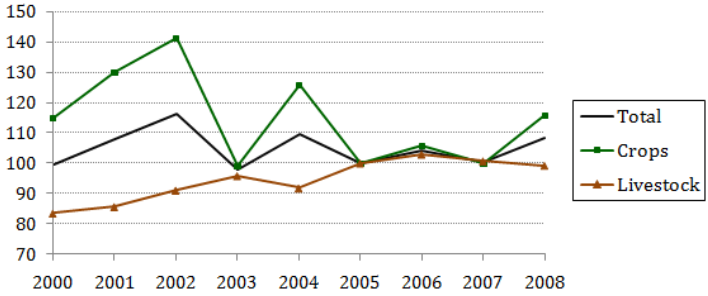
The fragmentation can mainly be ascribed to lax inheritance laws that do not contain restrictions for splitting up farms between heirs, even if they become unviable. Many family farms are therefore no longer competitive or economically viable in either the medium- or long-term perspective.

There are 1,364 agricultural holdings which posses 159.2 ha of agricultural land, on average. A significant difference between family farms and agricultural companies/legal entities, in terms of average size and degree of fragmentation, lies in the fact that a majority of the latter (mainly ex-agrocombinates) used land that was consolidated through land consolidation schemes. When observing both family farms and agricultural holdings, the average size of used agricultural area in Croatia is 2.4 ha.

3.4 Agricultural production and output

Transition towards a market economy and the war of independence resulted in a drop of agricultural production, especially until 1997, when crop production again reached the pre-war (1990) level, while livestock production stabilized at around 80 %. However, agricultural production in general still shows a high degree of uncertainty and variation [6]. The decline of crop production output in 2003 was the result of a long-lasting drought, which affected large parts of the country.

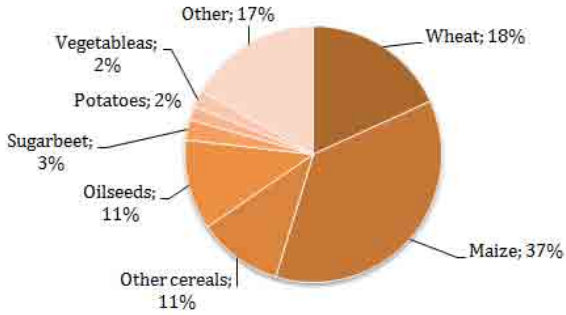
Figure 4-3: Agricultural production volume indices, 2000-2008 (2005=100), Croatia



Source: CENTRAL BUREAU OF STATISTICS [1].

Crop production's large share indicates its relative importance in total agricultural production (55.5 % on average from 2000-2007) in terms of land use, food and fodder production. Grains and oil-crops represent the main cultivations in Croatia. Regarding grain production, the dominant crops are maize (about 37 % of total arable land) and wheat (about 18 %), while the production of rye, barley and oats occupies a significantly smaller area. Croatia as a whole has very good conditions for grain production (soil fertility, climate benefits and tradition).

Figure 4-4: Breakdown of harvested area by main crops, 2008, Croatia



Source: CENTRAL BUREAU OF STATISTICS [1].

Areas covered with oilseeds in the last five years have made up approximately 98,000 ha (11 % of total arable land) on average, the most abundant being soybean until 2008, when sunflower became the main oil seed.

In the last decade, sugar beet production has became one of the most important, with a trend of land expansion primarily due to improved market conditions and the realistic needs of the processing industry. Sugar beet is grown on 3 % or 22,000 ha, of total arable land in 2008.

Vegetables are produced on 2 % of total arable land, as are potatoes. The most important vegetables grown on open fields in Croatia are cabbage, onion, tomato and pepper. Fragmented production, selling directly to consumers through local green markets and own consumption all prevent accurate statistics of vegetable production and marketing from being compiled.

Croatia is rare among European countries in that almost every type of fruit, from subtropical citrus fruit and olives, to drupes and soft fruit may be produced. According to statistical data, land under fruit plantations occupied approximately 50,900 ha in 2008. Apples, plums, peaches, pears, sour cherries, walnuts, as well as olives and mandarins (Mediterranean fruits) are major crops. Problems arose as the ex-Yugoslavian priority towards fruit and vegetable production was directed outside Croatia (Macedonia, Serbia). These problems were later compounded by the shortage of more stimulating agricultural policy measures, the lack of organization on the market, etc., which all caused greater Croatian imports of significant quantities of all types of fruit.

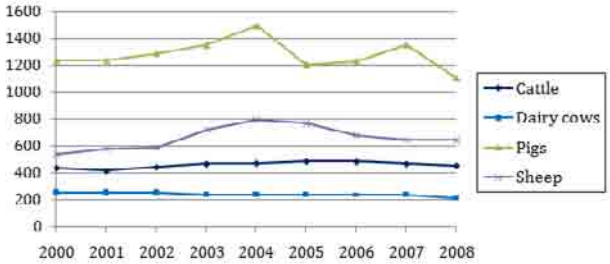
In 2008, Croatia had 33,741 ha of vineyards, or 2.6 % of utilized agricultural land. The grape-growing areas are located in inland and coastal parts of Croatia, with the most important grape varieties being G*raševina* (Welsch Riesling), *Malvazija Istria* (Istrian malvasia) and *Plavac mali*. Grape production in 2008 amounted to 185,300 tons. Vineyards operating on fragmented land parcels are typical for Croatian viticulture. Most of the vineyards are owned by family farms, with an average vineyard size of less than 1 ha.

Livestock production, which contributes 45.4 % of the agricultural production value in Croatia, is a particularly important branch of agriculture in which many producers are involved. The process of transition to a market economy, changes in the structure of agriculture, liberalization of the domestic market and war, with all its consequences, have strongly influenced Croatian agriculture, particularly livestock production. These conditions do not favor compliance with hygiene, animal welfare or environmental standards.

Beef production (breeding), together with milk, combine to makes up the most important livestock production in total agriculture in terms of value of output, while pig production is the most important in terms of number of animals. In the

structure of cattle categories, the most represented animals are cows and heifers at 55 %, which contributes to milk production and an increase of the cattle stock.

Figure 4-5: Number of main livestock categories (in 1,000), 2000-2008, Croatia



Source: CENTRAL BUREAU OF STATISTICS [1].

Fluctuations in pig production can be noticed due to the well-known characteristic of pig cycles in production, as well as periodic imbalances between the supply and demand of pork on the market.

In comparison to other types of livestock production, poultry production is largely industrial, and very large production units prevail. Production also exists to a smaller extent – within family farms – where production is carried out in an extensive way and mainly for a farm's own consumption. Hens and turkeys are dominant, while the share of other poultry (ducks, geese and others) is of lower importance.

Even if egg production today is organized on a highly technical, industrial level, there exists a great need for production to fully conform to ecological and animal welfare standards, including an increase of production competitiveness.

Overall, yields of Croatian crops are below the European average. The rather high consumption of fertilizers (about 340 kg/ha of utilized agricultural area) and pesticides on the one hand, and quite low yields on the other hand, indicate inappropriate management practices.

Table 4-3: Average wheat and milk yields, 2000-2008, Croatia

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Common wheat (t/ha)	4.7	4.4	4.6	3.2	4.9	4.1	4.6	4.6	5.5
Cow's milk (kg/cow)	2,374	2,575	2,705	2,790	2,869	3,301	3,603	3,640	3,878

Source: CENTRAL BUREAU OF STATISTICS [1].

Over the last decade yields of cow's milk have been increasing but are still significantly lower than in the EU. It is relevant to stress that the structure of milk purchases by dairy plants is changing in the sense that the share of producers who supply small quantities of milk is decreasing, while the share of those who supply larger quantities is increasing. Milk production is growing because of the better management on farms and better herd genetic basis which is a result of genetic construction, i.e. by implementing of own breeding program [6].

3.5 Prices and economic situation

Agricultural producer price indices show significant oscillations during the observed period. In 2007 and 2008, a significant growth of prices in plant production is notable.

Table 4-4: Agricultural producer price indices, 2005-2009 (2005=100), Croatia

	Nominal indices					Indices in real terms (deflated)[1]				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
Total agricultural output	100.0	100.4	111.6	111.7	103.4	100.0	97.3	105.1	99.1	:
Crop output	100.0	104.8	129.0	121.0	107.5	100.0	101.6	121.5	107.4	:
Livestock output	100.0	96.1	94.7	102.6	99.4	100.0	93.1	89.2	91.1	:

Source: CENTRAL BUREAU OF STATISTICS [1].

Note: [1] Calculated from nominal indices using inflation as a deflator.

The greatest growth of prices for a majority of cereals was recorded in 2007. The price of corn maize was the greatest in 2007, i.e., it was 122.6 % higher than in 2005. A similar situation took place in sunflower production, where the price in 2007 exhibited the highest increase compared to 2005 and the last observed year, 2009. Compared to 2005, the price of soft wheat increased by 66.4 % in 2008. Sugar beet showed an oscillation, but the price from 2005-2009 remained between 32-35 EUR/t.

In 2008, the prices of observed fruits and vegetables mostly increased. The tomato price continued to rise in 2009, while prices for cabbage, apples, pears and mandarins decreased in 2009. The price of mandarins was the highest in 2005 and prices of cabbage, apples and pears were the greatest in 2008.

Table 4-5: Producer prices of certain agricultural products (in EUR/t), 2005-2009, Croatia

	2005	2006	2007	2008	2009
Soft wheat	126.5	115.8	144.1	210.5	114.4
Corn maize	89.9	101.1	200.1	96.5	91.8
Sunflower	179.9	187.9	379.3	315.2	214.0
Sugar beet	34.0	33.7	32.0	32.8	34.9
Main crop potatoes	154.7	190.5	188.3	200.8	168.9
Tomatoes	527.8	635.4	570.3	651.0	686.6
Cabbage	171.0	201.4	147.3	206.4	196.2
Dessert apples	352.8	304.8	334.2	404.4	332.4
Dessert pears	416.6	500.7	620.7	720.2	626.7
Mandarins	628.2	325.2	362.9	408.6	401.9
Young cattle (live weight)	1,888.7	1,725.2	1,735.3	1,933.5	1,914.2
Pigs (live weight)	1,430.1	1,336.1	1,191.0	1,326.9	1,407.4
Suckling lambs (up to 2 months, live weight)	4,032.6	4,715.6	4,562.1	4,774.2	4,498.6
Fattening lambs (2 months-1 year, live weight)	2,780.2	2,932.0	2,948.2	3,127.4	3,234.3
Chickens (broilers, live weight)	1,088.2	1,081.6	1.004.1	1,045.7	995.9
Fresh eggs (1,000 pieces)	90.9	85.7	90.0	101.1	89.9
Cow's milk	270.1	265.5	276.8	330.8	277.8

Source: CENTRAL BUREAU OF STATISTICS [1].

Prices in the livestock sector oscillate depending on the product. The prices of young cattle and suckling lambs were the highest in 2008, while the price of pigs peaked in 2005 (1,430.1 EUR/t) and the price of fattening lambs were the highest in 2009. Cow's milk prices were the lowest in 2006 (265.5 EUR/t) and the highest in 2008 (330.8 EUR/t).

Croatian Economic Accounts in Agriculture (EAA) were calculated and published for the first time on 18 December, 2009 for the period 2005-2008[2].

In the period 2005-2008, Gross Agricultural Output (GAO) at current prices was increasing. The agricultural labor input in the period 2005-2008 decreased by 12 %. The value of the output of the agricultural industry at current prices in 2008 amounted to EUR 3,069.8 million, which represents an increase of 12 % compared to the previous year, and 27 % to 2005.

The Gross Value Added (GVA) in 2008 is estimated to be EUR 1,200.8 million. Compared to the previous year, the GVA increased by 25 %, and compared to 2006 it increased by 57 %. Agricultural labor input in Annual Work Units (AWU) constantly decreased from 2005-2008.

Table 4-6: Agricultural income (in EUR million, at current prices), 2005-2008, Croatia

	2005	2006	2007	2008
GAO at basic farm gate prices	2,408.7	2,513.9	2,729.9	3,069.8
Consumption of inputs	1,632.2	1,746.7	1,766.4	1,869.0
GVA at basic farm gate prices	776.5	767.2	963.4	1,200.8
Fixed capital consumption	280.5	293.7	346.9	392.9
NVA at basic farm gate prices	496.1	473.5	616.5	807.9
Other subsidies on production less other taxis on production	21.3	25.4	32.7	42.9
Factor income	517.2	498.9	647.5	850.8
Agricultural labor (1,000 AWU)	291.0	280.0	270.0	255.0
Factor income/AWU (EUR)	1,777	1,782	2,398	3,337

Source: CENTRAL BUREAU OF STATISTICS [1].

Some data on input prices are available from the Market Information System in Agriculture and EAA database. The prices of most observed goods used in agricultural production showed the greatest increase in 2008. The prices of energy and lubricants constantly increased during the observed period (2005-2008), while fertilizer prices also constantly increased and attained their highest prices in 2009.

The prices of all animal foodstuffs were the highest in 2008, with the exception of complementary feed for rearing calves, which attained its highest price in 2008.

[2] Within the component "Value-based agricultural statistics" implemented in the National Phare 2005 Program.

In the context of seed and seedlings, maize attained the highest price in 2007. Winter wheat, sunflower, potatoes and olives attained their highest price in 2008, while the price of grapevine-vine sorts was highest in 2007. Apples and mandarin seedlings attained their highest price in the last observed year (2009).

Table 4-7: Prices of some goods consumed in agricultural production (in EUR/t), 2005-2009, Croatia

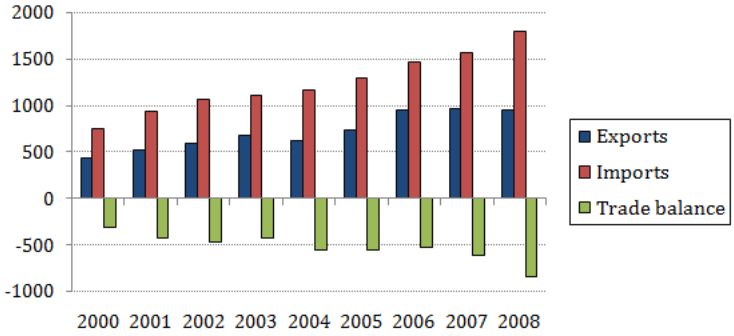
	2005	2006	2007	2008	2009
Energy and lubricants:					
Electricity (kwh)	0.08	0.08	0.08	0.09	:
Residual fuel oil (1,000 l)	449.1	466.7	459.7	552.6	:
Motor spirit (1,000 l)	1,732.7	1,870.7	2,117.3	2,245.1	:
Fertilizers:					
Ammonium nitrate (26% N)	169.6	182.3	189.6	216.1	220.7
Urea	194.0	215.0	223.7	278.4	284.7
Animal foodstuff:					
Barley	123.5	118.4	176.0	217.5	104.9
Oats	120.8	112.9	140.5	202.2	130.8
Dried lucerne	99.1	99.3	101.0	119.1	111.7
Cereal straw	24.4	34.0	30.0	33.2	39.5
Complementary feed for rearing calves	270.0	285.7	296.0	378.1	309.3
Complementary feed for dairy cattle at grass	211.7	223.1	238.7	295.0	215.3
Complementary feed for dairy cattle (stall-fed)	228.0	240.8	259.2	329.6	288.8
Protein-rich complementary feed for dairy cattle (stall-fed)	321.6	333.3	341.1	477.8	389.6
Complementary feed for cattle fattening	192.7	206.8	219.6	286.7	200.3
Protein-rich complementary feed for cattle fattening	253.7	262.6	287.9	346.3	284.7
Complete feed for rearing pigs	407.1	318.4	347.9	423.8	381.5
Complete feed for sows	237.4	238.1	282.4	346.3	280.7
Complete feed for fattening pigs	226.6	225.9	233.3	303.3	213.9
Baby chick feed	317.5	311.6	339.7	433.5	373.3
Complete feed for rearing pullets	263.2	254.4	296.0	354.6	298.4
Complete feed for battery laying hens	234.7	238.1	264.7	325.5	287.5
Seeds and seedlings					
Maize (1,000 p.)	41,053	45,199	45,323	43,191	40,272
Winter wheat	237.4	261.2	252.4	317.2	302.5
Sunflower (1,000 p.)	55,730	55,850	54,870	66,777	65,685
Potato	656.7	669.4	709.4	819.9	630.8
Apple (1,000 p.)	1,510.2	1,594.6	1,476.1	1,692.5	2,042.2
Mandarins (1,000 p.)	3,032.6	3,065.3	3,002.7	2,972.3	3,682.6
Olive (1,000 p.)	3,423.3	4,632.7	4,414.7	5,170.4	3,253.4
Grapevine-vine sort (1,000 p.)	963.4	949.7	1,015.0	1,009.7	867.8

Source: CENTRAL BUREAU OF STATISTICS [1].

4 AGRICULTURAL TRADE

Since 1994, Croatia has been a net importer of agricultural products. During the observed period (2000-2008), the growth of agri-food imports can be noticed, as can negative growth in the agri-food trade balance.

Figure 4-6: Agri-food trade (in EUR million), 2000-2008, Croatia

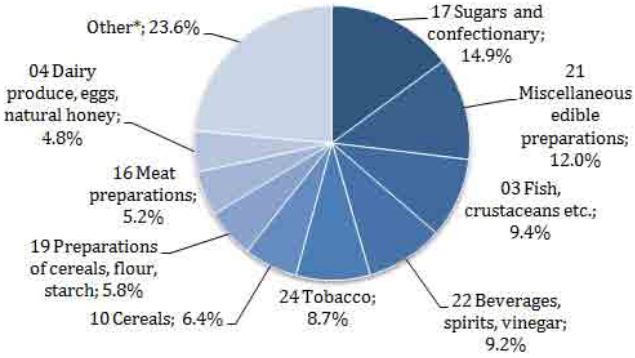


Source: CROATIAN CHAMBRE OF ECONOMY [3].

Note: Agri-food trade according to Combine Nomenclature of Custom Tariffs (CNCT).

The greatest share of exports by main commodity group from 2007-2008 belongs to sugars and confectionary, miscellaneous edible preparations, fish, crustaceans etc., beverages, spirits, vinegar, tobacco, cereals, preparations of cereals, flour, starch, meat preparations and dairy produce, eggs, natural honey .

Figure 4-7: Composition of agri-food exports by main commodity group, average 2007-2008, Croatia

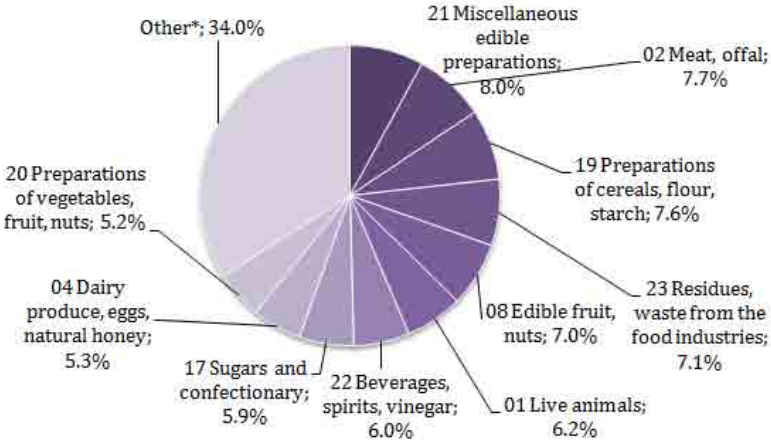


Source: CROATIAN CHAMBRE OF ECONOMY [3].

Notes: Other* – Groups of products with a share below 4.5 % each of the total.
Agri-food trade according to Combine Nomenclature of Custom Tariffs (CNCT).

The greatest share of imports from 2007-2008 belongs to miscellaneous edible preparations, meat, offal, preparations of cereals, flour, starch, residues, edible fruit, nuts, live animals, beverages, spirits, vinegar, sugars and confectionary, dairy produce, eggs, natural honey, preparations of vegetables, fruit, nuts, and waste from the food industries.

Figure 4-8: Composition of agri-food imports by main commodity group, average 2007-2008, Croatia



Source: CROATIAN CHAMBRE OF ECONOMY [3].

Notes: Other * – Groups of products with a share below 4.5 % each of the total.
Agri-food trade according to Combine Nomenclature of Custom Tariffs (CNCT).

The trade exchange of milk and milk products takes place in both exports and imports. Croatia is still a country that has to import milk and milk products to satisfy the needs of its inhabitants.

Because of pig shortages, the import of live pigs and pork considerably increased in 2000 and 2005. Insignificant quantities of pigs and pork are exported from Croatia.

As Croatia has for many years not produced beef in quantities sufficient for its own consumption needs, it must import beef and calves for fattening. Therefore, the trade balance of this sector is negative. Beef and calves for fattening are most represented in the import structure, and last year a significant growth in beef imports occurred. The export of live cattle and beef is not significant, but Croatia exports a considerable amount of preserved beef products, where the trade balance is positive.

Home processed vegetables cannot compete with cheaper imported products. In the last 10 years, edible vegetable imports to Croatia significantly increased in value, and exports stagnated until 2005 before again increasing.

Croatia's most important export destinations are the countries of the former Yugoslavia, especially Bosnia and Herzegovina, followed by EU Member States, and Japan (tuna exports since 1997).

The main Croatian import partners are EU countries, especially Germany, Italy, Hungary and Austria, according to regional breakdown data from 2005-2008. Greater imports from those countries causes a negative trade balance, which increases every year as Croatian export to those countries is significantly lower.

Croatia has a positive trade balance with only former Yugoslavian countries such as Slovenia (2007 and 2008), Bosnia and Herzegovina, Serbia and Montenegro. In 2008 there was a negative trade balance with FYR Macedonia.

5 AGRICULTURAL POLICY

5.1 Agricultural policy framework

At the beginning of the 1990s, most of the agricultural policy measures were taken from ex-Yugoslavian legislation with very general objectives: economic growth and progress provided by the supply of high quality food offered at acceptable prices, and the export of products with comparative advantage; concentration of family farms to a level which provides an adequate standard of living; providing necessary funds through credit, benefits in input procurement, implementation of new technologies and information through advisory services; increasing investments in agriculture; protection from foreign competition; converting the ownership and management structure; and development of market infrastructure and adaptation of institutional framework in accordance with market trends.

During the 1990s, agricultural protection was based on a price protection system: farm gate prices were supported by a combination of guarateed prices, farm payments by product quantity and input compensations.

Croatian reform of agricultural policy began in 1998 in accordance with trade policy reform in the framework of World Trade Organization (WTO) demands, and was not officially adopted until 1999 by the Act on Support and Refunds in Agriculture and Fishery[3]. According to that act, payments per area were introduced; direct price subsidies for plant production and all subsidies for inputs were abolished.

[3] Official Gazette, no 29/99 and 105/99, http://www.nn.hr.

In 2001 The Agriculture Act[4] set out the objectives of agricultural policy as follows: food security for the population, which is settled mostly by domestic, competitive products; promotion of effective production and marketing in agriculture for the purpose of higher competitiveness on domestic and world markets; providing appropriate living standards and contributing to the stability of agricultural income; providing consumers access to an appropriate and stable food supply in accordance with their demands, especially concerning price, food quality and food safety; preservation of natural resources through the promotion of sustainability, in particular for organic agriculture and conservation and the improvement of rural areas and values.

Regarding domestic support in agriculture, in 2002 the new Act on State Support in Agriculture, Fishery and Forestry was adopted and came into enforcement in 2003[5]. The precondition for its implementation was introducing the Register of Agricultural Holdings as the administrative basis for managing agricultural finances. The intention was to make the support system in agriculture more simple and transparent, with actual harmonization of support for sown areas.

In addition to the production incentives model (price aid, coupled area payments in crop production and per head in livestock production), three new models of support were introduced: income support, capital investment and rural development. This reform was supposed to gradually adjust agricultural policies with the policy that is or should be implemented in the EU. The aim was to re-allocate funds in favor of these new models, with partial decreases of production support. This act distinguishes commercial and non-commercial agricultural farms. Commercial farms fulfill the conditions of models through direct payments and support to capital investment and rural development schemes, while non-commercial farms fulfill the conditions of models through income support schemes and rural development schemes.

The aid system is strictly related to the creation of the Register of Agricultural Holdings, which is the central statistical database for agricultural holdings. The creation of this register, which includes all farms that sell their products on the market and which lodge requests for aid to agriculture, lays the foundation for the introduction of various measures for different kinds of users. The following step is a further development and harmonization of the register with the Integrated Administration and Control System (IACS), which is the control system related to direct payments for agriculture in the EU and which the EU member states apply in managing the Common Agricultural Policy (CAP).

Special agencies of the Croatian government (Croatian Bank for Reconstruction and Development – CBRD, Croatian Agency for Small Business – CASB) allocate aid to the economy in general, including agriculture, under special programs in

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4 Official Gazette, no 66/01, http://www.nn.hr.

5 Official Gazette, no 87/02, http://www.nn.hr.

accordance with several horizontal regulations (Investment Support Act, Act on State Support for Small Entrepreneurship, Islands Act, Act on Areas of Special State Concern, Act on Mountainous Areas, Regional Development Fund Act). The government undertakes crediting infrastructure and economic projects, as well as the issuance of guarantees. There are also specific programs adopted by the Croatian government (beef, pigs, permanent crops, vegetables) that are implemented by CBRD and CASB. These programs consist of financing investments through loans with interest rates lower than commercial rates.

At the end of July 2009, the Act on State Support in Agriculture and Rural Development was adopted[6]. The main intention of this Act (2009-2010) is to harmonize domestic legislation in the area of agricultural policy with CAP. The act defines three main groups of measures in accordance with the EU model: (i) measures for improving agricultural competitiveness; (ii) measures for environmental protection; and (iii) measures for improving the quality of life in rural areas, and farm diversification. Horizontal mechanisms for the future implementation of direct payments in the EU, such as cross-compliance, consultation of farmers, the establishment of an integrated administrative and control system in direct payments management, etc., are also important.

Croatia took over the area of food safety from the EU, and its legal framework was established by adopting the Food Act, which serves as the basis for insurance of a high level of protection of human health and consumer interest, as well as for efficient market operation. Still, food safety is one of the greatest challenges in the agricultural sector, as many standards, laboratories, and certifications still have to be incorporated. Regarding the harmonization of enterprises with EU community standards, 9 enterprises acquired ISO in 2005, 6 adopted HACCP[7], and 4 are preparing for HACCP.

All aid to agriculture stemming from measures of national policy is financed from the state budget, which is adopted each year by the Croatian parliament. The state budget determines revenues and expenditures by budget users and particular activities (aid programs). General information on the state budget is available through the Ministry of Finance.

In 2003 and 2004, the Ministry of Agriculture, Forestry and Water Management (i.e., the current Ministry of Agriculture Fishery and Rural Development – MAFRD) published yearly reports with data on agricultural production and budgetary transfers in agriculture. However, the items were not systematic and detailed. After 2004, systematic data is hardly available. Also missing is an annually compiled presentation for each item of budgetary funds at the national, regional or community levels.

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[6] Official Gazette, no 149/09, http://www.nn.hr.

[7] Hazard Analyses Critical Control Points.

5.2 Market and direct producer support measures

5.2.1 Market support measures

At the beginning of the 1990s, most of the foreign trade regulation measures were also taken from ex-Yugoslavian legislation, particularly for import measures such as custom duties, import quotas and variable fees.

Croatia began to implement agreements on free trade in the second half of the 1990s, but greater liberalization of agricultural trade started after Croatia joined the WTO at the end of 2000. Through the Protocol of the Accession of Croatia to the WTO, Croatia became obliged to gradually decrease custom taxes for agricultural and food products during the transition period, which ended in 2007. According to the mentioned Protocol, Croatia has no right to apply export subsidies. There are also defined preferential trade conditions with WTO member countries. Croatia does not apply import/export permissions as a model for tracking imports and exports. Issuing import licenses is limited to import situations in the framework of preferential quotas, and is regulated by MAFRD.

In the case of disturbance on the domestic market, the Croatian government can intervene by lowering or increasing existing customs, but only in the framework of international agreements.

After accession, intensive negotiation processes with Croatia's main trading partners were continued in the framework of bilateral or multilateral agreements on free trade to provide more favorable placement of Croatian agricultural products to foreign markets.

In October 2001 Croatia signed a Stabilization and Association Agreement (SAA) with the EU. The trade provisions of the SAA are asymmetrically in favor of Croatia. This means that the EU has granted Croatia unlimited duty-free access to the market of the enlarged EU for virtually all products. The only exceptions are young beef, fisheries, wine products and sugar (since 1 January 2007), for which tariff quotas remain. On the Croatian side, tariffs for industrial products were phased out by 2007. Also, tariffs for agricultural products have been reduced, but remain for a number of sensitive products (e.g. live animals, processed fruit and vegetables, flowers, cereals and flour, fruit juices, fresh and frozen meat, cured products, fresh milk and milk products, tobacco and cigarettes, mineral water, chocolate, cookies and ice-cream).

Domestic market measures were defined by the Agriculture Act of 2001, and included: interventions on the domestic market (intervention buying-in and selling, withdrawal from the domestic market, support for storage); support measures for selling and consumption (i.e., the promotion of purchase and improvement of quality, support to product preparation for the market, support for consumption); and balance measures related to supply (production quotas). From 2000-2008, only

the cereals market was officially regulated by market organization[8]. Data on funds in the context of domestic market support measures are not available.

In December 2009 the Act on Market of Agricultural Products Regulation[9] was adopted, which includes all measures of market regulation except direct payments in the following sectors: cereals, sugar, hops, olive oil, fruits and vegetables, poultry meat, eggs, wine, live plants and flowers, beef, pork, sheep and goat meat, and milk and diary products. The act prescribes measures for market regulations as follows: market interventions; market standards; recognition of producer and sector organizations, and groups and measures which are implemented during trade with other countries (e.g. export, import licenses, tariff quotas, and export quotas for sugar) and special measures for the agricultural sector.

According to the abovementioned act, market interventions are implemented in the context of: public interventions (interventional buying-in of cereals, beef, milk and diary products); private storage support (olive oil, beef, ewes, goat meat and pork, milk and diary products produced in Croatia); special intervention measures (due to possible diseases or serious market distortions); adjustment of supply to market demands; production limitations (for milk and sugar); and special aid systems (milk and diary products, olive oil, hops, fruit and vegetables, wine and beekeeping).

5.2.2 Direct producer support measures

In 1990 the government handed down many decisions on the price protection of certain agricultural products (sunflower, soybean, maize, wheat and sugar beet), as well as directives on fertilizer price control. Then in 1991 the government established the Act on Premium for Certain Products in Agriculture and Reimbursement for Bank Interests for Agricultural Products of Priority Purpose in Agriculture[10] (milk, soybeans, sunflowers, oilseed, sugar beet, tobacco, olives, wool, ewe breeding, hemp, flax, breeding stock and selected queen bees). At the time, premiums and reimbursements occupied the greatest share of the agricultural budget (88-99 %). Input subsidies were abolished in 1992 and again introduced in 1994.

In 1999 the new system stimulated plant production by payments per area and a lump sum for new plantations of permanent crops. The livestock sector was stimulated by selective payments per head with an increased amount of funds in less favored areas.

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[8] In the cereals sector, the occasional interventional buy at minimum quality and price calculations related to quality are prescribed. Minimum quality standards are linked to three factors: hectoliter mass, ingredients and humidity [6].

[9] Official Gazette, no 149/09, http://www.nn.hr.

[10] Official Gazette, no 27/91, http://www.nn.hr.

In 2002 the new Act on State Support in Agriculture, Fishery and Forestry[11] was adopted and became enforceable in 2003. The production subsidy scheme covers direct aid that is linked to production and aimed at improving the income of commercial farms (family farms, cooperative farms, small businesses or companies). The scheme encourages arable crops, permanent crops and livestock farming. Registration in the Register of Agricultural Holdings and compliance with the minimum quantities provided by the above Act are the basic conditions to be fulfilled to obtain aid [4].

When examining certain production types, cereals and oil crops had the highest share of direct payments. The milk and dairy cows sector had the highest growth. Continuous growth is also exhibited by the fruit, viticulture and olive sectors in the last two years. An increased amount of paid subsidies through a production subsidy scheme in the mentioned sectors can be explained by the Government agricultural policy, whose objective is the development of these sectors (according to Agriculture Law 2001 and 2009).

The Act on State Support in Agriculture and Rural Development 2009 changes the previous structure of incentives, i.e. it introduces basic flat rate payments for meadows and pastures and other types of agricultural land utilization (arable land, orchards, vineyards, olive groves), where farmers receive the same amount of subsidy per ha no matter the type of production. Those types of payments are partially harmonized with the EU's Single Farm Payment Scheme, but the Act itself is valid only in 2009 and 2010.

Production related payments per area – i.e., direct payments or coupled payments (vineyards, orchards, olive groves, seed plantations, sugar beet, vegetables, medicinal plants, strawberries and hops) are only transitional payments and depending on negotiation results, there is a possibility of their retention even after Croatian accession. Production related payments in livestock production for suckler cows, sheep and goats are also transitional payments which could still be implemented after accession.

In the framework of this Act, the additional payments envisaged for less favored areas have increased by 35 % in viticulture, fruit growing and partially in livestock farming. Aid to organic production is part of the production subsidy scheme. As a rule, subsidies for organic production are about 30 % higher than the same subsidies in conventional production.

During 2003 the program for support to agricultural farms was adopted based on the Regulation on the Realization of the Right to Aid to Insurance against Possible Damages in Agriculture, Fishery and Forestry[12]. This Regulation prescribes the

[11] Official Gazette, no 87/02, http://www.nn.hr.
[12] Official Gazette, no 47/03, http://www.nn.hr.

amount of aid, as well as the manner and conditions for the realization of the right to aid. Requests for the previous year are lodged within the prescribed period (1 to 31 January). The farms lodge their requests to the local state administration office in their respective counties or in the City of Zagreb, where they are processed and the appropriate amount of aid per farm is established.

According to information from MAFRD, a new act on support is being prepared, which brings us to the conclusion that Croatian agricultural policy is rapidly adapting to CAP requirements. From 2002-2009, Croatia exhibited a relatively gradual harmonization with the CAP, and since 2009 one act has been in force while other is being prepared.

5.3 Structural and rural development measures

The capital investment scheme, established in 2003, is a structural measure that is designed to improve relations between farmers and banks, and is aimed at increasing the productivity and competitiveness of commercial farms. The MAFRD awards investment grants to farmers to whom a commercial bank has granted a commercial loan for agricultural investments. This model is one of the pillars of Croatian agricultural policy reform, which aims at developing the commercial private agricultural sector.

Strategic development programs of the Croatian Government and MAFRD began in 2004, and aim at increasing competitiveness and the volume of domestic production, particularly for weak production sectors such as fruit processing, vegetables, grapes, meat and milk. The priorities of such programs are: restructuring agricultural production and the cultivation of permanent plantations, and the development of the livestock production sector and irrigation. Thus, the Croatian government has adopted a series of operative programs which contain and define measures for the improvement of the mentioned sectors: for the development of livestock production; for the cultivation of permanent plantations; for the development of pig breeding; for production support for *kulen*; for the development of vegetable growing; and for the development of industrial wood processing.

The income support scheme was established in 2003 and was intended for small and non-commercial family farms to initiate structural changes and redistribute agricultural land in favor of sustainable market-oriented agricultural farms, as well as to create a favorable environment for agricultural land transactions. The goal of this scheme is to encourage smaller farms with mainly older inhabitants to gradually exit agriculture. Qualified farmers are given the possibility of receiving a lump sum payment instead of production aid (direct payments), which separates such payments from production. After a farmer has chosen the income support scheme, he receives the status of non-commercial agricultural farm, which is irreversible and may not be subsequently modified to a commercial farm status. Therefore, as opposed to commercial farms, non-commercial agricultural farms may not receive

aid within the production subsidy scheme or capital investments scheme. However, aside from benefits from the income support scheme, these farms may be eligible to aid within the rural development scheme. The beneficiary receives EUR 683 annually per farm as a lump sum.

The objective of the rural development scheme is the maintenance and development of rural areas, and particularly traditional features of Croatian agriculture. This scheme comprises three programs: (i) development of rural areas; (ii) preservation of autochthon and protected breeds; and (iii) marketing preparation of agricultural products and foodstuffs.

The fundamental objective of the program for the development of rural areas is the sustainable development of rural areas by ensuring adequate working and living conditions and the preservation of natural and cultural heritage. Measures for the development of rural areas encompass aid for: investments into farms; processing of agricultural products; establishment of machinery rings; young farmers; education; retraining and training; environmental protection measures in agricultural and forestry areas; renewal of fire affected forests and agricultural areas; land improvement measures; reconstruction and development of the countryside; presservation of cultural property; rural customs and their manifestations; various agricultural and other activities aimed at realizing additional or alternative sources of income; improvement of rural infrastructure connected with the development of agriculture; promotion of wine roads and other tourist routes; promotion of quality autochthonous product development of services in rural areas.

Regarding rural development and agricultural competitiveness issues, at the beginning of 2006, the European Commission (EC) adopted the Agriculture and Rural Development Plan for the period 2005-2006 as a framework for financing rural development measures under the SAPARD[13] program. Two measures for improving the competitiveness of the sector were stipulated: (i) investment in agricultural holdings, and (ii) investment in the processing and marketing of agricultural and fishery products. There were 4 public tenders and 37 applications were approved and paid from SAPARD funds in the amount of EUR 16.1 million.

In 2007 the Agriculture and Rural Development Plan 2007-2013 was prepared within IPARD[14], as the basis for utilizing the pre-accession funds. The program was adopted by the EC in February 2008. The first public tender was advertised at the end of 2009, and 37 applications were received.

The reason for such a small number of applications lies in the fact that Croatian farmers are mostly not creditworthy, and there are often complications with gathering ownership documents, financing consultants and investment projects, as well as

[13] Special Accession Program for Agriculture and Rural Development.
[14] Instrument for Pre-accession Assistance, component V – Rural Development.

poor information dissemination, a lack of workshops and seminars on the subject of pre-accession programs, etc. An additional reason for the low absorption of SAPARD was also an overlapping with national measures that had lower criteria and a milder control system compared to the EU programs.

According to the Act on Support 2009, a set of measures was enacted for the improvement of agricultural sector competitiveness, preservation and improvement of the environment and landscape, as well as for improving the quality of life in rural areas and the diversification of rural activities. This Act also defines the sustainable development of agriculture (integrated production, good agricultural practices, additional activities, research in agriculture, cooperation with experts and scientific institutions), as well as establishes public and private advisory services.

The objective of the program for marketing and preparing agricultural food products, which began in 2001, is to contribute to the competitiveness of the agricultural sector by subsidizing the sale of agricultural-food products, especially in the tourist market, by means of various marketing activities. The program is conducted through tenders and its beneficiaries are scientific and professional institutions, consulting companies, cooperatives, producer associations and local and regional units of self-government, such as counties, municipalities and cities. The program is funded from the state budget and other sources (for example: resources of the project holder, family farms, local and regional units of self-government, etc.). Chosen projects must deal with at least one of the required issues – market research, improvement of the quality of products, preparation for the market of original Croatian products and promotional activities.

5.4 General measures related to agriculture

Until 2002 aid for associations was organized through the Government Office for Cooperation with NGOs, along with other activities designed to strengthen the civil sector. Following a government decision in 2002, the competent ministries within their field of activity have ensured funds for aid to associations. The objective is to award financial aid to associations for their projects and programs.

Financial aid for construction, adaptation and equipping of facilities for practical work in agricultural secondary schools has been awarded pursuant to a decision of the Minister of Agriculture, Forestry and Water Management. The objective of this aid is to improve the quality of teaching, improve the conditions for training students, as well as using these groups to educate agricultural producers.

Every year MAFRD opens a tender to collect offers for awarding sponsorship and aid from the Ministry for holding fairs, exhibitions, seminars, round tables, scientific gatherings, congresses and anniversaries to promote domestic products, connect producers and improve agricultural production through the transfer of knowledge. Those participating in the tenders are both citizens and legal entities with their seat or

residence in Croatia that organize fairs, exhibitions, seminars, round tables, scientific gatherings, congresses and anniversaries in the area of agricultural, food, forestry and hunting.

The Croatian Agricultural Extension Institute (CAEI) was established through Government regulation in 1997 as an institute specialized in agricultural advisory public service. The CAEI is financed through state funds, and all service to its clients, primarily family holdings, are free of charge. According to CAEI [2] during the period 2002-2007 budget for CAEI was constantly increasing from EUR 0.63 million in 2002, to EUR 4.82 million in 2007.

Scientific research, as well as technical and development projects concerning the needs of villages and agriculture is financed through several sources: the Ministry of Science and Technology, MAFRD through the Council for Research in Agriculture, and the Ministry of the Economy, Labor and Entrepreneurship. From 2002-2007, the budget for research in agriculture, forestry, fishery and hunting fluctuated, but overall it increased from EUR 0.4 million in 2002 to EUR 1.3 million in 2004, and to EUR 1.8 million in 2007 [8]. Analyses show [6] that the evaluation process for research projects is in most cases too long and not very transparent. The obligation of commercializing applied research in agriculture is poorly enforced, which makes impact assessment very difficult, while the investments do not pay.

5.5 Overall budgetary outlays on agri-food policy

According to available data, no appropriate conclusion regarding budgetary spending on the agricultural sector can be made. The publicly available documents and internal data from MAFRD do not provide a complete picture of annual budget spending for the observed period of 2001-2007 by each agricultural policy measure. Thus, data were collected from MAFRD internal documents or publicly available brochures, and some data were not available at all, which complicates further analysis and can lead to incorrect conclusions. Table 4-8 clearly demonstrates the total national budget and amount and share of the total MAFRD budget, but no available document presents the funding for all measures.

Table 4-8: MAFRD budget (in EUR million), 2001-2007, Croatia

	2001	2002	2003	2004	2005	2006	2007
Total national budget	7,942.4	9,704.0	10,349.2	10,992.3	11,797.4	12,840.9	14,137.9
MAFRD budget	253.5	258.1	319.3	333.1	358.2	387.8	453.0
Share (%)	3.2	2.7	3.1	3.0	3.0	3.0	3.2

Source: MINISTRY OF FINANCE [8].

Table 4-9 is an assessment of budgetary support to agriculture by group of measures, with some deviation from the publicly available data on total budget in Table 4-8. This can be explained by administrative and other expenses not calculated in Table 4-8. Because of the lack of data, 2004 and 2005 are not included in Table 4-9.

However, the fact is that direct production support was the most important item of MAFRD budget from 2000-2007, while other programs could count on considerably smaller amounts.

Table 4-9: Budgetary support to agriculture (in EUR million), 2001-2007, Croatia

	2001	2002	2003	2004	2005	2006	2007
Market and direct producer support measures	**195.5**	**230.6**	**252.3**	**:**	**:**	**358.5**	**392.1**
Market support measures	0.0	0.0	2.1	:	:	2.8	3.1
Export subsidies	*0.0*	*0.0*	*0.0*	*:*	*:*	*0.0*	*0.0*
Market intervention	*0.0*	*0.0*	*0.0*	*:*	*:*	*0.0*	*0.0*
Other	*0.0*	*0.0*	*2.1*	*:*	*:*	*2.8*	*3.1*
Direct producer support measures	195.5	230.6	250.2	:	:	355.7	389.0
Direct payments to producers	*179.3*	*211.6*	*201.8*	*:*	*:*	*295.0*	*328.6*
Based on output (price aids)	58.2	67.3	70.5	:	:	79.2	85.4
Based on current area/animal	121.1	144.3	131.3	:	:	215.8	243.2
Input subsidies	*16.2*	*19.0*	*48.4*	*:*	*:*	*60.7*	*60.4*
Structural and rural development measures	**7.0**	**10.9**	**28.8**	**:**	**:**	**12.1**	**40.0**
Improving the competitiveness of the agricultural sector	6.3	9.7	27.4	:	:	11.1	38.8
Improving the environment and the countryside	0.7	1.3	1.4	:	:	0.9	0.0
Supporting rural economy and population	0.0	0.0	0.0	:	:	0.1	1.3
General measures related to agriculture	**0.2**	**1.2**	**3.4**	**:**	**:**	**7.4**	**7.2**
Miscellaneous policy measures	0.0	0.0	0.2	:	:	0.0	0.0
Total budgetary support to agriculture	**202.7**	**242.7**	**284.7**	**:**	**:**	**378.0**	**439.3**

Note: Own assessment based on publicly available data and internal documents of Ministry of Agriculture, Fishery and Rural Development (compiled in APM database).

Most direct support was based on current area or animals (per head). A few products were supported per unit of output, especially for input products such as seedlings of olive, fruit and vines (pieces). Other support per unit of output went to for olive oil (per liter), fishery products, tobacco, honey (per kg), milk (per liter) and crop seed (per kg).

Structural and rural development policy measures are less supported but exhibit a tendency towards growth. In recent years (mostly 2006 and 2007) many measures which MAFRD began to support as a part of structural and rural development policy have been implemented. Thereby, the greatest growth in aid amounts is noted in structural and rural development policy measures, especially in 2007, which is the consequence of Croatian adjustment to the CAP and improving agricultural competitiveness in preparation for the open EU market.

6 SUMMARY AND CONCLUSIONS

Croatia declared its independence from Yugoslavia on June 25, 1991. During its initial years of transition, Croatia experienced the most severe output decline of all Central and East European countries. In 2000, GDP again registered continuous and increasing growth rates, backed by strong household consumption and investment activities. Croatia applied for EU membership in 2003, and the EC recommended making it an official candidate country in June 2004. Since then Croatia has been obliged to adjust to EU demands in all economic sectors, as well as in the agricultural sector.

The agriculture, forestry and fishery sector plays an important economic role in Croatia. The total value of agricultural production increased by 22 % from 2000 to 2006, yet its share of total GDP decreased from 7.0 % to 5.4 % for that same timeframe, and since then it has more or less stagnated. The share of employed persons in agriculture, fishery and forestry in total employment from 2005 to 2008 was 14.2 %, on average.

Croatia's favorable agro-climatic conditions enable diverse agricultural production. In a relatively small agricultural area due to diverse climatic conditions, relief and soil, a large number of agricultural crops, from wheat and industrial crops to wine grapes and Mediterranean fruits and vegetables are successfully cultivated.

According to the Agricultural Census 2003 there are 448,532 family farms and 1,364 agricultural holdings with an average farm size of 2.4 ha. The main causes of inefficient agricultural production are small land areas, dislocation and a far too fragmented structure of agricultural estates, especially when it comes to family farms. This fragmentation can mainly be ascribed to lax inheritance laws that do not contain restrictions for splitting up farms between heirs, even if they thereby become unviable.

Due to transition from a centrally planned to a market economy system, agricultural production in general shows a high degree of uncertainty and variation. Crop production's greater share indicates its relative importance in total agricultural production. Grains and oil-crops represent the main crops in Croatia. Fruit and vegetables are still highly uncompetitive productions in the context of domestic and international markets. Livestock production is a particularly important branch of agriculture in which many producers are involved; it contributes 45.4 % of agriculture's production value. Overall conditions for livestock keeping do not favor compliance with hygiene, animal welfare and environmental standards.

According to price indices, the greatest increase of agricultural prices was present in 2007. In 2009 a decrease of agricultural prices is notable, but prices in nominal terms are still 3.4 % higher than the base year of 2005. According to EAA from 2005-2008, an increase of most of the items is present: GAO, GVA, NVA, consumption of inputs, etc.

Croatia has been a net importer of agricultural and food products since 1994. The share of agriculture in exports is 10.5 % and in imports 8.5 %. The picture of economic relations has changed significantly in the last several years due to numerous signed free trade agreements. As a result of such liberalization, the value of Croatian exports of agricultural products is constantly rising, but Croatia still has a negative trade balance.

Greater liberalization of agricultural trade began after Croatia joined the WTO at the end of 2000. After accession, intensive negotiation processes with its main trade partners were continued in the frame of bilateral or multilateral agreements on free trade to provide more favorable placing of Croatian agricultural products on foreign markets. In October 2001 Croatia signed a Stabilization and Association Agreement with the EU. The trade provisions of the SAA are asymmetrically in favor of Croatia. This means that the EU has granted Croatia unlimited duty free access to the market of the enlarged EU for virtually all products. The only exceptions are young beef, fisheries, wine products and sugar (since 1 January 2007), for which tariff quotas remain.

Regarding domestic support in agriculture, in 2002 the Act on State Support in Agriculture, Fishery and Forestry was adopted and came into enforcement in 2003. Besides the previous production incentives model (area payments in crop production and per head in livestock production), three new models of support have been introduced: income support, capital investment and rural development. This reform was intended to gradually adjust agricultural policies to EU policies. The aim was to re-allocate funds in favor of these new models, with the partial decreasing of production support.

All aid to agriculture stemming from measures of national policy is financed from the state budget, which is adopted each year by the Croatian parliament. The MAFRD budget is constantly increasing. Despite the declarative intentions regarding the re-allocation of funds from direct production support to other programs, direct payments to producers still represent the majority of the MAFRD budget.

Croatia is currently in the pre-accession period, which implies that it is adapting national legislation to EU legislation. In the context of the agricultural sector and agricultural policy, intensive progress in harmonization can be noticed, including new Acts and changes in statistical methodologies. This challenging transitional period of harmonization includes the education of potential beneficiaries (farmers), stakeholders and all actors included in the implementation of agricultural policy measures. The harmonization of statistical methodologies will facilitate analyses of the agricultural sector in the future, while now and before the beginning of standardization, conclusions may be incorrect or incomplete. Data on certain phenomenon in agriculture over long time periods (more than 10 years), may also be incomparable due to differences between current methodology and that applied before standardization.

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CHAPTER 5

REVIEW OF AGRICULTURE AND AGRICULTURAL POLICY IN KOSOVO UNDER UNSCR 1244/99

MUHEDIN NUSHI *

1 INTRODUCTION

Kosovo lies in the center of the Balkan Peninsula, with no access to the sea. Neighboring countries are Serbia to the north and east (351.6 km border), Macedonia to the south (158.7 km border), Albania to the southwest (11.8 km border) and Montenegro to the northwest (78.6 km). Kosovo's climate is continental, with hot summers and cold winters.

Kosovo is a relatively small country, covering an area of 10,908 km^2. According to the Law on Municipal Borders (2008), Kosovo is demarcated by 7 regions, 33 administrative municipalities and 1,466 settlements. Its main cities are Pristina, Gjakova, Peja, Mitrovica, Prizren, Gjilan and Ferizaj.

According to the Statistical Office of Kosovo, the country's number of habitual residents is 2.1 million, of which 92.0 % are Albanians, and it has a population density of about 193 inhabitants per km^2. Kosovo exhibits a continuous tendency of population growth in absolute numbers. Kosovo women live longer than men, with a life expectancy of 71 years compared to 67 for men. The average life expectancy for both sexes is 69 years. Households are still large, with the average size estimated to be more than 6 members. Rural households are larger than urban ones.

Kosovo still has a high percentage of rural inhabitants (about 63 %). It is difficult to predict how the rural-urban ratio will change in the future, but if Kosovo follows other Balkan countries, it will experience a rapid shift in favor of urbanization.

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As an autonomous province within Serbia and as a part of the Socialist Federal Republic of Yugoslavia, Kosovo enjoyed a large degree of autonomy which was abolished by the Milosevic regime in 1989. Following years of mostly non-violent protests and the development of an underground parallel system (administration, schooling, etc.) for Kosovo Albanians, violent conflict erupted in 1998/99. In March 1999, NATO intervened on humanitarian grounds to put an end to the conflict, which had seen a massive displacement of the local population. Subsequently, United Nation Security Council Resolution (UNSCR) 1244 established the United Nations Interim Administration Mission in Kosovo (UNMIK) in June 1999 to support peace-building activities, organize and oversee the development of provisional institutions for democratic and autonomous self-government, protect and promote human rights, support the reconstruction of key infrastructure and to facilitate the political process that would determine Kosovo's future status.

On 10 November 2005, former Finnish Prime Minister Martti Ahtisaari was appointed by the UN Secretary General as UN Special Envoy for the future status process for Kosovo. During 18 months of negotiations, no agreement could be reached by the two parties, and on 15 March 2007, President Ahtisaari delivered his comprehensive proposal to the UN Secretary General. The proposal was designed to foster the building of a multi-ethnic, democratic society in Kosovo based on the rule of law. It also contains wide-ranging provisions intended to secure the future of all communities in Kosovo.

On 17 February 2008 the Kosovo Assembly adopted a resolution declaring Kosovo independent. On 18 February 2008 the Council of the European Union took note of that resolution and noted that Member States will decide, in accordance with national practice and international law, on their relations with Kosovo.

A joint EU-USA statement declared that the UNSC was not in a position to agree on the way ahead and endorsed the view that the potential for a negotiated solution had been exhausted and that the EU stood ready to play a leading role in implementing a settlement defining Kosovo's future status in a careful and coordinated manner.

The EU is fully committed to playing a significant role in post-status Kosovo. Therefore, the EU has decided to intensify preparations for a future EU and international presence in Kosovo, in close coordination with other international actors. Two EU preparation teams are deployed in Kosovo, and are tasked with planning for a future International Civilian Office and a possible EU mission in the broader rule of law area under the European Security and Defense Policy [4]. The EU fully supports both Kosovo's progress under the Stabilization and Association Process and its integration into the region.

2 MACROECONOMIC ENVIRONMENT

Over the past few years Kosovo's economy has shown significant progress in transitioning to a market-based system and maintaining macroeconomic stability, but it is still highly dependent on the international community and its Diaspora for financial and technical assistance. Remittances from abroad – mainly from Germany and Switzerland – are estimated to account for approximately 14 % of gross domestic product (GDP), and donor-financed activities and aid for another 7.5 %.

Table 5-1: Selected macroeconomic indicators (in %), 2001-2008, Kosovo under UNSCR 1244/99

	2001	2002	2003	2004	2005	2006	2007	2008
Change in real GDP	3.6	0.4	2.6	2.1	0.3	3.0	3.5	6.1
Inflation rate (annual average)	11.7	3.6	1.1	1.1	1.5	0.6	4.4	9.4
Unemployment rate	57.1	47.0	49.7	39.7	41.4	44.9	43.6	44.0
Share of food, beverage and tobacco in total household expenditures	:	:	50	45	43	43	44	41

Source: STATISTICAL OFFICE OF KOSOVO [10, 14], CENTRAL BANK OF KOSOVO [3].

Kosovo's citizens are the poorest in Europe [12], with an average annual per capita income of EUR 1,784 in 2008. The share of household expenditures on food, beverage and tobacco is high, although a decreasing trend can be noticed (from 50 % in 2003, to 41 % in 2008).

In 2008, compared with 2001, GDP per capita has increased by 50 %, while comparing with the year 2007 GDP has increased by 10 %. Economic growth was mainly generated by an increase of private consumption and public investment, and was largely financed by banking sector loans, remittances, foreign assistance, and a considerable increase of budget expenditures. During 2008, budget expenditures (especially capital outlays) recorded a considerable increase, leading to a slight budget deficit of 0.2 % of GDP.

Kosovo’s financial sector continues to perform well. Deposits of the banking sector, which is the most important sector within the Kosovo financial sector, recorded an annual growth rate of 26.4 % in 2008. Kosovo’s dependence on imports continues to translate to high trade deficits (43 % of GDP in 2008), consequently causing a high current account deficit (19.5 % of GDP).

Unemployment is a significant problem that encourages outward migration and black market activity. An unemployment rate of over 40 % remains a problem and a challenge for the economy. Unemployment is persistent, especially among the younger population. Kosovo has approximately 28,000 job seekers per year, with a much smaller number of new jobs created (around 6,500). In terms of age structure, around 80 % of registered jobseekers are aged 15 to 39, providing a good basis for labor-intensive industry.

The official currency of Kosovo is the Euro, which has helped keep core inflation low. Kosovo has one of the most open economies in the region, and continues to work with the international community on measures to improve the business environment and attract foreign investment. In order to help integrate Kosovo into regional economic structures, UNMIK signed (on behalf of Kosovo) its accession to the Central Europe Free Trade Agreement (CEFTA) in 2006. In July 2008, Kosovo received pledges of EUR 1.2 billion from 37 countries in support of its reform priorities. In June 2009, Kosovo joined the World Bank and International Monetary Fund.

Price stability in Kosovo, present since 2002, was strongly affected by external inflationary pressures at the end of 2007 and during 2008. After low inflation rates in previous periods, 2007 brought a much higher level of inflation at 4.4 %. Prices in Kosovo have been affected by the international increase of oil prices, which has impacted both energy and food prices. This level of inflation was mainly caused by the increase in the prices of bread and cereals by around 25 %, representing a significant part of the consumers' basket during 2007.

The annual average inflation rate in 2008 stood at 9.4 %, generated by the increase of prices globally. This signifies the sensitivity of prices in Kosovo against the external sector, which results from the high reliance of the economy on imports. Inflationary pressures were mainly triggered by the increase of food and, partially, energy prices in 2008. The average inflation rate without food and energy prices stood at only 2.9 %. Expectations on price developments for 2009 suggest a decreasing trend, mainly as a consequence of the decline in overall demand [3].

3 SITUATION OF THE AGRICULTURAL SECTOR

3.1 Natural conditions and land use

From the total of Kosovo's surface area of 1.1 million ha, around 53 % is considered to be agricultural land, whereas 41 % are forests and 6 % belong to other land uses [14]. In the agricultural sector, many farms and their machinery were destroyed during the war in 1999 and the whole sector, which was organized around cooperatives and state farms, was reorganized in an ongoing process of privatization. Nevertheless, given an employment share of 21.4 %, agriculture is among the region's main economic activities [13]. Of the total area of agricultural land, 39 % is arable land, 16 % is grassland, 1 % is land under permanent crops, and 44 % is comprised of state-owned land, land belonging to enterprises and cooperatives, and land left fallow [8]. Approximately 87 % of agricultural land is in private hands; the remainder is administered by the Kosovo Trust Agency.

Irrigation systems in Kosovo are a constraint to agricultural production, as water shortages affect farm productivity and profitability. Given its limited water

resources, it is vital that Kosovo protect, conserve, develop, and make efficient use of its water; this represents a major environmental challenge. The nominal irrigated area is around 71,000 ha, or 13 % of all farmland. However, irrigation systems are deteriorated and poorly maintained [15].

3.2 Farm structure

The farm size in Kosovo is very small, on average 1.5 ha. About 81 % of agriculture holdings have less than 2 ha, about 16 % have between 2-5 ha, while only about 3 % of agriculture holdings have more than 5 ha, of which only 0.8 % have more than 10 ha [8]. This very fragmented farm structure impedes the development of commercial agriculture and perpetuates subsistence farming.

Table 5-2: Distribution of farm numbers and area farmed by size classes, 2008, Kosovo under UNSCR 1244/99

	Number of farms		Agricultural area	
	1,000	**%**	**1,000 ha**	**%**
0 -<2 ha	142.1	80.5	123.3	46.7
2 -< 5 ha	28.5	16.1	82.5	31.3
5 -< 10 ha	4.5	2.5	30.7	11.6
>=10 ha	1.4	0.8	27.4	10.4
Total	**176.5**	**100.0**	**263.9**	**100.0**

Source: STATISTICAL OFFICE OF KOSOVO [8].

High land fragmentation presents a serious challenge to agricultural development. The size of farms adversely affects their competitiveness.

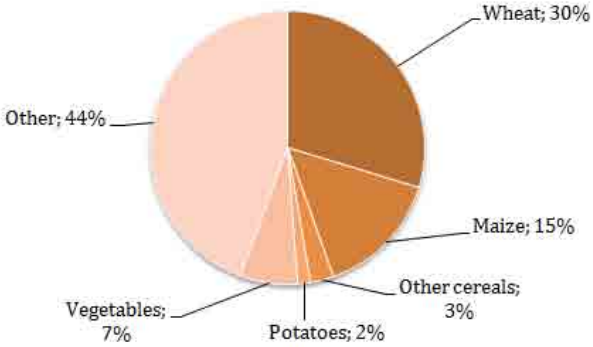
3.3 Agricultural production and output

Kosovo is endowed with fertile land suitable for agricultural production. The sector could be a potential source of growth, but factors that include the small average farm size, high dispersion of land tenure, low productivity and quality, together with the poor use of inputs and technology, high seasonal concentration, and underdeveloped infrastructure and advisory services do not allow Kosovo to compete with production from neighboring countries and the EU itself.

The main areas of arable land are concentrated in valleys and flat areas in the north and east. Traditionally, vegetable and fruit production has been concentrated mainly in the west. Recently however, fruit production has increased in other parts as well. Grazing pastures are located in the mountain areas.

Cereals and fodder crops account for the largest share of arable land in Kosovo, followed by vegetables. No major changes in land use patterns can be noticed between 2000 and 2008, although a slight improvement in production and yields is observed.

Figure 5-1: Breakdown of harvested area by main crops, 2008, Kosovo under UNSCR 1244/99



Source: STATISTICAL OFFICE OF KOSOVO [8].

Wheat and maize are the most important field crops in Kosovo in terms of cultivated area and production. Other important crops are beans, particularly as a mixed crop with maize, potato, cabbage and pepper. Overall production levels are very low and cannot satisfy domestic demand. The self-sufficiency rate for all vegetables is estimated to be only 13 % [2].

Concerning orchards, the two largest cultivations are plums and apples. Although the agro-ecological conditions for fruit production are relatively good and labor is available, the sector faces several impediments such as a lack of investments, old orchards and low quality varieties. The self-sufficiency rate for all fruits for Kosovo is only 6 % [2]. Kosovo has a considerable tradition in wine production and an extended area of vineyards. The main reasons for relatively low production are plantations being too old or too new, followed by hail and frost, and plant diseases [2].

Crops are mainly used within private households, either directly for human consumption or as animal feed. The share of commercialized production, either as primary agricultural products or after some processing, is small. Although the large and specialized farms sell a larger share of their production than the smaller farms, they still sell less than one-fifth of its output. This points towards the overwhelmingly subsistence character of Kosovo agriculture. Large and specialized farms use a slightly larger share of crops for animal feed than small farms, as they are more specialized towards livestock production.

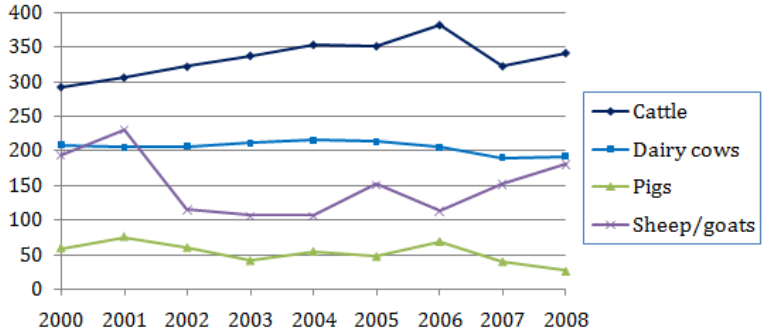
A very small expansion in the livestock sector has been achieved during the last 10 years. In Kosovo there are a number of relatively large farms that specialize in livestock. However, the statistics highlight the subsistence character of the livestock sector in small household farms. Cattle are very dispersed between agricultural

holdings, with an average of 1.3 cows per agricultural household. Pig production is concentrated in specific areas where non-Albanian communities live. Cattle are the major livestock, of which more than 50 % are dairy cows. The average number of milk cows is 1.5 on small farms and 4.4 on large and specialized farms.

Small farms have, on average, 17 sheep and goats, whilst large farms have much higher numbers. In Kosovo the demand for lamb meat and sheep and goat cheese is relatively stimulating for the development of small ruminant production. The problem is the weak knowledge of modern production technologies and animal welfare and health requirements.

From 2000-2006, the overall number of livestock slightly increased, while in the last two observed years a slight downward trend is noticed. The strongest decrease was observed in the pigs' category, as well as in the category of cattle numbers, including cows, while the number of small ruminants slightly increased in both 2007 and 2008.

Figure 5-2: Number of main livestock categories (in 1,000), 2000-2008, Kosovo under UNSCR 1244/99



Source: STATISTICAL OFFICE OF KOSOVO [8].

The main agriculture sub-sectors, especially fruits, vegetables and livestock, have marked slight progress and improvements in efficiency, which is reflected in higher yields and production quantities.

Local raw milk is mainly used for self consumption and farm sales. Some milk is also delivered to processors, where serious problems have been observed. According to interviews with major dairy processors, this area requires development. The quality of milk collected by dairy processors is doubtful and does not fulfill quality requirements. At the same time, due to low production in the winter and higher production in the summer, problems are occurring between farmers and processors. The development of contracts between parties would be a good step forward.

Table 5-3: Average wheat and milk yields, 2000-2008, Kosovo under UNSCR 1244/99

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Common wheat (t/ha)	2.6	3.4	3.4	3.7	3.8	3.9	3.5	3.4	4.1
Cow's milk (kg/cow)	1,476	1,497	1,475	1,211	1,476	1,494	1,517	1,466	1,466

Source: STATISTICAL OFFICE OF KOSOVO [8].

Note: Milk production is estimated by Kosovo Food and Veterinary Agency.

Although wheat and maize constitute the dominant crops, given the small land holding pattern a steadier source of growth may be found in fruit, vegetables, meat, poultry and dairy products. Value-added exists in agro-processing, which can help boost the private sector, particularly semi-commercial and commercial farms. However, producers prefer to sell their produce at harvest on the fresh market. The processing market is not well developed.

3.4 Agricultural prices

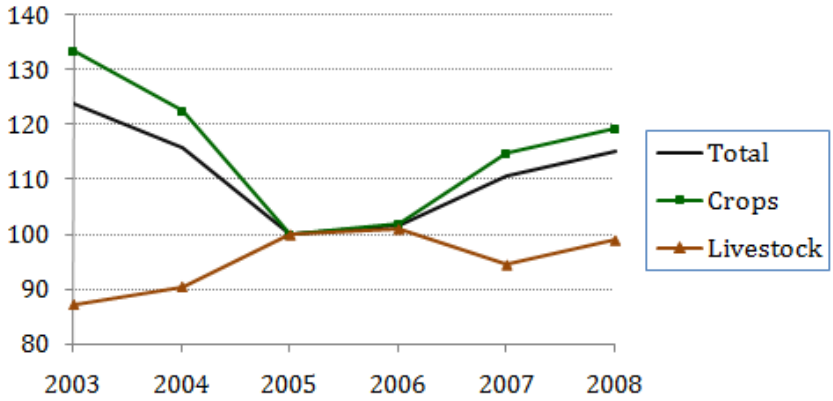
The Agriculture and Environment Statistics Department, which is financially supported by the Swedish International Development Cooperation Agency (SIDA), collects data on prices for agricultural products. SIDA has also built up the agro-monetary statistics system. Prices have been collected since November 2003 in seven regions (Peja, Pristina, Prizren, Ferizaj, Gjilan, Gjakova, Mitrovica) around the 15th of every month.

The products which make up the foundation of the Output Price Index are divided into two main groups: crop and animal output. Within crop output, prices are collected for cereals, forage plants, vegetables, potatoes and fruits. For animals, prices are collected for cattle, sheep, pigs and poultry. These prices are based on the live weight of the animals. Regarding animal products, prices are collected for milk, eggs and honey.

Due to the open trade regime and the high proportion of agricultural imports, both for inputs and final products, prices are determined largely by the import price. In certain sectors, a small number of traders have substantial market power, which may also affect domestic prices.

Crop output prices, as well as prices in general, had a decreasing tendency (in real terms) from 2003 to 2005, while animal output prices had an increasing tendency during the same period. After 2005 prices have generally significantly increased, especially in 2007 and 2008, while they slightly decreased in 2009. The trends are similar to those on the European market, which is consistent with an open market-oriented system.

Figure 5-3: Agricultural output price indices, 2003-2008 (2005=100), Kosovo under UNSCR 1244/99



Source: STATISTICAL OFFICE OF KOSOVO [11].

Note: Calculated from nominal indices using inflation as a deflator.

Absolute prices are collected for 64 products to measure prices that farmers receive for the products that are sold outside the sector. The price collection is carried out on open markets, farms and other places where prices on agriculture products are available.

Table 5-4: Producer prices of certain agricultural products (in EUR/t), 2003-2008, Kosovo under UNSCR 1244/99

	2003	2004	2005	2006	2007	2008
Common wheat	140	190	140	150	250	270
Corn/Maize	120	230	180	160	220	200
Potatoes	280	320	220	310	300	300
Pepper	500	500	520	550	620	630
Beans	1,500	1,560	1,540	1,650	1,910	2,270
Apples	490	530	490	510	560	600
Plums	700	700	700	770	720	770
Beef (live weight)	1,300	1,400	1,700	1,800	1,750	1,920
Sheep meat (live weight)	1,500	1,500	1,900	1,800	1,800	2,040
Milk	262	272	272	282	282	330
Eggs (1,000 pieces)	70	74	77	75	82	91

Source: STATISTICAL OFFICE OF KOSOVO [11].

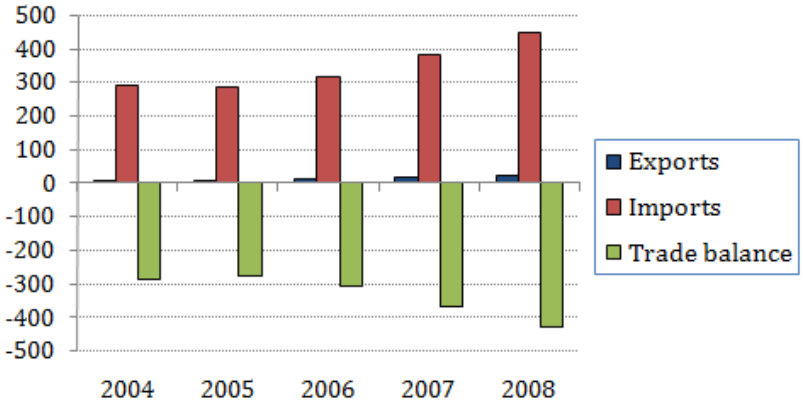
The plan for the future is to increase the number of products and also to complement it with an Input Price Index.

4 AGRICULTURAL TRADE

Reliable trade statistics for Kosovo are only available from 2004. From 2000-2004 the UNMIK Customs Service was being established and data was not systematically recorded according to product type or country.

Kosovo is a net-importer of agri-food products, with a high and increasing trade deficit. Imports have increased considerably in recent years, while exports have remained very low.

Figure 5-4: Agri-food trade (in EUR million), 2004-2008, Kosovo under UNSCR 1244/99



Source: STATISTICAL OFFICE OF KOSOVO [9].

Note: Agri-food trade according to Combine Nomenclature of Custom Tariffs (CNCT).

In 2008, the agri-food sector provided approximately 10.3 % of total exports and 23.2 % of total imports.

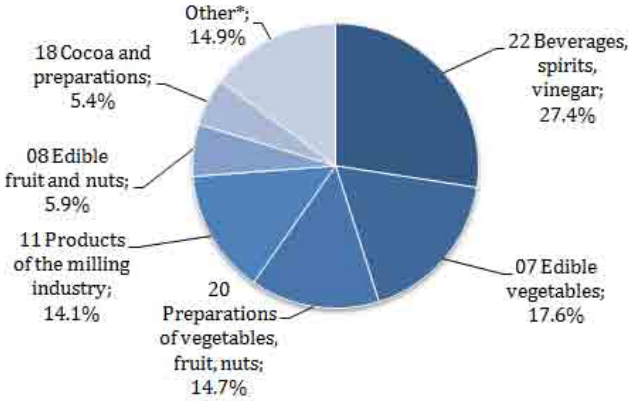
Table 5-5: Share of agri-food trade in total trade (in %), 2004-2008, Kosovo under UNSCR 1244/99

	2004	2005	2006	2007	2008
Agri-food exports	11.4	14.0	10.5	11.0	10.3
Agri-food imports	27.6	24.6	24.4	24.3	23.2

Source: STATISTICAL OFFICE OF KOSOVO [9].

The main Kosovo agri-food exports are beverages (mainly wine exported to Germany and regional countries), vegetables and processed products.

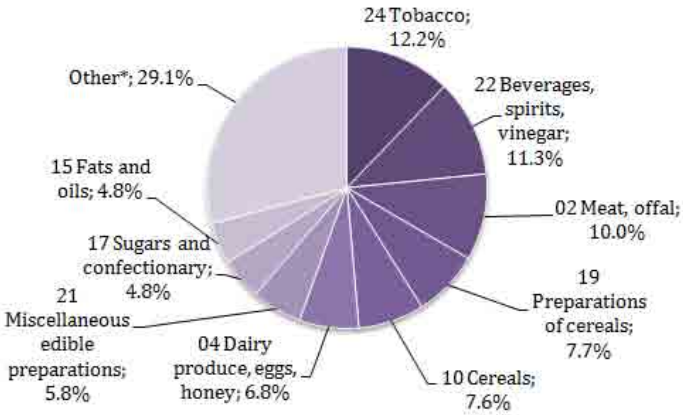
Figure 5-5: Composition of agri-food exports by main commodity group, 2008, Kosovo under UNSCR 1244/99



Source: STATISTICAL OFFICE OF KOSOVO [9].

Notes: Other* – Groups of products with a share below 4.5 % each of the total.
Agri-food trade according to Combine Nomenclature of Custom Tariffs (CNCT).

Figure 5-6: Composition of agri-food imports by main commodity group, 2008, Kosovo under UNSCR 1244/99



Source: STATISTICAL OFFICE OF KOSOVO [9].

Notes: Other * – Groups of products with a share below 4.5 % each of the total.
Agri-food trade according to Combine Nomenclature of Custom Tariffs (CNCT).

Agri-food imports increase after 2005, while the structure of imports does not change substantially. Tobacco, beverages and meat are still at the top of imported products (Figure 5-6). The import of tobacco and meat increased in 2008 compared with

2007 (by 0.9 % and 2.1 %, respectively), while the import of beverages has decreased (by 1.2 %).

Approximately 80 % of Kosovo agri-food exports target Western Balkan countries, while 45 % of imports come from Western Balkan countries. Macedonia, Albania and Serbia are the most important agri-food trade partners. Germany is the most important country for export from Kosovo, mainly due to the export of wine products.

5 AGRICULTURAL POLICY

5.1 Characteristics and changes in trade regimes and tax policy

Kosovo is committed to trade liberalization. Kosovo institutions have been part of processes and undertakings for trade liberalization in the region, particularly those initiated by the Stability Pact. Kosovo made clear its commitment to respect its obligations to the Memorandum of Understanding for Trade Facilitation and Liberalization signed by the countries of South East Europe (SEE) in 2001 within the auspices of the Stability Pact. Kosovo was active in the signing process of the first free trade agreement with Albania, and later with Macedonia, Bosnia and Herzegovina and Croatia. The entire negotiation process was concluded by extending CEFTA with SEE countries in 2006, thus converting bilateral agreements into one single free trade agreement where Kosovo became an equal member with full rights. Although Kosovo has certain responsibilities as a part of the CEFTA, there are many positive aspects to the process. One of these benefits will be the free flow of goods and services. Also, in the process Kosovo will gear up institutions and policies to comply with WTO requirements.

Kosovo is part of the Stabilization Association Process although in a different form compared to other countries of the region. As a small number of countries within the EU have not recognized Kosovo as being independent, a Kosovo Tracking Mechanism remains in force, and is designed to guide Kosovo towards reforms necessary for EU membership. Relations with the EU are essential for the development of Kosovo's economy, bearing in mind that the EU is the market with the greatest potential, not only for Kosovo but the whole region, and is also the main source of investments.

A recent development in the context of liberalization is the inclusion of Kosovo in the Generalized System of Preferences by the United States of America. This program is designed to promote economic growth in developing countries by offering preferential treatment for a significant number of commodities. So far, the USA market has not received a significant share of total Kosovo exports.

The Government of Kosovo took major steps in making its tax policy more conducive to business and investments (the new tax schedule entered into force on

January 1, 2009). Kosovo is now applying very competitive tax rates relative to the region of SEE. No VAT charge will be applied on imported inputs (VAT rebate applies), other production inputs, or final exported products. In other cases, the VAT is uniform and as such is collected for all goods, except in some specific cases.

Goods destined for foreign markets are not charged with customs fees. On the other hand, imports, with some exemptions, are charged with a customs tariff of 10 %. Products from Serbia and Montenegro are not charged with customs tariffs, and the countries with which Kosovo has signed FTA are charged only a 1 % tariff. Also, certain categories of products are exempt from customs; for instance, artificial fertilizers, medical equipment, and goods for humanitarian purposes. In 2004 some products and agricultural machinery were partly released from customs tariffs and the VAT. No customs duties are required from the import of wheat and maize, according to Regulations 2007/31 approved in 2007.

5.2 Agricultural policy framework

The Ministry of Agriculture, Forestry and Rural Development (MAFRD) in Kosovo was established in 2002. The MAFRD is responsible for developing and implementing policies and legislation on agriculture, forestry, and rural development at the national level, while at the local level, every municipality has its Directorate for Agriculture.

In 2003, MAFRD compiled a Green Book titled Strategy for Sustainable Agricultural and Rural Development in Kosovo, containing medium-term strategic policies and options.

The main agricultural document which Kosovo already has is an Agriculture Rural Development Plan (ARDP) in accordance with EU policies. ARDP 2007-2013 was approved by the government in April 2007. The ARDP 2007-2013 is a medium-term document, the aim of which is to support the development of the agro-rural sector.

The document was prepared using the same EU policy development framework to prepare Kosovo to meet with EC requirements and to be able to use the pre-accession structural funds in the future. The strategy document was prepared and adapted to the agricultural sector and the challenges specific to the Kosovo rural population. This means that implementing this strategy will not foster an agriculture-based development through enhancing and improving the capacities of the agriculture or farming population, but it combines it with other components such as increasing competitiveness of the sector through value-adding activities, environment protection, improving the quality of life in rural areas, creating conditions for the development of other non-farm activities, etc.

MAFRD has updated the ARDP for 2009-2013 in light of revised priorities and the availability of new data. The general objectives for agro-rural development in

Kosovo under ARDP 2009-2013 [5] are: (i) Additional income for farmers and rural dwellers, leading to improved living standards and working conditions in rural areas; (ii) Improved competitiveness and efficiency of primary agricultural production in order to achieve import substitution and take advantage of export markets; (iii) Improved processing and marketing of agricultural and forestry products, through increased efficiency and competitiveness; (iv) Improved on-farm/in-factory quality and hygiene standards; (v) Sustainable rural development and improved quality of life (including infrastructure) through the promotion of farming and other economic activities that are in harmony with the environment; (vi) Creation of employment opportunities in rural areas, particularly through rural diversification; and (vii) Alignment of Kosovo's agriculture with that of the EU.

ARDP 2009-2013, which consists of 4 axes and 8 measures, envisages the sustainable development of Kosovo's agro-rural sector in line with that of the EU:

- Axis 1 – Competitiveness: development of vocational training to meet rural needs; restructuring physical potential in the agro-rural sector; managing water resources for agriculture; improving the processing and marketing of agricultural products.
- Axis 2 – Environment and improved land use: agro-environmental support for natural resource management.
- Axis 3 – Rural diversification and quality of rural life: farm diversification and alternative activities in rural areas; improvement of rural infrastructure and maintenance of rural heritage.
- Axis 4 – Community-based local development strategies: support for local community development strategies.

Harmonization with the EU *acquis communautaire* is taking place within the adopted European Partnership Action Plan (2006), which gives priority in the short-term to agricultural issues such as: managing water resources for agriculture; improvement of natural resource management; farm diversification and alternative activities in rural areas; improvement of rural infrastructure; and maintaining rural heritage. Environmental protection is not yet fully incorporated into the agricultural development policy agenda. Procedural uncertainties are delaying the adoption of key framework laws and strategies. Support programs for rural development, such as agro-environmental grant schemes, are in place, but awareness among farmers is limited.

Increased collaboration between local stakeholders and international institutions (EU, World Bank, SIDA, etc.) is bringing Kosovo closer to EU legislation and standards. The Kosovo Environmental Action Plan (KEAP) has been drafted for 2006-2010, and includes: completion of legislation and its harmonization with EU legislation; drafting an Agriculture Action Plan for rehabilitating irrigation

networks; establishing the prerequisite conditions for developing eco-tourism; promoting and supporting organic production; optimizing fertilizer and pesticide use; developing training programs for good agricultural practices; developing agro-environmental indicators; and establishing a modern certification system for organic products. However, a lack of well-established legislative procedures for approving national strategies weakens the effectiveness of the proposed policies and strategies.

Moreover, monitoring and information systems are far from adequate. The KEAP recommends organic production (a national law on the issue has been drafted) and effective fertilizer and pesticide use. The KEAP also suggests incentives to foster the application of traditional farming methods, development of good agricultural practices, and environmental protection, as well as pilot projects for recycling organic waste and wastewater.

On 11 June 2009, the Assembly of Kosovo approved the Draft Law on Agriculture and Rural Development, which aims to achieve these objectives: (i) Competition in agriculture and rural production that increases its competitive ability on both domestic and foreign markets, which is enabled through increasing the productivity and efficiency of the economic activities in rural areas; (ii) Increase of incomes for the rural population by increasing their welfare through the improvement of working and living conditions, as well as creating equal opportunities for all marginalized groups; (iii) Economic stability by ensuring that agriculture production is sustainable; (iv) The quality of food, by ensuring that the food chain is of a sustainable quality and that it fulfills pre-determined standards; (v) Sustainable environmental protection; (vi) Convergence that aims to reduce differences in the levels of development of different regions, by developing alternative and complementary activities that generate employment in order to encourage people living in rural areas and supporting small and medium businesses; (vii) Food safety that does not cause harmful effects on human health when it is produced and consumed in compliance with standards and conditions of production.

5.3 Agricultural policy instruments and measures

The MAFRD is being supported by foreign donations, mainly from the European Commission and other international organizations that have contributed to projects in various sectors of agriculture.

EU support to Kosovo started in 1998 through the implementation of projects funded through the European Agency for Reconstruction (EAR) [1].

In 1998-2003 EUR 55.1 million was provided to strengthen advisory support services to farmers and agribusiness enterprises; develop agricultural statistics to improve policy formulation at the ministry; support the production, distribution and marketing of seed and planting materials to EU standards and manage agricultural

information campaigns; effective management and sustainability of Kosovo's irrigation system; establishment of a rural micro-finance scheme to provide loans to farmers and small rural enterprises.

In 2004 EUR 4.0 million was provided for the Rural Development Program focused on revitalizing the rural economy. The agency assisted MAFRD and municipal agriculture offices to improve the planning and implementation of agriculture policies.

In 2005 EUR 9.2 million was provided to focus on institution building (Kosovo Centre for Livestock Breeding, Marketing Support and Land Utilization).

2006 in EUR 5.0 million was provided for three projects providing a platform for the implementation and institutional support of ARDP 2007-2013.

Other donors have or are implementing projects that complement those of EAR, examples of which are summarized below.

FAO/WB previously provided grant support for the distribution of fertilizers and seeds, as well as for the vaccination of livestock, the repair of agricultural machinery, the reestablishment of forests and the import of tractor/implements and cows to restock the cattle herd.

The FAO helped rehabilitate veterinary services. They also managed a grant support, advisory and training program primarily aimed at rural micro-enterprise development and capacity building. With bilateral support from Luxembourg, the FAO is implementing a project in the remote mountain areas in and around Dragash.

The Swedish International Development Agency (SIDA) is mainly involved in supporting the forestry sector. Along with the FAO, SIDA is providing support for forest institutions and legislation. SIDA is supporting forestry education and training in Kosovo on a bilateral basis.

The Norwegian government is implementing a project to support forest management using GIS technology.

The German government has supported integrated rural development activities, focusing on cheese and fish production and marketing.

USAID is implementing the Kosovo Cluster and Business Support program. In relation to agriculture, the target sectors are dairy, beef, poultry, animal feed, fruit and vegetables. The approach of the project is to identify problems between the farmer and final consumer, and provide specific technical and other support in order to solve them.

Swiss aid has two relevant programs in Kosovo. The Swiss inter-cooperation fruit and vegetable marketing project has produced useful pilot programs related to price information collection and dissemination systems, and also for the introduction of new fruit and vegetable varieties, packing and branding. The Swiss Contact

dairy project has also prepared useful data on prices and standards, as well as encouraging links between processors and dairy farmers in order to improve the overall quality and quantity of milk supplied.

KFOR/CIMIC has a program that is helping to establish farmer associations. The approach is based on making milk cooling available to participating groups of suppliers.

Mercy Corps, along with MAFRD, is implementing a project to support the creation of six producers' associations in selected municipalities.

In 2009, MAFRD has been supported by other foreign donations: the EC has funded technical support (EUR 2 million), and the preparation of the Local Development Strategy (EUR1.8 million); the project dealing with Development Support for Farmers in Montenegro and Kosovo is receiving funding from the FAO and the Government of Luxembourg (EUR 2.11 million); USAID is funding a project that supports private enterprises; the Swiss Project for Horticultural Promotion receives support from the SDC and Danish Government (CHF 4.75 million; 2008-2011).

The annual budget for agriculture and rural development support is provided by the annual Kosovo Consolidated Budgets laws, which contains wages and salaries, goods and services, utilities, subsidies and transfers and capital outlays.

Table 5-6: MAFRD budget (in EUR million), 2003-2010, Kosovo under UNSCR 1244/99

	2003	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**Draft 2010**
MAFRD budget	2.3	2.7	4.8	5.9	6.5	9.4	12.1	11.6

Source: MINISTRY OF ECONOMY AND FINANCE [7].

The recovery of agriculture has been quite rapid, taking into account the low resources that are allocated to it. In 2002 the effective budget for agriculture was only 0.6 % of total public expenditures. Since then the budget allocated to agriculture was increased by 41.2 % from 2005 to 2006; by 20 % from 2006 to 2007; and by 35.2 % from 2007 to 2008. Unfortunately, compared with the total budget of Kosovo, the percentage allocated to agriculture remained approximately the same.

Part of the total MAFRD budget allocated to direct measures to support agriculture for 2009 was EUR 5.2 million, up from EUR 1.2 million in 2008.

Table 5-7: Subsidies and grants by the MAFRD, 2009, Kosovo under UNSCR 1244/99

Project/Support measure	EUR mill.	Number of bene-ficiaries	The amount of subsidy/grant
Grain production	2.121	5,224	10 EUR/ha
Harvesting	0.432		35% of the price of diesel fuel
Sheep and goats	1.403	1,366	10 EUR/head
Dairy cows	0.350	636	50 EUR/head
Breed improvements	0.216	623	60 EUR/head
Establishing vineyards	0.460	147	Certified seedlings subsidy
Building of new greenhouses	0.117	39	30% of the value of the project
Agricultural machinery	0.038	32	50% of the value of the project
Agro-processing	0.045	16	50% of the value of the project
Local action groups	0.040	11	50% of the value of the project
Improvement of environmental conditions on livestock farms – Pilot project	0.030	9	

Source: MAFRD [6].

In addition to the groups of measures presented above, other measures are as follows: rehabilitation and expansion of irrigation systems; creating a register of vineyards and wine; cadastral services of vineyards; land consolidation; monitoring of land consolidation; reforestation of bare surfaces.

Through these support schemes for farmers, MAFRD aims to increase farmers' incomes, improve the competitiveness of agricultural enterprises and agro-processing, replace imports with local products, increase agricultural productivity, etc.

For Kosovo, a small country with certain limitations, it is extremely important to use its institutional resources in effective and efficient ways. The main objective in future will be to help support agri-food research become more market-oriented and competitive.

6 SUMMARY AND CONCLUSIONS

Over the past few years, Kosovo's economy has shown significant progress in its transition to a market economy and macroeconomic stability, but it is still highly dependent on the international community and the Diaspora for financial and technical assistance.

Kosovo's citizens are the poorest in Europe. Economic growth has mainly been generated by the increase of private consumption and public investment, which is largely financed by banking sector loans, remittances, foreign assistance, and a considerable increase of budget expenditures. The unemployment rate of over

40 % remains a problem and a challenge for the economy. Kosovo has a very young population, which could provide a basis for labor-intensive industry.

Kosovo is part of the CEFTA and enjoys customs-free access to the EU through the Autonomous Trade Preference regime. At the end of 2008, the United States designated Kosovo as a beneficiary under the Generalized System of Preferences program.

Price stability in Kosovo was strongly affected by external inflationary pressures at the end of 2007 and during 2008. The countries from which Kosovo imports the largest amounts of food products applied quotas on exports as a measure of protection against the food crisis. These measures resulted in higher food prices in Kosovo.

Agriculture is an important economic sector in Kosovo, and the agricultural system has very strong potential to commercialize and increase employment and income. To achieve developments, the agricultural sector has already established a legislative base for some sub-sectors according to EU and international standards.

From the total of Kosovo's surface area, around 53 % is considered agricultural land, whereas 41 % are forests and 6 % belongs to other land uses. Approximately 87 % of agricultural land is in private hands; the remainder is administered by the Kosovo Trust Agency. MAFRD is responsible for agriculture and forestry at the national level, while at the local level, every municipality has its Directorate for Agriculture.

One of the major challenges for agriculture production in Kosovo is its small farm size, which hinders efficiency and the supply of high quantities. Unfortunately, high quantities are one of the requirements of the emerging supermarket chains, as well as importers. The quality of inputs is often not good, while prices are quite high. Farmers continue to use outdated technology and have insufficient post-harvest facilities. Food safety and quality is another major challenge, and one of the key factors limiting Kosovo agri-food exports. However, some private companies are already certified with HACCP[1] and ISO standards.

Agriculture remains the principal sector of the Kosovo economy and its largest employer. However, as a result of war damage, farm abandonment, and the destruction of rural infrastructure, agricultural productivity remains low, and Kosovo relies on agricultural and food imports. Domestic agriculture satisfies 25 to 35 % of local demand for agricultural and food products and food imports remain high.

Agricultural statistics, as well as other statistics in Kosovo, can be estimated as only being partially approximated to EU standards. Generally, the statistical system in Kosovo requires census on the state level. Thus, a great deal of published data regarding agricultural production is the result of estimations that make them

[1] Hazard Analyses Critical Control Points.

unreliable. Since the end of the war (1999), neither population nor agricultural censuses have been conducted in Kosovo. The last Population Census was conducted in 1981, while the last Agricultural Census was in 1964. Therefore, there is a considerable need for support to adjust the structure of data collection and the system of statistics into an integrated system compatible with EU requirements and with those of the process of EU integration.

The Government of Kosovo is taking several measures and strategies to support agriculture and rural development. The two main strategy documents related to agriculture and rural development are the Strategy for Sustainable Agricultural and Rural Development in Kosovo, and the Agriculture Rural Development Plan 2007-2013, which is in accordance with EU policies. MAFRD has updated its ARDP 2007-2013 to ARDP 2009-2013 in light of revised priorities.

The strategy was prepared using the EU policy development framework to prepare Kosovo to meet with EC requirements and to be able to use the pre-accession structural funds in the future.

Priorities need to be linked to limited domestic financial resources and outside technical assistance. Considering the size of the agricultural sectors, they should occupy a more prominent position in Kosovo's consolidated budget and more attention should be devoted to mainstreaming environmental concerns into agricultural policy. This includes strengthening the financial, institutional, technical, and organizational aspects of agricultural management. The agricultural sectors require monitoring and information dissemination systems to provide indicators on development trends and help policy-makers formulate appropriate policies. Better cooperation between governmental bodies, research institutions and the statistical office of Kosovo can speed up this process.

MAFRD must give priority in the short-term to agricultural issues such as managing water resources for agriculture; improving natural resource management; farm diversification and alternative activities in rural areas; improvement of rural infrastructure; maintenance of rural heritage; promotion of organic production; and the optimization of fertilizer and pesticide use.

MAFRD foresees direct payments in the form of grants for investment in production technologies, as well as in new plantations, production of animals, equipment, agricultural machinery and storing capacities, to further expand the range of measures and budget in 2010.

Kosovo law has new agri-food legislation which is harmonized with EU principles. Agri-food legislation continues to be improved upon to respond in the most effective manner to food safety and quality. The main challenge is implementing the laws. Overall, there has been some progress in improving the legal framework on agriculture and rural development, food safety and veterinary policy, but further efforts are still required to enhance the capacity of all actors involved.

MAFRD had a new round of dialog on the stabilization and association process, where agriculture issues were discussed with special emphasis, in particular regarding the implementation of Kosovo strategy for agriculture development. The focus of this process was the development of the rural economy and raising the quality of production according to EU norms, but also how to overcome the obstacles that the rural economy of Kosovo is facing, such as access to credit, financing or the need for land consolidation.

Kosovo is participating in the Stabilization and Association Process (SAP), the EU's policy framework towards the Western Balkans, by following the guidelines of the European Partnership. The SAP steers Kosovo's reform process according to EU best practice and European legislation. The Stabilization and Association Process Tracking Mechanism is the instrument that guides and monitors Kosovo's development with regard to European Partnership.

It is very clear that Kosovo is undergoing important reforms in its agricultural policy, with the aim of aligning with EU regulations. However, a great deal of work must still be done.

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CHAPTER 6

REVIEW OF AGRICULTURE AND AGRICULTURAL POLICY IN FYR MACEDONIA

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1 INTRODUCTION

The Former Yugoslav Republic (FYR) of Macedonia is a landlocked country in southeastern Europe with a surface area of 25,713 km^2. The country contains heterogeneous natural conditions and land structures, with mainly hilly and mountainous geography. Valleys comprise a relatively small part of the country's total territory, roughly one-third, whereas two-thirds are characterized by various sea levels and exposures.

The Macedonian population has maintained positive natural growth. Currently the country is inhabited by 2.05 million people. From 2000-2008, the population grew by 1.12 %; total fertility shows a steady rate of around 1.46/per woman [12].

The largest ethnic group is Macedonians (1.3 million in 2002), followed by Albanians (0.5 million in 2002). Minorities comprise 10 % of the total population, mainly Turks (0.08 million), Roma (0.05 million), Serbs (0.04 million), Bosnians (0.02 million), and Armenian/Vlachs (0.01 million).

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The last census was conducted in 2002, according to which the population density reached 78.7 inhabitants per km^2 [15]. There is a large discrepancy in the population density between rural and urban areas, supported by the related trends of abandoning rural areas and urbanization. The agricultural population is leaving agricultural areas and changing occupation. Nowadays, nearly 58 % of the country's inhabitants live in cities. The share of population living in the three largest cities is 32.5 %, whereof nearly one-fourth is concentrated in the capital, Skopje. Migration by the agricultural population into non-agricultural areas has caused pressure on employment in the secondary and tertiary sector.

FYR Macedonia declared its independence from the former Socialist Federal Republic of Yugoslavia in 1991, and since then the country has been a parliamentary democracy.

FYR Macedonia was officially accepted as a member of the World Trade Organization in April 2003. In addition, it has signed a number of free trade agreements with different countries from the region as steps towards strengthening regional integration and cooperation, the latest being membership in Central Europe Free Trade Agreement (2006). In December 2005, FYR Macedonia became a Candidate County for EU membership.

2 MACROECONOMIC ENVIRONMENT

The recent overall economic performance of FYR Macedonia has been marked by positive gross domestic product (GDP) growth, fairly low inflation and solid public finances. However, severe and widespread unemployment persists, and is one of the crucial factors behind an overall poverty rate of around 20 %.

Table 6-1: Selected macroeconomic indicators (in %), 2000-2008, FYR Macedonia

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Change in real GDP	4.5	-4.5	0.9	2.8	4.1	4.1	4.0	5.9	4.8
Inflation rate (annual average)	5.8	5.5	1.8	1.2	-0.4	0.5	3.2	2.3	8.3
Unemployment rate	32.2	30.5	31.9	36.7	37.2	37.3	36.0	34.9	33.8

Source: STATE STATISTICAL OFFICE [12], NATIONAL BANK [9].

In 2001 there was an abrupt halt to the increasing economic performance of the country due to internal ethnic conflict, which resulted in a GDP decrease of -4.5 %. Political dialog and The Ohrid Framework Agreement resolved the political issues associated with this conflict. Since then the country has made considerable efforts to rejuvenate its economy, resulting in economic growth that displayed an upward trend starting in 2003 and which peaked in 2007. In 2008, GDP reached 3,175 EUR per capita [8].

In terms of unemployment, in the last decade it has shown a steadily high rate (over 30 %), reaching a maximum in 2005 (37.3 %), before slowly decreasing to

33.8 % in 2008 [12]. The high unemployment rates have halted the country's overall development.

The Macedonian currency (denar) continues to be pegged to the Euro; interest rates have dropped considerably (from 10-15 % to 5-10 %) and inflation level remains relatively low [12]. Nevertheless, the cost of living is gradually increasing. In 2008 the average salary was approximately EUR 260. The share of food, beverages and tobacco in household expenditures is approximately 43 % [12].

3 SITUATION OF THE AGRICULTURAL SECTOR

3.1 Importance of agriculture in the economy

Agriculture has always been an important contributor to Macedonia's economy. Although the country faced many political and economic challenges in the past, this sector has exhibited an important flexibility and has contributed significantly to social and economic stability.

Traditionally, agriculture has been one of the most important sectors in the Macedonian economy. Its share of the GDP is approximately 10 %, and coupled with the food industry the total share raises to about 15 %. Moreover, the agricultural sector contributes some 20 % to total employment [12].

Table 6-2: Share of agriculture in the economy (in %), 2000-2008, FYR Macedonia

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Share of agriculture[1] in GDP (current prices)	10.0	9.8	10.0	11.4	11.3	10.8	10.8	9.4	10.4
Share of agriculture[1] in total employment	27.0	24.9	23.8	22.0	16.8	19.5	22.1	18.2	19.6
Share of agri-food exports[2] in total goods' exports	12	14	15	14	14	13	12	12	11
Share of agri-food imports[2] in total goods' imports	10	17	19	17	16	17	16	14	14

Source: STATE STATISTICAL OFFICE [13, 17].

Notes: [1] Agriculture together with forestry and hunting.
[2] Agri-food trade according to Combine Nomenclature of Custom Tariffs (CNCT).

From the beginning of the 1990s many industrial capacities were closed down. This resulted in increased labor availability in the agricultural sector, both from the rural and urban population. The share of agriculture in employment is relatively significant, with a tendency to remain as such. On the one hand, increasing political attention and resources are being directed towards agriculture because of the EU integration process, with a positive influence on the attractiveness of the sector. On the other hand, the economic and industry growth in other sectors might prove to be more appealing to employers in the future.

The agri-food trade is a significant contributor to the country's economic performance. In recent years, the share of agri-food exports in total exports has been approximately 12 %, while agri-food imports contribute about 14 % to total imports. Agri-food imports actually surpass exports, creating a negative trade balance. Experts estimate that with the liberalization of the trade until the end of 2010, this trade deficit will deepen, especially in the agri-food sector.

3.2 Natural conditions and land use

The general weather conditions are typified by three climate types: continental, mountainous and Mediterranean climate. The continental climate is characterized by warm summers and moderately cold winters. The insufficient and irregular amounts of rainfall, low air humidity and relatively strong winds are typical features of the continental climate. The Mediterranean climate is characterized by relatively moderate differences in temperature and higher air humidity. The mountain climate has an influence at higher altitudes where highland pastures are located.

Climate indicators, especially summer draught and early-autumn and late-spring frost are some of the crucial constraints to intensive open-field crop production, which have a negative influence on yields.

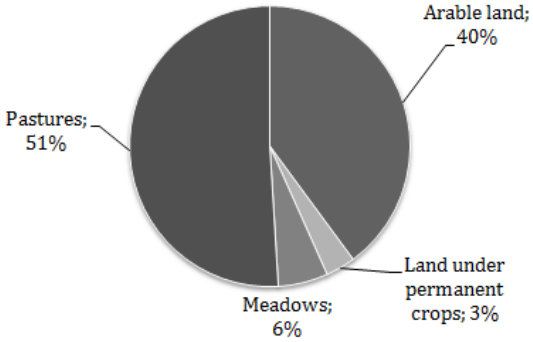
Total agricultural area in 2008 occupied about 1.1 million ha or 41 % of the country's total area. A further 40 % of the land is wooded area, while the remainder is other types of land area and inland water [12].

The change in proportion of the agricultural area per municipality varies a great deal; in some municipalities it has ascending potential and in others it has descending. Municipalities with a higher population density typically exhibit a decline in total agricultural area. There is, however, an overall tendency towards the reduction of agricultural area.

Almost half of Macedonian agricultural land is used for relatively intensive systems of production and the other half is used as pastures, which are perceived as agricultural systems with extensive character.

In 2008 arable land comprised 424,000 ha, or 40 % of the country's total agricultural land (Figure 6-1). Land under permanent crops made up only 3 % of total agricultural area, which is a relatively small share. The remaining portion (57 %) was permanent grasslands, which are not fully exploited. Pastures should not be undervalued; their share is very high, and with appropriate technology they can play an important role in the livestock sub-sector.

Figure 6-1: Agricultural land use, 2008, FYR Macedonia



Source: STATE STATISTICAL OFFICE [12, 14].

In recent years, roughly 30 % of arable land has been left fallow and uncultivated [12]. The low effective use of agricultural land is due to several factors, such as: parceling-out and fragmentation; price volatility; agricultural policy; existing marketing patterns; undeveloped buy-out and wholesale networks; and the depopulation of rural areas.

3.3 Farm structure

Agricultural companies (mostly originating from the former state-owned holdings) and family farms mainly constitute the country's farm structure. Family farms own or lease approximately 80 % of agricultural land, whereas the remaining 20 % is owned by the state and has been leased by agricultural companies [3]. Family farms are mainly inherited.

The Agricultural Census 2007 [11] is the major available information source regarding farm structure. This is the first source produced in recent years that provides data for the whole country. The previous agricultural census was carried out in 1994, but was not conducted for the whole country. The next census should be conducted over a ten-year period. Meanwhile, since the regular annual statistics do not record farm structure data, tools such as the Farm Registry may provide some useful information in the near future.

According to the latest agricultural census, there are 192,675 agricultural holdings in the country, of which 192,378 are individual agricultural holdings (family farms) and 297 are agricultural companies. The total utilized agricultural area was 334,300 ha. Family farms cultivated 264,400 ha, with an average size of the individual farm being 1.4 ha. The largest share of family farms (63 %) are smaller than 1 ha. The remaining area (69,900 ha) is used by agricultural companies, meaning that the average size of land cultivated by companies is 235 ha [11].

Certain activities in the past (legal restrictions of the land market), have contributed to the poor land consolidation process, hence the agricultural land structure has remained fragmented. Census data indicate a higher level of fragmentation in the individual sector than in the companies' sector.

Table 6-3: Distribution of farm numbers and area farmed by size classes, 2007, FYR Macedonia

	Number of farms		Agricultural area		Average size
	1,000	%	1,000 ha	%	ha/farm
Family farms	**192.4**	**100.0**	**264.4**	**100.0**	**1.4**
up to 1 ha	122.1	63.5	51.2	19.4	
1-5 ha	62.3	32.4	137.4	52.0	
5-10 ha	6.3	3.3	42.7	16.1	
10 ha or more	1.7	0.9	33.1	12.5	
Agricultural companies	**0.3**		**69.9**		**235.4**
Total	**192.7**		**334.3**		**1.7**

Source: STATE STATISTICAL OFFICE [11].

The current structure of agricultural holdings is a result of many factors, such as: historical heritage; agricultural structure; characteristics of the social, political and economic system; position and role of agriculture in the economic structure of the country; agricultural policy objectives and measures; ownership of the production means in agriculture; the geographic features of farm locations, etc. [3].

According to official statistical data [12], the largest portion of total agricultural production has been produced by family farms. Nevertheless, recent years illustrate that there has been a mild upward trend in production from agricultural companies. This has been a result of the completion of the transformation process, as well as privatization, the implementation of market-oriented production strategies and organizational strengthening.

3.4 Agricultural production and output

Crops make up the largest share of agricultural output, in recent years totaling more than 70 % on average, while most of the remaining portion belongs to animal output [10, 16]. Agricultural services are still underdeveloped, and only contribute less than 1 % to the total agricultural output.

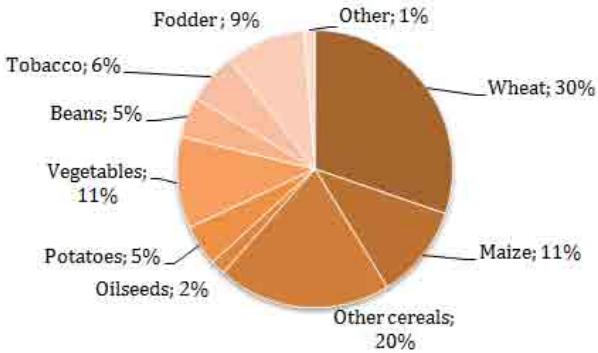
Vegetables and horticultural products make up the largest share of agricultural output (28 %) and there is a potential for further increases once the country enters the EU, since it has favorable conditions for this kind of production. Free trade is assumed to provide this sub-sector's potential an opportunity to be used effectively. Fruits and cereals contribute approximately 12 % and 10 %, respectively. Fruit output shows growth potential, whereas cereals have a declining tendency.

Cereals make up the largest share of the country's sown area, which stresses their significance in agricultural production (the largest share, 30 %, belongs to wheat).

The area under cereals shows a downward trend, which is mainly the result of a reduction in the area under wheat. Fluctuations of agricultural input prices affected cereal production, which was at its break-even point. Imported wheat can be found at lower prices than domestic production.

Vegetables seem to have both a stable production and share of agricultural output, with a slight decrease of production area. This could be the result of increased productivity in vegetable production.

Figure 6-2: Breakdown of harvested area by main crops, 2008, FYR Macedonia



Source: STATE STATISTICAL OFFICE [12].

Both fodder crops and coarse grains are important feedstuffs. Fodder production is rather stable, with the green fodder area comprising 9 % of the total sown area. The main fodder crops are alfalfa, clover, green maize and motley hay.

In 2004 the area under orchards began to decline, while fruit production started to increase in quantity. This could be explained by the growing trend of applying advanced technology, resulting in increased yields. In addition, old orchards were in poor condition and their low yields were affecting the average level of production.

There is a long tradition of grape production due to the favorable soil features and climatic conditions, as well as the ongoing interest for additional family income, especially throughout the viticulture regions. Nearly 80 % of the grape production is used as a raw material for the wine-industry. Wine represents about 7 % of the agricultural output and exports are a significant source of foreign currency income.

Roughly one-fourth of total agricultural output is from animal output [10, 16]. The dairy sub-sector contributes the largest portion (17.6 % of agricultural output in 2008), while in meat production, the pig sub-sector adds the most (4.1 % of agricultural output in 2008).

Pig production is oriented towards the domestic market, with pork contributing more than 40 % (since 2007) to total domestic meat production, making it the leading meat sub-sector. The largest share of pig production is found on family farms, which have a significantly poorer breed structure than the agricultural enterprises. The pig sub-sector seems to be fairly stable during the analyzed period, although some oscillations can be noticed both in the number of pigs and the meat production itself.

Cattle production is the second most important sector regarding meat production (in the most recent years it contributes 38 % to total meat production). However, it is the leading sub-sector in livestock production if milk production is also taken into account. The number of cattle is fairly stable, while the number of dairy cows has increased in recent years. Milk is the largest contributor to total animal output (57 % in 2008), even though the diary farm structure is mainly small-scaled, which constrains farmers from operating efficiently.

Table 6-4: Number of main livestock categories (in 1,000), 2000-2008, FYR Macedonia

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Cattle	265.0	265.3	259.0	260.0	254.8	248.2	255.4	253.8	253.5
Of which Cows	171.7	174.3	172.8	160.8	161.6	157.0	164.0	158.5	143.1
Pigs	204.1	189.3	196.2	179.1	158.2	155.8	167.1	255.1	246.9
Sheep and goats	1,250.7	1,285.1	1,233.8	1,239.3	1,432.4	1,244.0	1,332.4	944.0	949.6

Source: STATE STATISTICAL OFFICE [12, 16].

Finally, the sheep and goat sub-sector is also very important for the national economy. Lamb meat is the most significant portion for this sub-sector, since the country is a net-exporter of this commodity. The potential of this sub-sector is not fully utilized, however, as sheep production is carried out with an extensive system. This sub-sector exhibits a downtrend in the number of animals, as well as in meat production. Several factors have contributed to a decrease in the development of sheep production, among which are: a reduction in the fodder base (which especially influences the market-oriented sheep breeders); high fodder prices; low producer prices for meat, milk and wool; and the availability of shepherds.

One of the areas exhibiting low technical efficiency is milk. The average milk yield per cow (2,920 kg/cow in 2008) is significantly lower when compared with EU countries. However, the technological level of cow milk production shows steady upward development, indicating that there was an improvement in the farm

performance practices, in terms of breed composition, on-farm conditions, and feed and management practices.

Table 6-5: Average wheat and milk yields, 2000-2008, FYR Macedonia

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Common wheat (t/ha)	2.5	2.1	2.6	2.2	3.5	3. 1	3.0	2.4	3.4
Cow's milk (kg/cow)	2,413	2,159	2,156	2,204	2,433	2,313	2,572	2,966	2,920

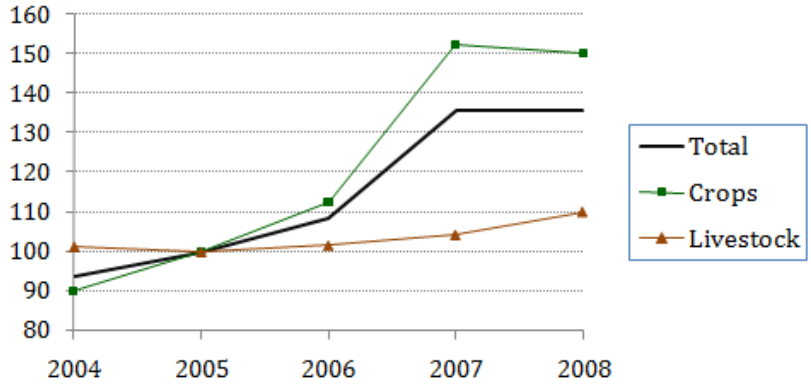
Source: STATE STATISTICAL OFFICE [12, 16].

Both the wheat and milk yields show an upward trend in recent years and have increased by more than 20 % from 2000 to 2008.

3.5 Prices and economic situation

Data on agricultural producer price indices harmonized with EU standards are available from 2004. Since 2005, the prices of agricultural products have risen significantly (in nominal and real terms) mostly due to higher output prices for crop products. Prices for animal products have been increasing throughout the observed period at a slower pace compared with crop prices, but have been steadier.

Figure 6-3: Agricultural producer price indices (deflated), 2004-2008 (2005=100), FYR Macedonia



Source: STATE STATISTICAL OFFICE [16].

Note: Calculated from nominal indices using inflation as a deflator.

The sharp increase of agricultural output prices in 2007 is related to that year's weak harvest in FYR Macedonia, its neighboring countries, and in the world's main producing and exporting countries.

Table 6-6: Producer prices of certain agricultural products (in EUR/t), 2000-2008, FYR Macedonia

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Common wheat	168.8	169.2	165.2	164.2	173.5	142.2	119.9	177.8	213.0
Corn maize	135.6	157.1	138.6	159.4	135.9	117.5	132.1	194.8	244.5
Sunflower	182.0	198.0	162.2	182.0	208.1	200.1	196.1	322.6	358.1
Potatoes	161.7	198.1	200.6	201.6	223.0	176.4	249.7	478.4	227.8
Tomatoes	366.9	305.5	269.8	125.7	22.3	363.3	422.5	554.4	573.4
Cabbage	161.2	94.2	303.1	118.6	61.0	174.7	168.0	154.1	309.5
Apples	196.1	183.7	217.2	178.8	176.5	221.1	241.1	238.3	294.5
Pears	303.7	296.9	244.7	380.9	301.6	412.0	130.7	314.5	362.0
Peaches and nectarines	222.5	275.2	275.3	334.3	156.7	262.3	278.0	261.9	324.0
Young cattle (live weight)	1,154.7	1,168.8	1,310.5	1,144.7	1,139.3	1,124.3	1,108.9	1,113.6	1,498.6
Pigs (live weight)	1,279.7	1,369.1	1,433.8	1,316.3	1,047.0	1,423.4	1,418.3	1,404.7	1,362.0
Lambs (live weight)	1,689.8	1,825.1	2,207.7	2,049.5	2,102.0	2,184.9	2,226.4	2,087.8	2,338.4
Eggs (1,000 p.)	57.8	61.9	77.5	54.9	62.8	61.5	55.6	62.3	76.9
Cow's milk	272.5	276.2	280.1	258.2	274.8	247.1	283.2	274.7	379.3

Source: STATE STATISTICAL OFFICE [12, 16].

Agricultural input prices have risen as well, however, less than farm gate output prices have. The terms of trade in agriculture thus improved significantly, with a positive implication for agricultural incomes.

Table 6-7: Agricultural output and input price indices (nominal), 2004-2008 (2005=100), FYR Macedonia

	2004	2005	2006	2007	2008
Output prices	93.4	100.0	112.1	143.0	154.9
Input prices	98.1	100.0	97.3	110.7	111.3
Terms of trade (input prices = 100)	95.1	100.0	115.2	129.2	139.2

Source: STATE STATISTICAL OFFICE [16].

Since the beginning of the 2000s, farm incomes have nominally risen approximately 45 %, but when taking into account the inflation rate, the real increase was about 30 %. At the same time, agricultural labor in full time equivalent has shown a mixed performance, but with an overall declining trend. It has thus contributed to the even more pronounced increase of agricultural income measured per agricultural work unit (AWU).

Table 6-8: Agricultural income (in EUR million, at current prices), 2000-2008, FYR Macedonia

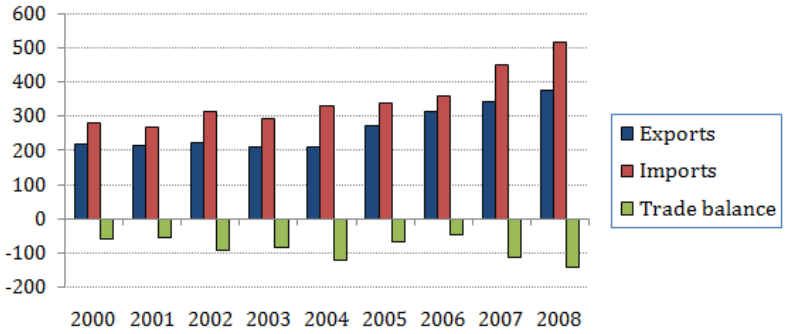
	2000	2001	2002	2003	2004	2005	2006	2007	2008
GAO at basic prices	788.2	783.8	788.5	915.4	972.3	987.8	1,037.9	1,031.0	1,225.7
Consumption of inputs	406.4	405.4	390.4	486.6	491.1	489.5	505.7	504.7	605.8
GVA at basic prices	381.8	378.4	398.1	428.7	481.2	498.2	532.3	526.3	619.9
Fixed capital consumption	35.3	35.2	35.5	42.9	42.3	42.5	44.4	44.3	52.8
NVA at basic prices	346.5	343.2	362.6	385.8	438.9	455.7	487.9	482.1	567.0
Other subsidies less other taxes on production	3.3	3.2	2.8	2.5	-0.3	-0.7	-1.0	0.2	1.9
Factor income	349.8	346.4	365.5	388.3	438.6	455.0	486.9	482.2	569.0
Agricultural labor (1,000 AWU)	137.0	198.0	138.0	126.0	107.0	123.0	112.0	119.0	130.0
Factor income/AWU (EUR)	2,553	1,750	2,648	3,082	4,099	3,699	4,347	4,053	4,377

Source: STATE STATISTICAL OFFICE [10, 16].

4 AGRICULTURAL TRADE

FYR Macedonia is a net-importer of agricultural and food products. For the entire period of analysis (2000-2008) there was an increasing negative trade balance, which reached its peak in 2008. Both agri-food imports and exports show increases in value over the last period.

Figure 6-4: Agri-food trade (in EUR million), 2000-2008, FYR Macedonia

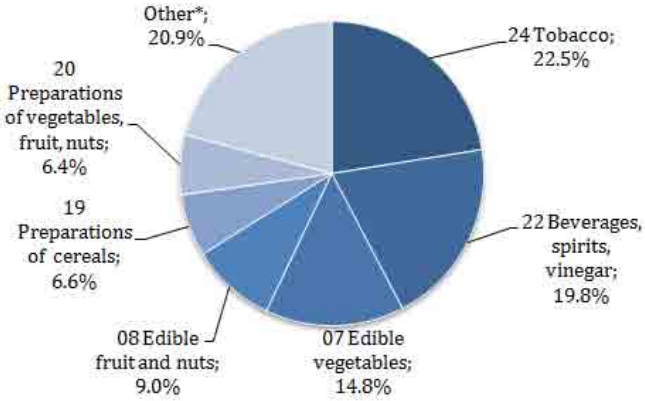


Source: STATE STATISTICAL OFFICE [17].

Note: Agri-food trade according to Combine Nomenclature of Custom Tariffs (CNCT).

The main export commodities are tobacco and tobacco products, which together represent more than 20 % of the total value of agri-food exports. Second place belongs to wine and other beverages (about 20 %). Other items that comprise large shares of agri-food exports are commodities originating from crop production, such as edible vegetables, edible fruits and nuts, and processed cereals, vegetables and fruits.

Figure 6-5: Composition of agri-food exports by main commodity group, average 2007-2008, FYR Macedonia



Source: STATE STATISTICAL OFFICE [17].

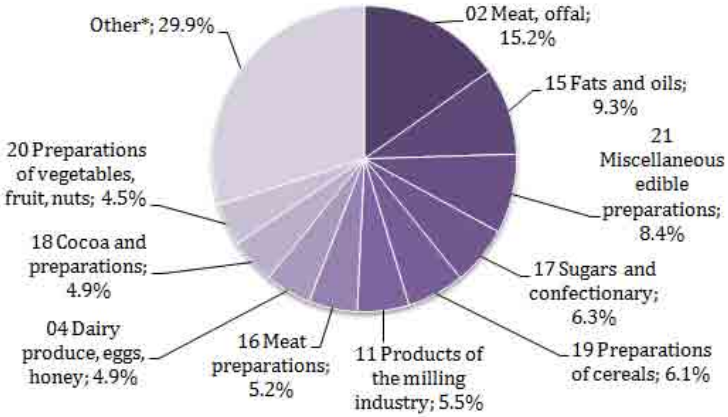
Notes: Other* – Groups of products with a share below 4.5 % each of the total.
Agri-food trade according to Combine Nomenclature of Custom Tariffs (CNCT).

Livestock contributes a slightly lower amount to agri-food exports. The main export commodity group from the livestock complex is "eat and edible meat offal" which makes up around 4 % of the total agri-food exports. Lamb meat is the most export-oriented commodity within this group, which is also very important for the whole agri-food trade. Even though milk is the most important agricultural subsector, making up the largest share in the value of animal output, the export orientation of milk and dairy products is still weak. Milk, together with the export of eggs and honey, makes up less than 2 % of the total agri-food export.

The importance of agri-food exports is noteworthy because of its share of total exports (11 % in 2008). The general trend of agri-food exports is increasing. Edible fruits and vegetables exports show an uptrend, with a large annual variation in their share of exports. Among the other important export categories, tobacco and beverages show decreasing tendencies, of 47 % and 22 %, respectively, of their levels from 2000.

The largest import group in the agri-food sector is "eat and edible meat offal" (about 15 %), where pork, beef and poultry contribute the most, though even they show decreasing tendencies. The second major import group is "animal fats and vegetable oil" representing approximately 9 % of the total agricultural imports. Dairy products make up a significant agricultural import share of around 5 %. Macedonia is becoming more and more dependent on dairy imports, resulting in a growing dairy trade deficit in recent years. Processed vegetables, fruits and nuts also have a notable share of over 4 % in the total agri-food import.

Figure 6-6: Composition of agri-food imports by main commodity group, average 2007-2008, FYR Macedonia



Source: STATE STATISTICAL OFFICE [17].

Notes: Other * – Groups of products with a share below 4.5 % each of the total.
Agri-food trade according to Combine Nomenclature of Custom Tariffs (CNCT).

To sum up, agricultural imports are mainly commodities of animal origin, while agricultural exports are mainly crop primary and processed products.

Half of Macedonian agri-food commodities are exported to the Western Balkans (among which Serbia is the leading export market), followed by the EU markets (among which Germany, Greece, Italy and Slovenia are the major export destinations, while in recent years Belgium is an increasingly desirable export destination).

FYR Macedonia also imports mostly from the region and the EU. One-third of the imports come from the region, with Serbia being the major trading partner. Other important countries, besides the Western Balkan countries, whose agri-food products penetrate into the Macedonian market, are Greece, Austria, the Netherlands, Germany, Italy and Slovenia. In recent years, the country seems to have strengthened import relations with Germany. Imports of agricultural and food products from Hungary, Bulgaria and Poland are also increasing.

5 AGRICULTURAL POLICY

5.1 Agricultural policy framework

After its independence, FYR Macedonia continued on with the agricultural policy of the former Yugoslavia, gradually changing it and developing it to its current

state in order to achieve political aspirations for both regional and EU integration. Since its independence, agricultural policy development has followed three developmental phases, just as in other transition countries [1].

The first phase, price liberalization, resulted in drastic price increases. Decreased production was also caused by a decrease in demand, resulting from the decrease of the population's relative purchasing power. While these transition changes have brought about by price changes, the further development of the country has been led by labor productivity and mainly depended on the pace, intensity and quality of the reforms implemented by the government [18].

As in most transition countries, the second phase was followed by actions taken by the government in their policy of "putting out fires". This phase was characterized by frequent changes of the *ad hoc* policies, which limit the possibilities of monitoring and evaluating the effects of the applied measures. The inability to see the effects of the applied policies has additionally been emphasized by the delayed payment of the support, but also by the characteristics of agricultural production itself – particularly farmers' behavior, which is only understood after a certain period of time.

The last phase, the consolidation of policy in both structure and size, has not yet been fulfilled. In spite of the fact that Csaki and Zuschlag [2] describe FYR Macedonia as a moderate reformer, the first signs of policy consolidation were first noticed two decades after its independence, mostly as a result of the government's ambition to move closer to EU policy in its preparations for EU integration. Due to the process of EU integration, the country has aimed to increase the capacity of the domestic economy to function within the single EU market, as well as to align with EU standards of food quality and safety. Thus, a list of strategies and operating documents has been prepared in recent years. Nevertheless, in order to declare that the FYR Macedonia has completed its transition, it needs to show results in monitoring, evaluation and the application of analysis in future policy development.

In the past, agricultural support measures were spread across a certain number of traditional products without a clear idea of the expected effects and objectives to be accomplished [4]. Dominantly social in character, these measures lacked clearly-defined criteria for applying support even when there was a deficit of successful systems for monitoring, control and impact assessment.

In 2007, the Macedonian government adopted The National Strategy for Agriculture and Rural Development (NARDS) [5], which identifies the country's long-term strategic objectives and its vision for general development as a foundation for agricultural and rural development, as well as for the formulation of future agricultural policy.

The sector's long-term strategic objectives are as follows: (i) strengthening the competitiveness of Macedonian agriculture through measures for increasing the efficiency of agricultural production, processing and the marketing of agricultural products, as well as by building effective public and private institutions; (ii) improving farm incomes; (iii) ensuring that the consumers have access to safe and healthy food; (iv) optimal usage of the limited land, forest and water resources, in accordance with the environmental requirements; (v) building rural communities through sustainable rural development.

Rural development policies are financed by national funds and by the EU (via IPARD[1]). The main general objective of the Macedonian IPARD program is to improve the competitiveness of agricultural holdings and food industry bringing them into compliance with Community standards, while ensuring sustainable environmental and socio-economic development of rural areas through increased economic activities and employment opportunities [6]. The aims are structured according to EU axes:

- Axis 1: Improvement of market efficiency and the implementation of EU standards, with three groups of measures: (i) farm investments; (ii) support for the formation of producer groups; (iii) investments in the processing and marketing of agricultural products.
- Axis 2: Preparation activities for the implementation of agro-environmental measures and strategies for the local rural development, with one group of measures: (i) activities for the environment and villages' improvement.
- Axis 3: Rural economy development, with two groups of measures: (i) development and diversification of rural economic activities; (ii) improvement and development of the rural infrastructure.
- Axis 4: Technical support, with two measures: (i) technical support, informative campaigns and publicity; (ii) professional education and training.

The Ministry of Agriculture, Fishery and Water Economy (MAFWE) is the managing authority of the IPARD program. MAFWE established the Agency for Financial Support of Agriculture and Rural Development in 2007. The agency was granted national accreditation by the National Authorizing Officer in March 2009, and in December 2009 the decision to confer the right to manage EU funds was signed. The agency, as a part of the operating structure for implementing EU funds in agriculture and rural development, will manage up to EUR 45.5 million from 2007-2011.

The projected funds for the first public announcement, which has already been made, amounted to EUR 24.3 million, of which EUR 18.2 million (75 %) are

[1] Instrument for Pre-acession Assistance, component V – Rural Development.

contributions from the EU and EUR 6.1 million (25 %) are contributions from the national budget.

According to the analysis and the IPARD plan [6], at the beginning FYR Macedonia will direct the IPARD funds towards dairy, meat, viticulture, fruit and vegetables sectors through the following three measures:

- Measure 101 – Investments in agricultural holdings for their restructuring and upgrade to EU standards (for projects in the field of vine sector, fruit sector, vegetable sector, and meat and dairy sectors).
- Measure 103 – Investments for the processing and marketing of agricultural products according to the EU standards. This measure is comprised of support for wine production, collecting centers for fruit, vegetables and raw milk, processing capacities for fruit, vegetables, milk and dairy products, and slaughtering capacities for cattle, pigs and poultry, as well as investments for the treatment of waste from the slaughtering and meat industry, and its evaluation.
- Measure 302 – Diversification and development of rural areas by supporting the creation and development of micro- and small enterprises, the craft sector and rural tourism, promoting entrepreneurship and developing economic structures.

In addition to NARDS and the rural development policy, an important contribution towards the adjustment of Macedonian legislation with EU legislation is the Law on Agriculture and Rural Development. The first Law on Agriculture and Rural Development was adopted in November 2007, and replaced with a new one in April 2010. As a basic law it created a legal framework for regulating this sector and its capability for more intensive development, comprising policy planning, market regulation measures, sector financing, dealing with institutions, the management bodies in the area, rural development, etc. Therefore, it represents both state and governmental priorities in general.

5.2 Overall budgetary outlays on agri-food policy

Another way to present agricultural policy development and its effect on agriculture is through the budget aimed at this sector, and its allocation among different measures and sectors.

Budgetary support to agriculture in FYR Macedonia was very low during the initial years of the period from 2002-2009, but since 2004, there has been a significant increase in support, especially in 2008 and 2009. In the last year (2009), this support amounted to EUR 69.5 million, which is EUR 34.5 per inhabitant [7]. If compared with the EU 15 and EU 12, the country's budgetary support is still very low, but shows an increasing tendency.

From 2002-2009, market and direct producer support measures dominated agricultural support in absolute and relative terms. On average, their participation in total budgetary support was 87 %, with variations from 74 % (2003) to 97 % (2006).

Within market and direct producer support measures, direct payments prevail. These are given as payment per area for crop production and payment per head for livestock production, and for milk and tobacco as subsidies per quantities sold. Apart from direct payments, in most years producers were also supported by input subsidies. Disaster payments were paid only in two years, 2003 and 2005, while other market interventions were not implemented during the last period.

Budgetary transfers for the implementation of structural and rural development policy instruments and measures have increased from EUR 0.3 million in 2002-2003 to EUR 11 million in 2009. However, when compared to market and direct producer support measures, funds aimed at supporting rural development are still rather low, with a share below 20 % of total budgetary support for all years in the observed period (in 2009 about 16 %).

Table 6-9: Budgetary support to agriculture (in EUR million), 2002-2009, FYR Macedonia

	2002	2003	2004	2005	2006	2007	2008	2009
Market and direct producer support measures	1.53	0.83	5.50	6.62	16.18	14.26	38.30	58.55
Direct payments to producers	1.52	0.53	1.73	6.01	16.18	13.93	37.24	56.83
Input subsidies	0.01	0.25	3.77	0.44	0.00	0.33	1.06	1.72
Disaster payments	0.00	0.05	0.00	0.17	0.00	0.00	0.00	0.00
Structural and rural development measures	0.33	0.29	0.58	0.74	0.41	1.83	4.83	10.98
Improving the competitiveness of the agricultural sector	0.33	0.29	0.58	0.73	0.33	1.83	3.93	7.67
Improving the environment and the countryside	0.00	0.00	0.00	0.01	0.08	0.00	0.90	1.08
Supporting rural economy and population	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.23
Total	**1.86**	**1.12**	**6.07**	**7.36**	**16.59**	**16.09**	**43.13**	**69.53**

Note: Own assessment based on publicly available data and internal documents of MAFWE and Ministry of Finance (compiled in APM database).

The rural development measures follow the EU concept: improvement of market efficiency and implementation of EU standards, implementation of agro-environmental measures and strategies for rural development, development of rural economies and technical support.

The measures for increasing the competitiveness of the agricultural sector dominate. These measures consist of support for pasture reconstruction and planting vines and orchards. The second most important group of measures is related to improving the environment and the countryside. This group of rural development measures

appeared during the last years of the analyzed period and has a tendency to grow in both absolute and relative terms. The third group of rural development measures, supporting diversification of the rural economy and rural infrastructure, was introduced in 2009.

According to budget projections, the major source of agricultural policy financing is the national budget. However, in the pre-accession period an important part of the rural development policy will be financed by EU IPARD funds and a smaller part will be provided by donor projects. At this stage, the possibility of financing certain measures may be given to the local communities. Funds from local communities can be used as an additional source of financing for all measures, except for direct payments and measures to stabilize the market, since it would violate the principles of a single internal market. Funds from local communities may and should be used within the EU rules defined as the upper limit of allowed participation of public funds to carry out certain projects and activities.

6 SUMMARY AND CONCLUSIONS

The overall economic performance of the FYR Macedonia has been positive, with GDP growth, low inflation and solid public finances. However, severe and widespread unemployment persists, and is one of the crucial factors behind overall poverty rates of approximately 20 %.

Agriculture remains an important sector of the national economy, contributing approximately 10 % to the GDP and 20 % to total employment. Agricultural land covers about 40 % of the country's territory, of which 40 % is arable land and 3 % is under permanent crops. The remaining part is covered by permanent grasslands. Generally, a slight trend of declining agricultural area can be noticed. A large part of Macedonia's land potential remains unused; a considerable part of arable land is left fallow and pastures are not fully exploited.

Small-scale family farms dominate the agricultural structures. Nevertheless, recent years show that there has been a mild uptrend in production from the agricultural companies. This has been a result of completing the transformation process, privatization, market-oriented production strategies, and organizational strengthening. Crop output makes up the largest share of agricultural output, over 70 %, while the remaining portion belongs to animal output.

FYR Macedonia is generally a net-importer of agricultural and food products. From 2000-2008 there was a negative trade balance with tendencies toward growth. However, the importance of agri-food exports is not insignificant. Its share of total exports is 11 % (2008), while the agri-food sector contributes 14 % to total imports. In recent years, both shares have a downward trend, which is a result of faster growth in other industries in total international trade.

Budgetary support was very low from 2002-2003. Since 2004, there has been a significant and growing trend of support. Market and direct producer support measures dominate in both absolute and relative terms, with an average participation of 87 %, which mostly consisted of direct payments per hectare of crop production and per head of livestock production, though for certain products it was also provided per output. The structural and rural development measures also exhibit an increasing tendency.

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CHAPTER 7

REVIEW OF AGRICULTURE AND AGRICULTURAL POLICY IN MONTENEGRO

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1 INTRODUCTION

Montenegro is situated in the southeast of Europe, with a surface area of approximately 13,812 km^2 and 614 km of land borders. The neighboring country in the west and partly in the north is Bosnia and Herzegovina (225 km or 36.6 % of the total land border); to the north and northeast lie Serbia and Kosovo (203 km or 33.1 %); to the southeast is Albania (172 km or 28 %); and to the southwest lies Croatia (14 km or 2.3 %). The Adriatic Sea coastline is 293.5 kilometers long.

According to the last census in 2003, 620,533 people lived in Montenegro. The population density, which averages 45 inhabitants per km^2, makes Montenegro one of the least densely populated countries in Europe. The capital city of Montenegro is Podgorica, with a population of 167,578 (2003). The historic royal capital, Cetinje, has approximately 18,600 inhabitants.

Montenegro is a multiethnic, multireligious and multicultural country. The national and ethnic structure of the country's population is: Montenegrins (43 %), Serbs (32 %), Bosnians (8 %), Albanians (5 %), Muslims (4 %) and Croats (1 %). Besides the abovementioned groups, 19 other nationalities and ethnicities live in Montenegro: the Roma, Macedonians, Slovenians, Austrians, Bulgarians, Czechs, Greeks, Italians, Jews, Hungarians, Germans, Polish, Romanians, Russians, Rosins, Slovaks, Turks, Ukrainians and Vlahs.

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According to the provisions of the Berlin Congress (1878), Montenegro was fully recognized as an independent state. Montenegro was a Princedom until 1910, when it became the Kingdom of Montenegro. The Montenegrin State and Kingdom was abolished in 1918, when the Kingdom of Serbs, Croats and Slovenes was established, which would later become the Kingdom of Yugoslavia.

In 1945, Montenegro became a National Republic, and then a Socialist Republic with state sovereignty and legitimacy as one of the six equal members of the Yugoslav Federal Republic. The introduction of democratic structures brought about the introduction of a multiparty system and the first parliamentary elections were held in 1990. In April 1991, Montenegro was declared a Republic and in 1992, Montenegro and Serbia jointly proclaimed the new Federal Republic of Yugoslavia. The Belgrade Charter, signed on 4 February 2003, proclaimed the State Union of Serbia and Montenegro.

A national referendum on sovereignty was held on 21 May 2006, when the majority of Montenegrins renewed the country's independence.

Territorially and administratively, Montenegro is divided into 21 municipalities that represent the basic units of local self-governance. Geographically, Montenegro is divided into North, Central and South Regions, which do not possess administrative, cultural nor political independence.

Regarding the EU accession process, Montenegro is a potential candidate country for becoming an EU member. The EU integration process is a very intensive one. There is a broad, positive consensus in Montenegrin society on that issue, which provides a positive framework for realizing the very demanding EU agenda (laws related to EU accession always take priority in governmental and parliamentary procedures). Montenegro signed the Stabilization and Association Agreement with the EU in October 2007, while the Interim Agreement entered into force in January 2008. Montenegro applied to become a member of the EU in 2009. After its positive acceptance, the European Commission (EC) prepared and delivered a questionnaire to the Montenegrin government in mid-2009. Now the country is in the final phase of answering the EC Questionnaire, with the expectation that candidate status will be gained by the end of 2010.

As a new country, Montenegro faces many challenges. One of the largest is to develop the appropriate institutional framework for successful integration into the EU. The current global economic crisis has also affected the Montenegrin economy, which is based mainly on tourism and services. Tourism exhibited rapid growth in 2006, 2007 and 2008, but slowed in 2009 due to the global economic crisis. This slowdown caused problems in the collection of budgetary revenues. In order to support economic development and to connect the less developed north with the central and southern regions of the country, Montenegro launched a tender to construct a new highway, which will be the largest investment ever made in the

country. However, the builder has not yet been selected primarily due to the current economic crisis.

There are many challenges for Montenegrin agriculture, two of which are crucial: to increase competitiveness; and to better integrate the segments of the food chain (primary production with processing industry and trade).

As agriculture has inherited difficulties from the past (small subsistence farming, traditional production), its structure is not favorable and productivity is at a low level. As a consequence, food sector competitiveness is one of its weakest points. In order to increase competitiveness on the EU market, new investments are needed into mechanization, equipment, buildings and market infrastructure.

Investments should be carried out with the consistent implementation of EU standards. Such an orientation would allow better vertical and horizontal integration in the food chain, and would result in the export of some commodities (wine, vegetables, certain fruits, lamb meat, medicinal herbs, bottled spring water and other commodities), and a better perception of locally produced products on the Montenegrin market.

2 MACROECONOMIC ENVIRONMENT

With a Gross Domestic Product (GDP) per capita of EUR 4,908 (2008), Montenegro is one of the less economically developed European countries. Economic development has largely been influenced by the late introduction of industrialization and political changes. As one of the least developed republics in the former Yugoslavia, Montenegro went through an accelerated process of industrialization that culminated with a high growth rate of economic development in the late 1970s and early 1980s. In the late 1980s and 1990s, stagnating economic development occurred. Economic sanctions imposed on Montenegro by the Unated Nations, war in the surrounding countries, hyperinflation, and a relatively long period of transition had an unfavorable influence on the efficiency and competitiveness of the domestic economy, and created additional problems (high share of unemployment, large number of retired people, etc.).

After a period of economic stagnation caused by political turbulence in the former Yugoslavia during the 1990s, Montenegro has experienced an economic revival. From 2000-2008, the country experienced some positive and promising trends towards creating a more stable macroeconomic environment. The real GDP growth rate in 2007 reached 10.7 %, showing the highest improvement level in the last nine years. The inflation rate fell from 24.8 % in 2000 to 2.0 % in 2006 before reaching 8.2 % in 2008. The unemployment rate has been decreased from 32.7 % to 16.4 %.

Table 7-1: Selected macroeconomic indicators (in %), 2000-2008, Montenegro

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Change in real GDP	0.9	1.1	1.9	2.5	4.4	4.2	8.6	10.7	6.9
GDP per capita (in EUR)	1,669	2,113	2,208	2,435	2,684	2,912	3,443	4,484	4,908
Inflation rate (annual average)	24.8	28.0	9.4	6.7	4.3	3.2	2.0	4.5	8.2
Unemployment rate	32.7	31.5	30.5	25.8	22.6	25.4	29.6	19.5	16.4

Source: STATISTICAL OFFICE OF MONTENEGRO [7], CENTRAL BANK OF MONTENEGRO [2].

The overall commodity exchange with foreign countries in 2008 amounted to EUR 2,471.3 million, of which exports amounted to EUR 484.7 million, while imports amounted to EUR 1,986.6 million. Commodity import coverage by export was 24.4 %. This huge unbalance also creates problems for the sustainability of the economy.

3 SITUATION OF THE AGRICULTURAL SECTOR

3.1 Importance of agriculture in the economy

Agriculture and food production still play an important role in the economic development of Montenegro. The share of agriculture, hunting and forestry (without agro industry) in total GDP is 7.5 % (2008). The share of food, beverages and tobacco in total household expenditures is relatively high, with a decreasing trend from 56.6 % in 2000 to 38.9 % in 2008.

Table 7-2: Share of agriculture in the economy (in %), 2000-2008, Montenegro

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Share of agriculture[1] in GDP (current prices)	12.4	11.5	11.5	10.5	9.8	9.0	8.4	7.2	7.5
Share of agriculture in total employment	:	:	:	:	:	:	:	:	:
Share of agri-food exports[2] in total goods' exports	:	:	19.9	18.0	19.0	14.5	11.1	13.6	10.8
Share of agri-food imports[2] in total goods' imports	:	:	6.9	5.2	25.5	20.2	15.2	16.1	17.8

Source: STATISTICAL OFFICE OF MONTENEGRO [7]; CENTRAL BANK OF MONTENEGRO [2].

Notes: [1] Agriculture together with forestry and hunting.
[2] Agri-food trade according to Combine Nomenclature of Custom Tariffs (CNCT).

The place that agriculture occupies in the economy is hard to evaluate due to problems with the sector's statistics. For example, statistics monitor employment in agricultural enterprises, but not in family agricultural households, which dominate Montenegrin agriculture. In spite of the lack of the reliable data, it is obvious that

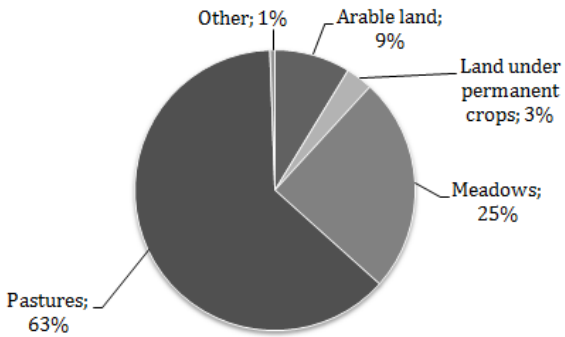
there have been considerable changes in labor force structure caused by the constant migrations of the population from rural to urban areas.

3.2 Natural conditions and land use

The agricultural area in Montenegro covers 37.5 % of the country's total surface area (2008). Agricultural land resources, with a total area of 516,487 ha or about 0.83 ha per capita, represent an important economic attribute to the country. According to this indicator, Montenegro is among the leading countries in Europe. Only Ireland has a larger agricultural area per capita in the EU (1.10 ha), while the EU 25 average is 0.36 ha (2003). In general, the agricultural area is not adequately exploited. This is the consequence of the highly emphasized orography and geological composition, which determines the dominance of low production-value soil.

Arable land occupy only 9 % (44,957 ha), while the share of pastures (62 %) and natural meadows (25 %) together comprise approximately 88 % (453,120 ha) of Montenegro's total agricultural area.

Figure 7-1: Agricultural land use, 2008, Montenegro



Source: STATISTICAL OFFICE OF MONTENEGRO [7].

Regarding irrigation, 2,650 ha are regularly irrigated in the plain area close to Podgorica, including the 2,000 hectare vineyard of AD Plantaze. The drainage system is 1,640 hectares.

There have been no important changes in total agricultural area in Montenegro over the last 9 years. If we consider urbanization, the construction of various industrial buildings and infrastructural facilities in river valleys and coastal areas, and especially in the vicinity of settlements, as well as all other space changes (due to the expansion of woodlands onto pastures and meadows, and erosion degradation), statistical data on agricultural land became overestimated. Certain changes in agricultural area become apparent when examining data according to categories. Total arable land fell by 10 % from 2000 to 2008, while the area of permanent

crops and meadows has grown (both by approximately 6 %). These are unfavorable trends if we bear in mind the low share of fertile land (arable land) in Montenegro.

3.3 Farm structure

Information on farm structure in Montenegro is very limited. Agriculture structure is mainly monitored via the Population, Flats and Households Census, which is carried out each ten years. The most recent census was carried out in 2003, and gathered data on the labor force, the use of land and the number of livestock. However, only about one-quarter of all agricultural land recorded in the land cadastre (136,558 ha out of 517,000 ha) was captured, indicating that a large number of agricultural land owners were not covered by the Census.

Table 7-3: Distribution of family farm numbers and area farmed by size classes, 2003, Montenegro

	Family farms		Agricultural area		Average size
	Number	**%**	**ha**	**%**	**ha/farm**
Up to 2 ha	28,572	66.1	23,305	17.1	
2 to 5 ha	8,563	19.8	29,406	21.5	
5 to 10 ha	3,762	8.7	27,948	20.5	
10 to 20 ha	1,652	3.8	23,981	17.6	
20 ha or more	659	1.5	31,918	23.4	
Total	**43,208**	**100.0**	**136,558**	**100.0**	**3.2**

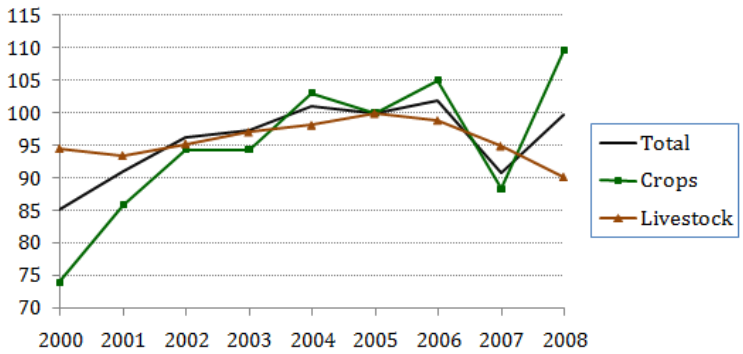
Source: STATISTICAL OFFICE OF MONTENEGRO [7].

The only way to obtain a more precise picture on farm structure is to conduct an agricultural census with special attention to the coverage and punctuality of field work. An agricultural census was to be carried out in June 2010.

3.4 Agricultural production and output

Statistical data registers no downward trend in production after the political changes of the late-1980s and early 1990s, which was characteristic of other transition countries. From 2000-2006, the growth of total production was evidenced. Major growth in that period occurred in crop production, while livestock production showed significantly smaller but stable growth. Due to a severe draught in 2007, there was a drop in production, which recovered in 2008 for plant production but not for livestock production.

Figure 7-2: Agricultural production volume indices, 2000-2008 (2005=100), Montenegro



Source: STATISTICAL OFFICE OF MONTENEGRO [7].

Major crop sectors in Montenegro are vegetable production, grapes, potato, fruits and olive growing, while cereals are at very low levels in terms of area covered (which is specific for Montenegrin agriculture, even compared with neighboring countries).

Vineyards cover 4,300 ha, with an increasing trend in recent years, resulting in 10 % more vine trees. At 70 %, autochthonous varieties prevail in total number of vine trees, mainly for the production of red wine (*Vranac* and *Kratosija*), while table grape varieties contribute only 10 %.

The area under fruit cultivation increased from 2001-2008 by 20 %, mainly in the last three years. In terms of number of trees, plums carry the largest share (42 %) with a decreasing trend, while the number of apples (16 %) and tangerines (12 %) has been increasing. Total annual production reaches 30,000 tons of fresh fruits; of this, oranges and tangerines together contribute 23 %, plum 19 % and apples 17 %.

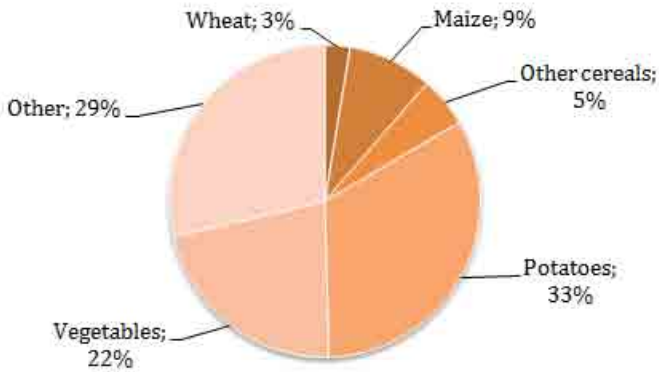
Olive growing occupies 3,200 ha. The total number of olive trees is 418,000, of which 70 % are grown in the traditional way. In terms of variety, more than 90 % belongs to the autochthonous *Zutica*. The production potential of approximately 2,000 tons olive oil is exploited by only 50 %. There has been a positive trend in the last 4 years, which resulted in an increase in the number of olive trees by 1.5 %.

The total area used for vegetable production amounted to 7,912 ha in 2008, of which cabbage and kale (24 %), melons (24 %), tomato (12 %) and peppers (10 %) are the leading commodities. Using more productive varieties and improving growing technology contributed to an increase of production by 16 % from 2000-2008. Vegetable production in greenhouses is done on 60 ha with positive results in terms of volume, range of products and extension of the growing season.

Potato production is a very important sector and shows an increasing trend from 2000-2008. On a stable 10,000 ha, total production doubled during this time.

Cereals are grown on an area of 5,000 ha, which is 40 % less than the area cultivated 8 years prior. The highest share of this area (53 %) is used for corn-maize production.

Figure 7-3: Breakdown of harvested area by main crops, 2008, Montenegro



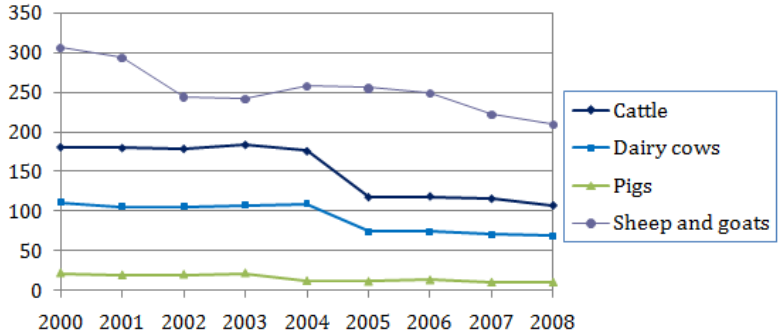
Source: STATISTICAL OFFICE OF MONTENEGRO [7].

The Montenegrin livestock sector is dominated by the rearing of ruminants, which is primarily due to the high percentage of meadows and pastures. Regarding size of the population by species of livestock, a general downward trend has been noticed in recent years. There are several reasons for this: structural problems still exist; depopulation of rural areas is ongoing; changes in statistical methodology in 2005 resulted in some break in data series[1].

A cattle breeding is the largest sub-sector in livestock production. Total cattle population amounts to 106,000 head, while cows and heifers contribute 73 %. Annual milk production is 160,000 t and meat is approximately 7,500 t. Cattle production is present at the majority of agricultural holdings, and dual purpose production prevails. Only 15-20 % of total milk production is delivered to dairies. The rest is used in households: a significant part goes to fattening calves, while the rest is used for making dairy products used either for family consumption or for selling directly to the market.

[1] In 2005, Statistical office of Montenegro changed the sample frame for livestock surveys. Livestock surveys based on new sample gave different results compared to the previous one.

Figure 7-4: Number of main livestock categories (in 1,000), 2000-2008, Montenegro



Source: STATISTICAL OFFICE OF MONTENEGRO [7].

The average farm size is about 3 breeding heads. According to data on subsidies, the number of farms with more than 3 animals is 4,400, which altogether rear 27,500 animals. Only 3 % of cows are in a regular milk recording scheme, with an insemination density of 40 % [1].

The sheep breeding sector is characterized by semi-extensive production based on the rearing of local breeds (*Pivska*, *Sjenicka* and others) used for milk and meat, while wool has a negligible economic value. Sheep breeding is most present in rural areas that face the problem of an out-migrating, vital workforce. The annual volume of output is about 3,500 t of meat and 7,000 t of milk.

Goat breeding is also an important sector, especially in the karst region. In 2009 there were 392 flocks of more than 10 animals each, with a total of 19,826 animals. It is estimated that the total number is close to 40,000 breeding animals.

Poultry production is characterized by significant changes that occurred in recent years, ranging from the creation of numerous family farms for egg production, the expansion of broiler production, to the founding of slaughterhouses and processing capacities for that sector.

Pig production in Montenegro is a weak sector, primarily due to limited domestic production of animal feed. According to official statistics [7], there are slightly more than 2,000 breeding animals (sows and boars). Pig fattening is mainly performed on family households for their own consumption.

The general technological level of agricultural production in Montenegro is still low, resulting in low average yields.

Table 7-4: Average wheat and milk yields, 2000-2008, Montenegro

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Common wheat (t/ha)	2.0	2.8	3.4	3.0	3.0	3.1	3.1	2.5	3.5
Cow's milk (kg/cow)	1,697	1,807	1,875	1,729	1,620	2,403	2,348	2,381	2,278

Source: STATISTICAL OFFICE OF MONTENEGRO [7].

The average yield per cow is very low at less than 2,500 kg. The main reason is a lack of modernization on the farm level in the widest sense. Subsistence farming with a small number of cows per farm prevails; small farms are not motivated to improve their level of production or introduce new technology. The majority of farmers produce milk in the less favored hilly-mountain areas. In addition, the breed structure is not favorable, since around 50 % of the Montenegrin cow herd belongs to the lower productive crosses. A relatively small part of the population is included in a regular milk recording scheme (around 3 %), which achieved a much higher milk yield [1]. In 2008, the average milk yield in standard lactation (305 days) was 5,114 kg, which is more than double the population's average.

One of the structural characteristics of Montenegrin food production is a low level of finalization of agricultural products, a significant share of the rural population supplying itself with food, as well as significant sales of agri-food products through unregistered trade channels. In spite of the positive results being achieved in certain sectors in recent years (meat industry and wine production), the agri-food industry is still weak and cannot be considered a driving force for faster development of primary production. In addition, the sector has an unfavorable size structure of enterprises. About 70 % of enterprises employ less than 15 workers and only four enterprises employ more than 250 [3]. Such a size structure of enterprises and the unfavorable technical level influence competitiveness of the agri-food industry negatively.

3.5 Agricultural prices

Agricultural price statistics are relatively scarce. Statistical Office gathers information on output prices for a small batch of agricultural products only. Agricultural output prices are actually purchase prices of agricultural products bought from individual producers with a view to further sale and processing.

The Agricultural Market Information System (AMIS) has been maintained since 2005 for a limited number of agricultural products. Prices are collected on a weekly basis, mainly for fresh vegetables and fruits, and for some categories of livestock.

It is difficult to draw conclusions on agricultural output prices since data for some years are missing. From data presented in the table below, it is evident that potato prices, notwithstanding oscillations in certain years, had a positive trend from 2001-2008. The same can be said for milk, while the price for lambs decreased from 2001-2004, then slightly increased from 2005-2008.

Table 7-5: Producer prices of certain agricultural products (in EUR/t), 2001-2008, Montenegro

	2001	2002	2003	2004	2005	2006	2007	2008
Potatoes	273	182	350	260	:	300	330	340
Tomatoes	478	298	620	600	:	840	760	790
Apples	513	682	580	650	:	750	650	660
Peaches	828	740	1,000	920	:	1,150	1,050	1,080
Young cattle (live weight)	:	:	:	:	1,720	1,650	1,770	1,730
Lambs (live weight)	2,369	2,332	2,080	1,830	2,000	2,050	2,150	2,280
Eggs (1.000 pieces)	70	70	70	70	80	90	100	97
Cow's milk	281.6	281.6	291.3	291.3	301.0	310.7	310.7	311.0

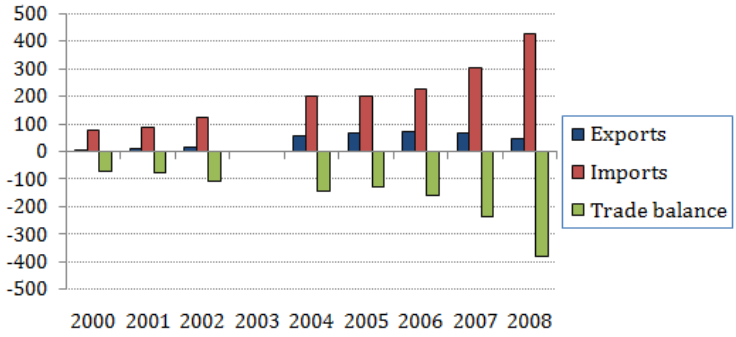
Source: STATISTICAL OFFICE OF MONTENEGRO [7], AMIS [5].

There is no data on agricultural input prices. Official statistics do not compile Economic Accounts of Agriculture and no other data on agricultural output and income is available.

4 AGRICULTURAL TRADE

Montenegro is a net importer of food products, and its high dependency on food imports is shown in the share of agricultural products in total imports, which exceeds twice their share in exports. The agri-food trade is continually growing, thus imports have significantly increased in recent years, while exports have declined in the last three years. As a consequence of those trends, the import deficit is also growing.

Figure 7-5: Agri-food trade (in EUR million), 2000-2008, Montenegro



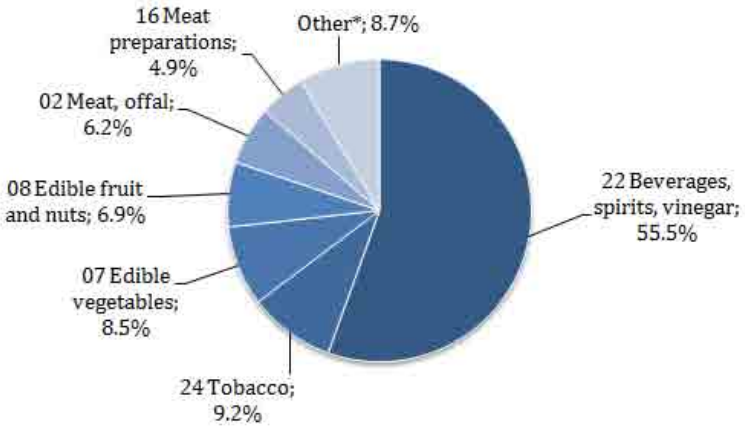
Source: STATISTICAL OFFICE OF MONTENEGRO [7].

Note: Agri-food trade according to Combine Nomenclature of Custom Tariffs (CNCT).

The export value of agri-food products in 2008 amounted to EUR 46.7 million. More than half of this value (EUR 25.9 million, or 55.5 %) comes from one group of products – beverages. Amongst beverages, the most important is wine (EUR 17.2 million, or 66 %). Other relevant export products are tobacco (EUR 4.3 million); vegetables

(EUR 4.0 million); fruits (EUR 3.2 million); meat (EUR 2.9 million), and meat preparations (EUR 2.3 million).

Figure 7-6: Composition of agri-food exports by main commodity group, 2008, Montenegro



Source: STATISTICAL OFFICE OF MONTENEGRO [7].

Notes: Other* – Groups of products with a share below 4.5 % each of the total.
Agri-food trade according to Combine Nomenclature of Custom Tariffs (CNCT).

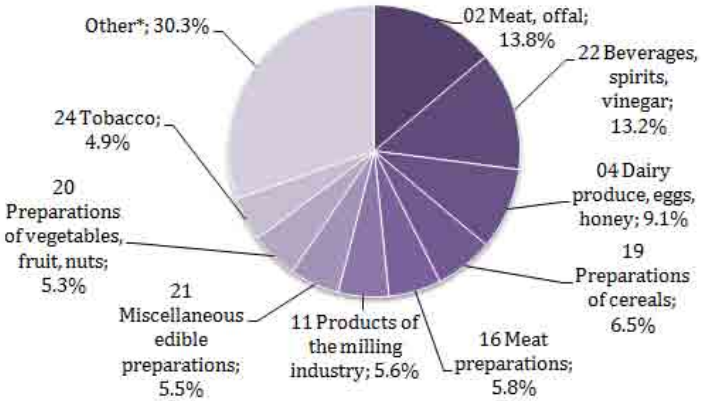
The breakdown of total imports, valued at EUR 426 million in 2008, shows that major tariff groups include meat (EUR 58.9 million); beverages (EUR 56.3 million); dairy produce (EUR 38.7 million); cereal preparations (EUR 27.6 million); processed meat (EUR 24.9 million) and products of the milling industry (EUR 23.6 million).

Montenegro's balance in the foreign trade of agri-food products is negative for all groups of agri-food products.

As far as exporting/importing destinations are concerned, Montenegro's most important market is CEFTA2 countries (80 % of the total agri-food exports and 70 % of the total agri-food imports). Among CEFTA members, Serbia is the main import and export partner, contributing 56.7 % to total imports (or 81 % to imports from CEFTA countries), and 43.5 % in exports (or 54 % of exports to CEFTA countries).

[2] Central Europe Free Trade Agreement.

Figure 7-7: Composition of agri-food imports by main commodity group, 2008, Montenegro



Source: STATISTICAL OFFICE OF MONTENEGRO [7]

Notes: Other * – Groups of products with a share below 4.5 % each of the total.
Agri-food trade according to Combine Nomenclature of Custom Tariffs (CNCT).

The general conclusion is that Montenegro is highly dependent on imports, with a significant dispersion of imported product assortments. Analysis of the foreign market sends a clear signal to domestic agri-food producers to work on the re-structuring of production and to create conditions that will lead to diminishing deficits. The relatively small number of exported products emphasizes the problem of domestic product competitiveness, considering the quality, price competitiveness and potential quantities that may be distributed outside Montenegro.

5 AGRICULTURAL POLICY

5.1 Agricultural policy framework

The transition process that Montenegro's economy passed through in the last two decades also affected the agricultural sector. The most important changes were: introduction of market principles, elimination of state interventions, removing a concept of agricultural policy focused on development of the social sector; change in agriculture development support towards family farms and improvement of living conditions in rural areas; adjusting the foreign trade policy to the needs of agriculture and processing industry with its gradual harmonization of World Trade Organization (WTO) principles; introduction of technological innovations into production, upgrading professional and educational level of producers and expert services in agriculture; and strengthening institutional support to the agricultural sector by establishing new services and laboratories and modernization old ones.

In spite of significant efforts that had been made, there was no consistent agricultural policy until the new strategy was adopted in 2006. The new strategic document, Montenegro's Agriculture and the European Union – The Food Production and Rural Development Strategy, was a turning point in agricultural reform.

The abovementioned strategy provides a platform for the harmonization of agricultural policy, legislation and institutional support to agriculture with the principles and requirements of the EU association process [3]. With the new strategy, Montenegro opted for the concept of sustainable agricultural development, which implies establishing a full balance between economic development, environmental protection and social considerations. The developmental concept begins from the multiple role of agriculture or its multifunctionality, which places agriculture into a much broader context than its importance regarding its contribution to GDP.

The strategy defines the following developmental objectives: (i) sustainable resource management; (ii) stable and acceptable supply of safe food; (iii) ensuring an adequate standard of living for the rural population; and (iv) increased competitiveness for food producers.

In the agricultural policy that the strategy pursues, rural development measures occupy the most important role and they target the three main directions: (i) increase in competitiveness; (ii) sustainable resource management; and (iii) ensuring the quality of life and diversification of economic activities in the countryside.

The strategy provides a framework for further restructuring and building a modern role of the state, which should enable harmonization with the EU.

The most important outcome of what the strategy foresaw is the National Program for Food Production and Rural Development (National Program), adopted in November 2008.

The National Program outlines objectives, its strategic and legal framework and the conceptual starting points for domestic agricultural policy, as well as its harmonization with the requirements of the Common Agricultural Policy (CAP) and the EU model for support in agriculture [4]. In essence, the National Program is an operational document for harmonizing Montenegrin agricultural policy with the EU's CAP. Thus, it defines and designs agricultural policy measures, sorted out by policy pillars. The agricultural policy measures are described in detail. Every measure consists of the basic elements necessary for its implementation. A five-year financial plan is presented, as created by policy measure groups, and the plan for each measure with financial sources is defined as well. It provides indicative figures, and it is also a framework for donor support.

The reform principles followed in preparation of the National Program are: (i) to have a clear vision; (ii) to provide a positive legal framework for development, with applicable solutions and harmonized with the EU *Acquis*; and (iii) to follow the EU model of development, but fully respect Montenegrin specificities.

The Law on Agriculture and Rural Development, adopted in mid-2009[3], is the main legal document for agricultural policy. Among other issues, the law addresses the following: development of agriculture and rural areas; aims and objectives of agricultural policy; support measures in agriculture and eligibility criteria for their use; beneficiaries, additional agricultural activities; organizational forms in agriculture; public services in agriculture; the foundation of a paying agency in agriculture; registration and evidence; and other important points regarding agriculture and rural development.

In essence, the law takes over the aims and the agricultural policy of the strategy and gives them the necessary legal shape. The importance of agricultural policy is reflected by the fact that the chapter on agricultural policy measures is explained in detail, where the whole agricultural policy is sorted into four main groups: market-price policy, rural development policy, support for general services in agriculture, and social transfers to the rural population.

The most important form of support in the market-price policy is direct payments (based on area or per head), which is in accordance with the principles of the WTO; this concept follows the newest CAP reforms.

A very important place in agricultural policy is occupied by the rural development policy, which is executed through four basic groups of measures.

The first group (axis) is directed to strengthening the competitiveness of food producers through support in investments in primary production and processing industries, followed by investments for executing land policy, and support for introducing international standards and organizations of the producers. The law, with respect to the newest EU regulations, sets up and defines support in investments very broadly – investments through which abundant financial support to development is enabled, especially during the pre-accession period when it is needed to implement numerous standards and raise the competitiveness of domestic production.

The second group (axis) refers to the sustainable management of resources, where support for the development of areas with limited possibilities for agriculture and agro-environmental measures are anticipated. The third group (axis) contains measures for supporting the quality of life in rural areas and diversifying economic activities in rural areas.

The fourth group (axis) of measures for rural development should stimulate and support local communities and local groups in creating and implementing their strategies and development projects.

The third component of agricultural policy refers to financial support for general agricultural services that are of public interest: extension services, animal and plant breeding and other expert work in livestock and plant production, research policy,

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[3] Official Gazette of Montenegro, No. 56/09.

analytical infrastructure and education in agriculture, along with rules defined on the basis of the support to public interest that could be realized.

The fourth component of the agricultural policy refers to social transfers to agricultural households.

5.2 Agricultural policy instruments and measures

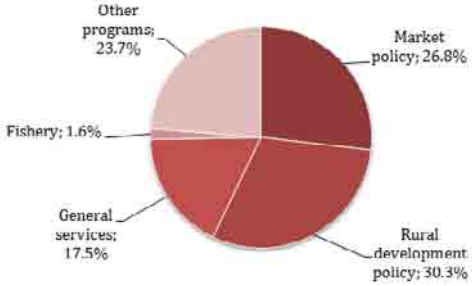
The Montenegrin economy is generally very open, meaning that it does not implement any other barrier to imports except custom tariffs. In the context of CEFTA, the trade of agri-food products is fully liberalized with Serbia, Bosnia and Herzegovina and FYR Macedonia, while with Croatia and Albania trade is not fully liberalized for a few commodities. In trade with the EU 27, an Interim Agreement has been implemented since January 2008, which foresees the gradual liberalization of the Montenegrin market in 5 years for the majority of agri-food products, while for more sensitive products (meat and processed meat products, dairy products, vegetables and fruits produced in Montenegro, olive oil, wine) a gradual liberalization from current levels to the 50 % of MFN-level was agreed. In WTO negotiations, Montenegro committed itself to further reduce custom tariffs, keeping the ceiling of bound rates of custom tariffs at a maximum of 50 %, while the average for all 24 groups of agri-food products is about 12 %.

Montenegro does not implement any kind of export subsidies or price controls in the agri-food sector.

Bearing in mind the aforementioned issues, and the fact that the majority of imports come from CEFTA members, it can be concluded that most support for agriculture comes from budgetary allocations.

Since the agro-budget for 2009 was prepared for the first time in accordance to the National Program, and reflected to the greatest extent possible what was foreseen by this program, the main pillars of the agricultural policy are presented by using this budgetary year.

Figure 7-8: Structure of budget for agriculture, 2009, Montenegro



Source: MINISTRY OF AGRICULTURE, FORESTRY AND WATER MANAGEMENT [4].

5.2.1 Market and producer support policy measures

Direct payments by far play the main role in market and producer support policy, representing more than 80 % of the budgetary allocations in this pillar. The market intervention program and the risk management share is 14 %, while it makes up only 3.8 % of total budgetary allocations.

Direct payments group consists of 6 measures implemented in crop and livestock sector.

Direct support to crop production is implemented per hectare of cultivated land for basic arable crops: cereals, potatoes, forage plants (plants for silage production, annual and perennial fodder crops, grass-legume mixtures and lucerne), buckwheat and other crops (aside from tobacco). Direct payments are also allocated to seed production for the aforementioned crops. The minimum surface for support production of individual crops is 0.5 hectares. Different types of crops cannot be added together to meet this minimum. One farm can apply for support for each individual qualifying crop. The basic amount of subsidy per hectare of crops produced for commercial purposes or feed production is EUR 130, while for seed production the amount is EUR 600.

Support to tobacco production is provided through payment per kg of dried tobacco, depending on the quality class, from EUR 0.20 to EUR 0.55 per kg of tobacco produced and delivered to the registered processors.

Direct support to livestock production is provided through headage payments for ruminants:

- Payments for breeding cattle – all farms rearing more than 3 head of cattle are eligible for support for heifers and cows, where premiums apply only to animals above the minimum number, up to a maximum of 50 head. This criterion is fulfilled if a farm keeps this number of heads for a minimum of six months. Animals have to be properly ear tagged and registered in the national database run by the Veterinary Administration. The basic premium per head for heifers and cows is EUR 80.
- Payment for breeding sheep is EUR 10 per head, only for animals above the threshold of 20 up to a maximum of 300 head per flock.
- Payment for breeding goats is also EUR 10 per head, only for animals above the threshold of 10 up to a maximum of 300 head per flock.
- A slaughter premium is allocated for fattened young beef (EUR 120 per head), and for culled cows (EUR 40 per animal), with the condition that animals have to be properly ear tagged and registered in the database and slaughtered in approved slaughterhouses. A maximum of 90 heads per year per farm are eligible for the premium.

Support to dairy production for the market is EUR 0.035 per liter of milk delivered to the approved dairy. The eligibility condition for the premium is that the quantity of milk delivered per farm is a minimum 200 liters per month. Due to problems in the milk sector, an additional premium of EUR 0.02 per liter of milk was allocated in 2009.

Support for strengthening the milk collection network and *Support for collecting and slaughtering cattle* are directed to the processing sectors, which aim at improving market infrastructure for the collection of raw material from the farmers. The basis for the payments is liters of milk collected and number of animals slaughtered.

5.2.2 Rural development policy measures

Rural development policy plays a very important role in the new Montenegrin agricultural policy. This is primarily because of the specificities of the agricultural sector and rural areas. The absence of the commercial production of cereals and the very low competitiveness of agriculture, coupled with the vast majority of mountainous areas in the northern part of the country threatened by the abandonment of a vital labor force, has resulted in an agricultural policy focused on rural development and providing different services to the agricultural sector.

Since gradual harmonization of the agricultural policy with the CAP is of priority, the National Program designed the rural development policy in accordance with the new rural development policy in the EU (Community Strategic Guidelines 2007-2013), meaning that measures are grouped in the so-called axes. It should be mentioned that the National Program foresaw the fourth axis, i.e., Leader projects. However, implementation has not yet started. Also, one of the main measures in axis 2 will be support to Less Favored Areas (LFA); its introduction was foreseen for 2013.

The first group (axis) contains the largest number of measures (11 of 17) and contributes the highest amount (71 %) of the total budget for rural development policy, or 21.5 % of the total agro-budget for 2009. The axis is directed at strengthening the competitiveness of food producers by supporting the investments in primary production and processing industries, support for the introduction of international standards and producer organizations.

Eligible investments for support in the primary sector are: investments in various kinds of agricultural equipment and mechanization; investments in livestock farms (construction of new barns and the renovation of old ones, including purchasing of breeding animals; investments in setting-up perennial crop plantations (fruit sector, olive growing and vine growing) and investments in the construction and equipping of greenhouses.

In the processing industry, activities that are eligible for support are: investments in processing animal products (dairies, slaughterhouses and meat industry); investments in storage, packing and processing plant products and investments in processsing agricultural products on family holdings.

The above investments are generally 30 % co-financed from public sources. The National Program foresaw additional possibilities: if a farmer is young, or if investment is made in LFA, support can go up to 40 %. If both of these criteria are met, co-financing can reach 50 %.

The second group (axis) refers to the sustainable management of resources, where three measures are implemented. The measure *Sustainable use of mountain pastures* has the biggest share at more than 60 %, while the remaining 40 % is directed to supporting the preservation of genetic resources and organic farming. This axis has a small share of rural development policy, only 10 %, or 3.2 % of the total agro-budget. This is due to the fact that LFA has not yet been implemented, and the other measures are in the developmental phase.

Each of these measures are practically direct compensatory payments. The measure *Preservation of genetic resources in agriculture* refers to payments per livestock unit or per hectare for the conservation of autochthonous breeds and plant varieties in production (based on the action plan for preservation and sustainable use of genetic resources in agriculture). *Organic farming payments* mean payment per hectare for plant production and per livestock unit in animal husbandry (conditions set according to legislation). The measure *Sustainable use of mountain pastures* refers to payments per livestock unit grazed on mountain pastures.

The third group (axis) consists of two measures: *Diversification of economic activities in rural areas,* and *Revitalization and development of rural areas and construction of rural infrastructure.* The first measure, which refers to supporting new employment in non-agricultural sectors, has just been introduced; that is why the amount is very modest (7 %). The second measure is related to co-financing projects in rural areas: local roads, water management, facilities of common importance. This measure has been implemented for many years, with significant participation in the total agro-budget: 93 % in axis 3, or 17 % in rural development policy.

5.2.3 General services

The third component or pillar of the agricultural policy refers to financial support for general services in agriculture that are of public interest. These measures support programs on education, research and development, analytical activities, extension services, a program on veterinary and phyto-sanitary measures, and activities and programs related to the control of product quality.

These programs and activities chiefly contribute to: providing the production of safe food; increasing the education level and qualifications of producers; introducing

new technologies, etc. The measures relate to programs and activities that, because of public interest, cannot rely solely on private initiatives.

This pillar consists of 8 measures, in which the *Operational Program for Animal Health Protection* has the highest share, 54 %, or more than 9 % of the total agro-budget.

5.2.4 Social transfers to the rural population

In addition to the programs and measures already presented and described, Montenegro has been implementing the so-called fourth pillar of agricultural policy, which means a kind of social policy in rural society. Social transfers to the rural population (*Old age allowance program*) in the form of pensions follow the aim of securing an adequate living standard in rural areas; because of its interdependency with agricultural households, it also follows the aim of sustainably managing natural resources. By providing social support to holdings lacking other sources of income, this measure contributes to decreasing poverty in rural areas and raising the quality of life in villages, which is one of the priorities of the third axis of the rural development policy. The pensions are provided to the holders of family households (one member is eligible per household) and contribute significantly to the total agro-budget (15 %).

5.3 Overall budgetary outlays on agri-food policy

Budgetary support to agriculture has been increasing, but slower than the growth of the total budget in Montenegro. The agricultural budget structure from 2001-2006 shows that all three main pillars, market and direct producer support measures, rural development policy and general services in agriculture, varied from year to year. The volatility of basic groups of measures indicates that a significant part was not settled appropriately. Since 2007, after the adoption of the new strategy, all of the pillars have shown a steady increase. However, regarding individual measures of the budget for 2007 and 2008, it can be concluded that the majority of measures in each pillar still included elements of various policy pillars. It is mainly because of the sector approach used, for example, only one measure for olive growing was implemented, which consisted of elements from all three pillars.

The adoption of the National Program in 2008 was a turning point in designing individual measures in all pillars of the agricultural policy. The majority of the measures are clearly defined in terms of objectives, description and implementation. Rural development policy measures are sorted out in the axes.

Table 7-6: Budgetary support to agriculture (in EUR million), 2001-2009, Montenegro

	2001	2002	2003	2004	2005	2006	2007	2008	2009
Market and direct producer support measures	**2.4**	**0.9**	**3.0**	**3.0**	**2.8**	**3.5**	**4.2**	**4.9**	**5.2**
Market support measures	0.0	0.0	0.6	0.4	0.1	0.1	0.4	0.3	0.5
Export subsidies	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Market intervention	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.4*	*0.3*	*0.3*
Other	*0.0*	*0.0*	*0.6*	*0.4*	*0.1*	*0.1*	*0.0*	*0.0*	*0.2*
Direct producer support measures	2.4	0.9	2.4	2.6	2.6	3.3	3.7	4.1	4.5
Direct payments to producers	*1.7*	*0.6*	*1.3*	*1.4*	*1.5*	*2.0*	*2.4*	*2.7*	*3.4*
Based on output (price aids)	0.9	0.1	0.6	0.6	0.7	0.8	0.9	0.7	1.4
Based on current area/animal	0.8	0.6	0.7	0.7	0.8	1.2	1.6	1.9	2.0
Input subsidies	*0.6*	*0.2*	*1.1*	*1.2*	*1.1*	*1.2*	*1.2*	*1.4*	*1.1*
Other direct payments	*0.0*	*0.0*	*0.1*	*0.1*	*0.1*	*0.1*	*0.2*	*0.5*	*0.2*
Structural and rural development policy measures	**1.9**	**1.6**	**1.3**	**1.3**	**1.0**	**2.3**	**3.1**	**4.4**	**5.9**
Improving the competitiveness of the agricultural sector	1.1	0.8	0.5	0.6	0.5	1.6	2.1	3.0	4.4
Improving the environment and the countryside	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.5
Supporting rural economy and population	0.8	0.8	0.8	0.8	0.6	0.7	1.0	1.2	1.1
General measures related to agriculture	**1.9**	**1.7**	**1.6**	**1.8**	**2.0**	**2.1**	**2.7**	**3.8**	**3.9**
Total budgetary support to agriculture	**6.2**	**4.2**	**5.9**	**6.2**	**5.8**	**7.9**	**10.1**	**13.0**	**15.0**

Note: Own assessment based on publicly available data of Ministry of Agriculture, Forestry and Water Management [6] (compiled in APM database).

Except for the mentioned schemes and types of budgetary support for the agricultural sector, Montenegro has not applied any other kind of support such as interest rate subsidies on bank loans. Besides national funds, over the last decade Montenegrin agriculture and rural areas were significantly supported by donor funds.

EU support through the European Agency for Reconstruction was overtaken by the EC Delegation in Podgorica, and remains the most significant source of support, while the other forms of donor support were very important as well. These projects have had many purposes: certain components were directed towards agriculture and rural development, while others were on food safety issues or capacity building in agriculture. Generally, a major task of donor projects is technical support.

The main donor projects in the agricultural sector, recently finished or still being implemented are: Development and Implementation of an Animal Identification System (EU CARDS project and IPA 2007, finished in 2008); Technical Assistance to the Fishery Sector in Montenegro (EU CARDS project); Milk Enterprise Development in Northeast Montenegro (donated by Luxembourg); Promotion of

the Private Sector and Employment: wine sector and meat industry (GTZ); Support to strengthening the administrative capacity of MAFWM (in cooperation with the USDA); Project of agricultural reform in Montenegro (World Bank credit and grants; implementation begun in 2009); Development of Food Safety Services in Montenegro; Support for Establishing IPA Rural Development Programming and Implementation System in Montenegro (EU IPA 2008; begun in 2010); Organic agriculture in Montenegro – joint support to small producers in organic agriculture (FAO project); Organic Agriculture Development Program (donated by Denmark); Stimulating the Development of Tourism and Agriculture in the northern region and better connecting the two industries (USAID, underway).

Realizing these projects allowed the government a certain flexibility to allocate more national funds towards direct payments. The projects have supported institutional building and thus the implementation of agricultural policy.

6 SUMMARY AND CONCLUSIONS

Montenegrin agriculture is characterized by a relatively low level of competitiveness. This is a consequence of the existing unfavorable structure (small family farms prevail), low technical level of agricultural production, etc. In order to increase the competitiveness of agriculture, its sub-sectors require more intensive investment support. Without good access to commercial banking and without appropriate grant support provided from public sources, it will be difficult to provide for the development of the food sector and to implement very demanding EU standards.

Unexploited potentials result in Montenegro being a net importer of food. Montenegro does not fully use its production potential. In crop production, the production of wine (the most important export product) is commercially significant, as is vegetable production (tradition and favorable conditions), and partially potatoes (only for domestic consumption).

A significant part of Montenegrin agricultural production output is generated from livestock production, within which the most significant products are milk and the production of lamb with traditional breeds. In beef production, the most important category are calves. In the last few years, poultry production has being commercialized, while the production of pork is used mostly for self-subsistence. The only export potential for now is found in lamb production.

Total trade in agri-food products exhibits continuous growth. However, along with the increase in imports and exports, the deficit grows as well.

The situation regarding existing data and their reliability is generally not at a satisfactory level, despite efforts which have already been put towards improving the total performance of Statistical Office of Montenegro. In some aspects, like in trade data, the situation now is much better than it was in the past. However,

price statistics, food balances, and economic indicators in agriculture are still missing or inconsistent. In order to provide a baseline situation, carrying out the agricultural census is the first step. This will help future steps in the EU accession process, as well as with further harmonization of the agricultural policy with the CAP.

Montenegro has already undergone significant changes in the process of reforming agricultural policy at the level of creating a legal framework and formulating strategic guidelines. The agricultural policy of Montenegro, including its aims, measures, structure, and its share of rural development policy, are positively assessed from abroad. That approach was recognized and positively evaluated by EC authorities, as well.

Two main challenges remain: to build up the implementation structure; and to provide appropriate budgetary allocation to support the agricultural sector in accordance to the National Program. The weakest point in agricultural policy is the implementation infrastructure. The current administrative system is able to implement previously described measures since a small number of criteria is implemented. In order to implement cross compliance, rules similar to CAP requirements require much more human resources.

Budgetary support should have an upward trend, as was foreseen by the National Program. There is a real threat that economic crisis, and consequently limitations in the budget, would not follow the financial plan of the National Program. The agro-budget for 2010 does not follow National Program projection; it is at the level of 2009 or even lower for some measures.

The ongoing World Bank project and EC IPA twinning project, both aiming at helping Ministry of Agriculture, Forestry and Water Manageent to build up appropriate structures for implementing new agricultural policy, should help to strengthen the institutional framework for the implementation of direct payments and rural development policy in which compensatory allowances (axis 2 of rural development) should play a significant role.

Through the mentioned project (WB and IPA), TAIEX and the other forms of trainings provided by the EC, the administration would have the possibility of acquiring knowledge on CAP and its reforms. However, the university should include an EU CAP dimension in its education programs, as well. The local level also needs to be more intensively included in humane capacity building. In order to increase public awareness, the communication strategy has to be permanently implemented in a visible and efficient way.

The general economic situation will be closely interlinked with the further development of agriculture as a very important sector of the Montenegrin economy. If the global economic crisis continues and has serious negative consequences on the Montenegrin economy, it will certainly affect agriculture as well. In that scenario, it will be extremely difficult to provide a positive framework for the sustainable development of agriculture and to continue with the positive trends of recent years.

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CHAPTER 8

REVIEW OF AGRICULTURE AND AGRICULTURAL POLICY IN SERBIA

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1 INTRODUCTION

Serbia[1] is located on the Balkan Peninsula, in Southeastern Europe on the Pannonian Plain. The country is landlocked, although access to the Adriatic Sea is available through Montenegro, and the Danube River provides shipping access to inland Europe and the Black Sea. Serbia covers a total of 77,474 km², and has 4,720 settlements, of which 187 are urban.

Serbia's terrain ranges from rich, fertile plains in the northern Vojvodina region, to limestone ranges and basins in the east, and, in the southeast, to ancient mountains and hills. In Central Serbia, the terrain consists chiefly of hills and low and medium-high mountains that are interspersed with numerous rivers and creeks. Four mountain systems meet in Serbia: the Dinaric Alps in the west cover the greatest territory, and stretch from the northwest to southeast. Apart from the Danube, the chief rivers are its tributaries the Sava, Tisa, Drina and Morava. Serbia's climate is moderate continental with diversity on the local level caused by geographic location, relief, terrain, the presence of river and lake systems, vegetation, urbanization, etc.

According to the most recent National Population Census (2002), Serbia has 7.498 million inhabitants [13]. From 1991-2002, the population decreased by 1 % (in rural areas by 3.65 %). The average population density is 97 inhabitants/km^2 (289 inhabitants/km^2 in urban areas and 63 inhabitants/km^2 in rural areas). The

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[1] The data in this report relates to the territory of the Republic of Serbia without the territory of Kosovo (EULEX).

areas in the east of the country, especially the southeastern parts towards the border with Bulgaria and FYR Macedonia, are sparsely populated with a markedly negative demographic balance [1]. The Serbian population is under a permanent aging trend; statistical data show that the average Serbian citizen is 42 years old, and the fertility rate is among the lowest in Europe.

In the early 1990s the large, multi-ethnic Socialist Federal Republic of Yugoslavia (SFRY) was dissolved; Slovenia, Croatia, the FYR Macedonia and Bosnia and Herzegovina declared their independence and were recognized as independent states in 1992. The remaining republics of Serbia and Montenegro declared a new Federal Republic of Yugoslavia (FRY) in April 1992. At the beginning of the 2000s, the Serbian and Montenegrin components of the FRY sought a looser relationship, which in 2003 resulted in a loose state union of the two republics called Serbia and Montenegro, which replaced the former FRY. This loose state union came to an end in 2006, when Montenegrins voted for independence. Serbia formally declared independence on 5 June 2006.

The Serbian economy experienced a significant decline in the 1990s. Although the country entered the decade being relatively well integrated with the world economy and with a higher standard of living than that in many other transition economies, the Serbian economy was devastated as a result of armed conflicts, international sanctions, and trade shocks stemming from the dissolution of the SFRY during the 1990s. This, coupled with economic mismanagement, resulted in hyperinflation and a virtual collapse of the economy. A stabilization program introduced in January 1994 ended the hyperinflation and laid the foundations for a constant increase in gross domestic product (GDP) and financial stability between 1994 and 1998. In 1998-99, the war in Kosovo provoked an international response, which in 1999 led to the intervention of NATO in Serbia.

The period from 2001 to 2008 in Serbia was characterized by the implementation of a number of reforms aimed at establishing macroeconomic stability and sustainnable and stable economic development. In this period, the process of restructuring large systems and the privatization of publicly-owned companies was accomplished (or initiated) and activities related to European Union (EU) accession were intensified. Production activity in that period took place along with reforms to the tax system, labor market and social sector. Also during this period, the exchange rate (excluding 2005) was stable, the foreign currency reserves in the country permanently increased, deregulation and the liberalization of prices and foreign trade were carried out, and relations with international financial institutions were regulated. Significant advances were achieved in the implementation of structural reforms, especially regarding the privatization of companies and the consolidation and privatization of the devastated banking sector.

Serbia became a potential candidate for EU membership following the Thessaloniki European Council of June 2003. On 29 April 2008 Serbia signed the Stabilisation

and Association Agreement (SAA) and the Interim Trade Agreement with the EU. Serbia has started unilaterally to implement the Interim Trade Agreement, as implementation from the EU side remains blocked because of Serbia's perceived lack of full cooperation with the International Criminal Tribunal for the former Yugoslavia in The Hague. Nevertheless, the EU Interior and Justice Ministers officially vote on the European Commission visa proposal of 15 July 2009. The council decided to abolish the visa requirement for Serbian citizens beginning 19 December 2009. Negotiations on membership in the World Trade Organization (WTO), which began in 2005, are at an advanced stage.

The current financial crisis has exposed Serbia to economic uncertainty, primarily because of its large current account deficit [6]. Serbia also suffers from high levels of unemployment and poverty. A key prerequisite for establishing and maintaining macroeconomic stability in the long run is structural change, primarily the completion of the privatization process and the process of restructuring large public companies initiating bankruptcy where privatization has failed.

2 MACROECONOMIC ENVIRONMENT

Since 2000, Serbia's economy has been recovering from conflict and isolation in the 1990s. From 2001 to 2008, Serbia implemented economic reforms that have resulted in the increase of GDP, a gradual reduction of the high inflation rate, employment growth and in increase of foreign direct investments. During this period, the average annual growth of GDP reached 5.4 %, and GDP per capita increased from EUR 1,709 in 2001 to EUR 4,547 in 2008.

In 2007 and 2008, for the first time in decades, there were positive signals in the labor market. The unemployment rate of approximately 21 % was reduced to 18.1 % in 2007 and to 13.6 % in 2008. The extremely high unemployment rate is an issue of major concern both from the economic and social standpoint. This has largely been the result of privatization and the necessary restructuring of the old, overcrowded and inefficient large state-owned companies. This situation has been exacerbated by the inherent inflexibility of the Serbian labor market: part-time jobs account for only 7 % of the total, and temporary work only 13 %, respectively. The high unemployment rate can also be attributed to the important role of the informal economy in Serbia [1].

Table 8-1: Selected macroeconomic indicators (in %), 2000-2008, Serbia

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Change in real GDP	5.3	5.6	3.9	2.4	8.3	5.6	5.2	6.9	5.5
Inflation rate (annual average)	70.0	91.8	19.5	11.7	10.1	16.5	12.7	6.8	10.9
Unemployment rate (LFS)	12.1	12.2	13.3	14.6	18.5	20.8	20.9	18.1	13.6

Source: STATISTICAL OFFICE OF THE REPUBLIC OF SERBIA [14].

The inflation rate was within the targeted inflation limits for the entire period, and in 2008 it was 10.9 %, which represents significant progress relative to the beginning of decade. Food is still highly represented in the structure of Serbian household expenditures, accounting for over 45 % (including beverages and tobacco).

3 SITUATION OF THE AGRICULTURAL SECTOR

3.1 Importance of agriculture in the economy

Agriculture's contribution to the Serbian economy is as broad as it is deep, and its importance for Serbia's national economy and social stability is extremely high. During the transition period the share of primary agricultural production in GDP was reduced in comparison with the 1990s, so that in 2008 it accounted for 9.1 %. The share of the food, beverage and tobacco industry in GDP accounted for 5.5 % on average, and also exhibits a trend of permanent decrease.

Agriculture employs a high share of the total labor force in Serbia. The main reason for the high reliance on agriculture is certainly the reduced employment opportunities, the fact that agriculture absorbed labor surplus from other sectors of economy that have already undergone reforms, and the low investment activity in the country.

Table 8-2: Share of agriculture in the economy (in %), 2000-2008, Serbia

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Share of agriculture[1] in GDP (current prices)	19.0	19.3	14.4	12.7	13.2	11.5	10.6	8.7	9.1
Share of agriculture[1] in total employment	:	:	:	:	23.9	23.2	20.5	20.8	21.4
Share of agri-food exports[2] in total goods' exports	19.0	18.3	25.3	20.9	22.2	20.3	19.4	18.9	18.0
Share of agri-food imports[2] in total goods' imports	8.6	10.7	9.8	8.8	8.0	7.4	6.9	6.1	6.5

Source: STATISTICAL OFFICE OF THE REPUBLIC OF SERBIA [14].

Notes: [1] Agriculture together with forestry, hunting and fishery.
[2] Agri-food trade according to Combine Nomenclature of Custom Tariffs (CNCT).

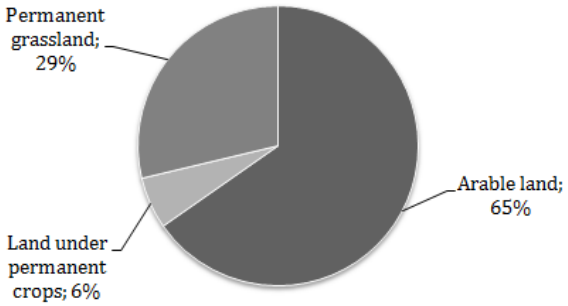
Compared to other sectors of the Serbian economy, the agri-food sector plays a very prominent role in overall trade. Since 2005, Serbia has been a net exporter of agri-food products, with an increasing trade surplus. The agri-food sector accounts for some 20 % of total exports. The main export commodities are cereals, raw and processed fruit and refined sugar. The agri-food sector accounts for approximately 7 % of total Serbian imports.

3.2 Natural conditions and land use

Thanks to the relief and climate conditions in the territory it covers, Serbia has favorable natural conditions for diversified agricultural production. The share of agricultural land in total territory is 66 %, which is high compared with many European countries.

Agricultural land in Serbia covers about 5.1 million hectares (0.69 ha per capita), of which approximately 3.3 million hectares (65 %) is arable land (0.45 ha per capita). Regarding its suitability for agricultural production (soil fertility), Serbia's soil potential is divided into eight fertility classes, where the first four classes represent better soils (45 % of total agricultural land), and classes 5-8 include the areas mainly unsuitable for tillage. However, a large part of the arable land is acidulated as a result of the uncontrolled use of chemical agents, and in Vojvodina (the most developed part of the country in terms of agriculture) it is also saline, which reduces yield and raises production costs. The share of irrigated arable land in total arable land is low (approximately 1.5 %), whereas about 85 % of agricultural land is endangered by wind and water erosion [2].

Figure 8-1: Agricultural land use, 2008, Serbia



Source: STATISTICAL OFFICE OF THE REPUBLIC OF SERBIA [14].

In general, agricultural land use in Serbia is stable, and there have been no significant changes in the past ten years. The only significant change was a decrease in the permanent crops area by approximately 5 %, which was mostly due to vineyards. The area under cultivation by vineyards is falling primarily due to the low competitiveness of this sector.

Serbia has no accurate records relating to agricultural area. Cadastral records[2] are not updated and the Land Cadastre does not contain data on current rights to real estate (it is not an ownership registry). Serbia is in the process of transforming from an analogue to a digital cadastral register (sponsored by the World Bank and other donors). The digital Real Estate Cadastre should solve numerous problems (archiving, maintenance, distribution of the data), and contribute to a more reliable, efficient and comprehensive database on land use.

3.3 Farm structure

Serbia's farm structure is very complex, consisting of small subsistence agricultural households, small semi-subsistence farms, large family farms, as well as privatized large enterprises with a mixed ownership structure.

Private farmers own approximately 80 % of the 5.1 million hectares of Serbian agricultural land. The remaining 20 % of farmland is utilized by many entities, which vary with regard to ownership and farm size. The lack of clear ownership rights for a significant part of the land is a hindrance to the proper operation of the land market, although land tenure in Serbia is overwhelmingly private. However, today the majority of public property, which originates from land confiscated from former proprietors, fiscal and legal entities, remains in state ownership [5]. In 2005, the Ministry of Agriculture, Forestry and Water Management (MAFWM) adopted a regulation according to which all state-owned land should be tendered for rent[3]. A survey conducted on a nationally representative sample showed that the number of farm operators who lease land and the size of the leased area were increasing [3].

The trend of family farms transforming into large commercial farms and strengthening the dual agrarian structure was seen in farms in Vojvodina, especially in the areas with a marked tendency towards an aging population. The land market in this part of the country is active; leasing prevails over land purchases. The central part of the country, which is an area nearby big cities, with a larger agricultural population and mixed economies, is dominated by small holdings.

Analysis of the changes in land structure and market has been hampered due to the lack of reliable data. For example, the Agricultural Census includes only private family farms, while there are no records of agricultural enterprise structures. In addition, in the period between the two censuses, there was no other survey conducted by the Bureau of Statistics to update farm structure information.

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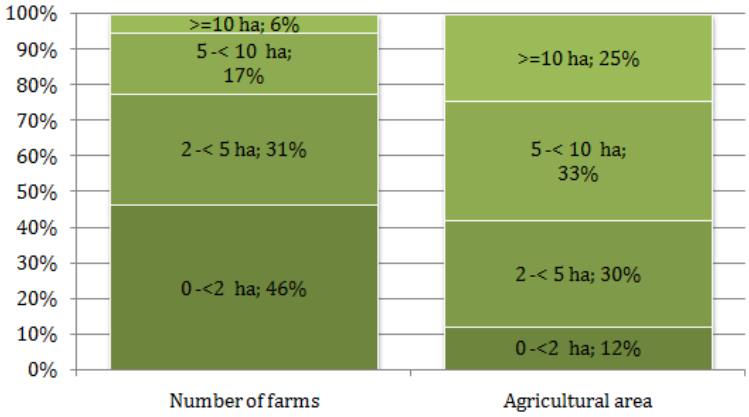
[2] Today, the Cadastre System and Ownership Records in Serbia are held in either the new Real Estate Cadastre, a unified registry comprising both factual and legal data of real properties, or in the older records of the Land Cadastre and Land Book (Register of titles), or in the Title Deed Book (or "deed book") when no other register exists.

[3] According to estimates, 350,000 to 380,000 ha of agricultural land is state-owned.

According to the 2002 Census, there are about 778,900 private farms in Serbia, with an average size of 3.7 ha. Furthermore, land is fragmented in 4 plots per farm, on average. According to the 2002 Census, over 75 % of private farms comprise less than 5 hectares and only about 6 % exceed 10 hectares.

Figure 8-2: Distribution of family farm numbers and area farmed by farm size classes, 2002, Serbia



Source: STATISTICAL OFFICE OF THE REPUBLIC OF SERBIA [13].

The share of family farms in total market production has been increasing, and reached 52 % in 2008. Family farms have a particularly high share in the market of fruits, vegetables, milk and wheat. At the regional level, the proportion of family farms in market production is somewhat lower in Vojvodina, which has the greatest concentration of large agricultural enterprises.

The next Agricultural Census is planned for November 2011, and will cover all agricultural holdings. A pilot survey that was conducted in December 2009 aimed at calibrating the questionnaire and refining the quality of the data collection process. Technical assistance to the statistical office in the preparation phase is assured through the IPA Project[4]. The Census Law was adopted by the Serbian Parliament in December 2009, but the success of the Agricultural Census will depend on funding provisions in the State budget.

3.4 Agricultural production and output

By the early 1980s Serbia experienced significant growth in agricultural production (3.5 % to 4 %), which stagnated in the late 1980s and declined sharply in the 1990s. Extremely unfavorable production and economic indicators for Serbian

[4] IPA 2007 EuropeAid/126969/C/SER/YU.

agriculture in the 1990s were reflected in the marked fluctuation and negative trend in the production of almost all agricultural products, as well as in low labor productivity and a low level of market production [4].

The period of 2000-2008 was characterized by a substantial annual fluctuation of agricultural production, mostly influenced by weather conditions. Generally, a slight upward trend can be noticed, but agricultural production remained lower than in the pre-transition period. About two-thirs of the value of agricultural production comes from crop production, and one-third from animal production, without a pronounced tendency of change during the observed period.

The economic transformation process affected the livestock sector more than the crop sector. The negative trend in livestock production slowed down at the beginning of this decade only to continue its decline after 2005.

Figure 8-3: Agricultural production volume indices, 2000-2009 (2005=100), Serbia

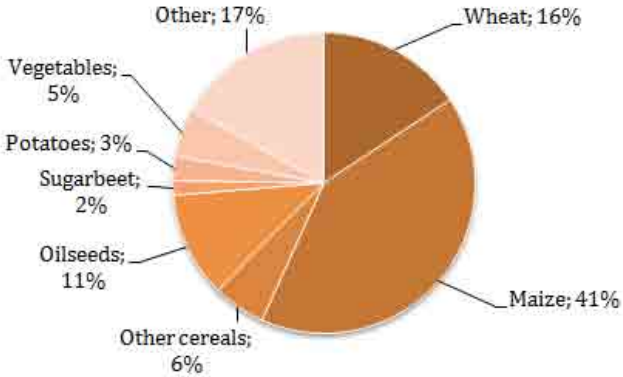
Source: STATISTICAL OFFICE OF THE REPUBLIC OF SERBIA [15].

Note: 2009: Provisional data.

Cereals, particularly maize and wheat, hold the dominant position in agriculture. The area under cereal cultivation accounts for about 60 % of arable land, with a slightly decreasing trend in recent years. The reduction of the area under cereal cultivation is a result of farmers' lowered interest in the production of wheat, which was extremely uncompetitive compared to other crops. However, cereal production still accounts for about 30 % of Serbia's gross agricultural output (GAO).

Industrial crop production accounts for 7 % of the total GAO. The area sown with industrial crops has recorded permanent growth since 2000. The opening of foreign markets, budgetary support, export subsidies and the privatization of processing capacities all contributed to a rapid revitalization of industrial crop production after the crisis in the 1990s. More than in other segments of the Serbian food chain, this sector has set up trade chains, which also reflects positively on the growth of both area and production.

Figure 8-4: Breakdown of harvested area by main crops, 2008, Serbia



Source: STATISTICAL OFFICE OF THE REPUBLIC OF SERBIA [14].

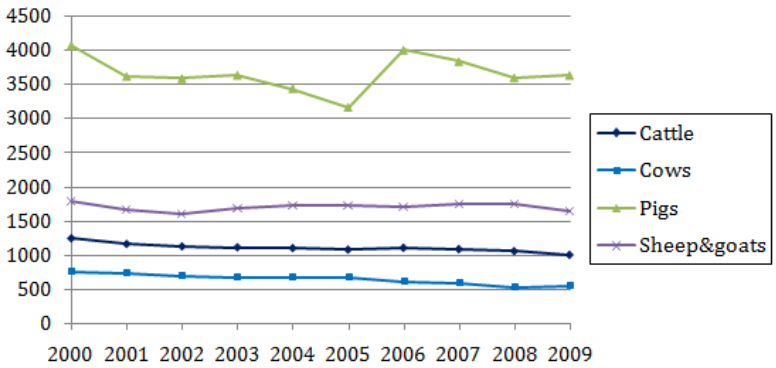
The production of fruits and vegetables accounts for approximately 18 % of the value of agricultural output and has recorded positive trends in recent years. Fruits and vegetables occupy about 8 % of Serbian agricultural land and are predominantly cultivated on private holdings in Central Serbia (about 99 %). Significant progress has been made in this sector regarding the improvement of standards in production and processing and the strengthening of production linking. Serbia has good climatic conditions for growing many varieties of fruits. Over recent years, thanks to favorable credit conditions for purchasing irrigation systems and building green houses, production has been significantly intensified.

The number of farm animals in Serbia has decreased significantly since the 1990s (by more than 30 %). The main reasons for the reduction of livestock production were the decline in consumption due to the worsening economic situation and the inability to export during the period of United Nations sanctions[5]. Production has fallen even more than livestock numbers due to the additional difficulty of providing adequate feed and veterinary care.

Pork production avoided the worst depression, though there has been some fluctuation particularly due to high feed prices in some years. The pig sector is the most important within livestock production, and its participation in the total GAO is approximately 13 %.

[5] UN Security Council Resolution 757, from November 22, 1992 to June 18, 1996.

Figure 8-5: Number of main livestock categories (in 1,000), 2000-2009, Serbia



Source: STATISTICAL OFFICE OF THE REPUBLIC OF SERBIA [15].

Note: 2009: Provisional data.

A cattle rearing is also a significant sector (milk about 9 % of GAO, meat about 7 % of GAO). Both the number of cows and milk production have been decreasing rapidly after 2005, while beef production has remained fairly stable. The data shows a clear upward trend in the production of poultry, sheep and goat meat, but these sectors still represent only about 2 % of GAO each.

Average yields in Serbian agriculture are under steady growth, but are still at a relatively low level[6].

Table 8-3: Average wheat and milk yields, 2000-2008, Serbia

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Common wheat (t/ha)	3.0	3.7	3.2	2.2	4.3	3.6	3.5	3.3	4.3
Sunflower (t/ha)	1.5	1.9	1.9	1.8	2.3	1.8	2.0	1.9	2.4
Soybean (t/ha)	2.1	2.2	2.3	2.4	2.4	2.5	2.6	2.6	3.0
Cow's milk (kg/cow)	2,151	2,240	2,352	2,419	2,409	2,473	2,628	2,650	2,976

Source: STATISTICAL OFFICE OF THE REPUBLIC OF SERBIA [14].

The reason behind this is an increasing technical and technological backwardness and the lack of technical and technological innovations, which lead to the reduced use of mineral fertilizers, means of protection, inadequate feeding of livestock and failure to meet agro-technical requirements. High yields, at the level of European yields, are recorded only in the production of industrial crops (primarily sunflower and soybean).

[6] Only two times in the last decade has the wheat yield, for example, exceeded 4 t/ha. During the 1980s the yield was as high as 5 t/ha. Also, undeclared seed is used in production and the use of fertilizers is reduced to one-third of the optimum amount [9].

3.5 Prices and economic situation

Prices of agricultural and food products during the 1990s were formed under the pressure of inflation, monetary disturbances, frequent changes in their administrative control and support measures. Agricultural prices were also influenced by the monopoly position of the domestic processors in the conditions of economic isolation of the country, high import protection, the presence of a gray economy, subsistence exchange and compensatory payments that were widespread in the condition of hyperinflation.

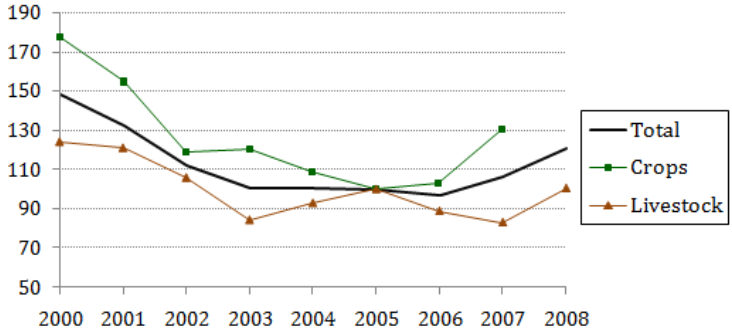
After the political reforms of 2001, the terms of trade have improved. The most significant impacts on price stabilization and the economic status of producers are reflected in lowering the inflation rate and exchange rate stabilization. Reform-minded governments have opted for the liberalization of the agricultural markets. Direct price control no longer exists; however, market intervention still remains.

The government intervened on several occasions (in the years affected by natural disasters) with the emergency purchase of wheat by the Directorate for Commodity Reserves, which banned the export of cereals and industrial plants. The emergency import of vegetable oil, flour and meat was also undertaken in cases where it was estimated that prices on the domestic market had been unreasonably raised (as a result of the monopolistic position of the processors).

The input market was liberalized by the new customs law. In addition, until 2004 the government intervened in the input market by selling fertilizers and animal feed at favorable prices.

The opening of the agricultural markets was reflected by the general downward trend of agricultural output prices (in real terms). Only in recent years (2007 and 2008) have levels of agricultural producer prices risen, influenced mostly by the worldwide rise in field crops' (cereals, oilseeds) output prices.

Figure 8-6: Agricultural producer price indices (deflated), 2000-2008 (2005=100), Serbia



Source: STATISTICAL OFFICE OF THE REPUBLIC OF SERBIA [14].

Note: Calculated from nominal indices using inflation as a deflator.

During the analyzed period, individual agricultural product prices varied signify-cantly, mostly due to changes on the domestic and international markets (good or bad harvest, export possibilities).

Table 8-4: Producer prices of certain agricultural products (EUR/t), 2001-2008, Serbia

	2001	2002	2003	2004	2005	2006	2007	2008
Common wheat	123.4	112.6	126.6	99.3	91.8	108.6	143.7	185.8
Corn maize	130.7	89.3	105.7	103.1	75.0	89.5	156.6	120.1
Sunflower	197.7	198.3	184.7	160.5	174.1	178.0	315.4	285.3
Sugar beet	30.7	30.6	27.8	26.2	24.8	27.7	29.9	32.6
Potatoes	133.2	105.5	164.0	107.5	90.1	145.1	160.8	208.0
Tomatoes	206.1	182.9	215.5	267.5	395.1	312.5	569.1	265.0
Cabbage	122.8	133.3	110.7	81.0	213.0	146.7	208.5	190.2
Apples	234.1	351.7	242.5	220.1	273.7	271.4	372.1	466.5
Pears	291.5	358.8	324.3	276.7	191.2	354.6	469.2	487.7
Peaches	267.5	301.1	246.4	216.9	216.3	233.5	316.9	206.6
Young cattle (live weight)	:	:	:	:	1,505.1	1,613.7	1,552.2	1,730.1
Pork (live weight)	1,319.9	1,247.5	966.6	1,154.9	1,272.5	1,084.8	1,046.3	1,474.2
Lambs (live weight)	:	:	:	:	1,795.7	2,057.4	1,986.1	1,956.5
Eggs (1,000 pieces)	46.1	58.2	45.3	50.2	52.9	46.3	60.7	90.7
Cow's milk	187.5	180.0	172.6	178.4	174.2	184.0	231.7	280.9

Source: STATISTICAL OFFICE OF THE REPUBLIC OF SERBIA [14].

Note: Prices are calculated as weighted unit values from data on quantities and values of purchased products.

The lack of long-term market stabilization measures and budgetary resources, institutional disorder and the inconsistency of support measures further contributed to unstable parities and trends. The variations of absolute prices in Euros were also pronounced due to the exchange rate, which generally did not follow inflation.

No official statistics on agricultural input prices exist in Serbia. Research, however, shows that the input prices' growth from 2005-2009 was faster than the agricultural product prices, and that despite the nominal price growth, the economic status of producers remained relatively unfavorable (with the exception of 2007-2008) [9].

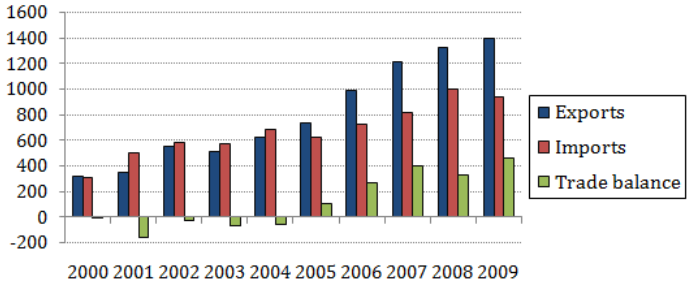
Labor productivity (GVA/employed in agriculture7) indicates a permanent increase in productivity from 3,226 EUR per employee in 2004, to 4,604 EUR per employee in 2008. However, productivity in the sector was lower compared to the rest of the economy and grew slower than the economy as a whole.

[7] International Labour Organization (ILO) definition of employment.

4 AGRICULTURAL TRADE

Foreign trade of agricultural and food products from Serbia during the 1990s took place in the conditions of disturbed macro-economic stability. This instability was the result of political and economic disturbances and of losing privileged status in export markets (status of the most privileged nation – WTO, preferential status in the EU and termination of a number of bilateral and multilateral agreements).

Figure 8-7: Agri-food trade (in EUR million), 2000-2009, Serbia



Source: STATISTICAL OFFICE OF THE REPUBLIC OF SERBIA [16].

Notes: Agri-food trade according to Combine Nomenclature of Custom Tariffs (CNCT). 2009 provisional data.

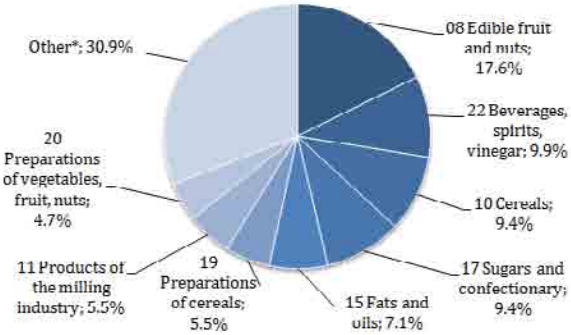
In the 2000s, the foreign trade balance of the Serbian agro-industrial sector has been improving. Thanks to more dynamic rates of export growth compared to import growth, the negative trade balance has decreased, and since 2005 the balance has been positive, including the trade balance with the EU. In 2008, the average unit value of exports[8] in the Serbian agriculture and food industry was 0.53 EUR/kg, while in imports the unit value was 1.07 EUR/kg. This indicates a less favorable structure for exports, dominated by raw materials and intermediate products.

The group of products most present in agri-food exports is edible fruits and nuts. The most important commodity within this sub-sector is berry fruits, with an established presence in EU markets due to its high quality and competitive price. As most Serbian berry fruits are currently exported in bulk, there is a potential to further add value to what is already a high-value commodity.

The other leading Serbian export commodities include cereals and preparations, sugar and sugar products, edible oils, etc. While not fully competitive with major Central European exporters such as Hungary, Serbian cereals are nevertheless competitive in neighboring countries.

[8] Unit value of product is the value of export/import, expressed in relation to a specific unit of measure (most often kg).

Figure 8-8: Composition of agri-food exports by main commodity group, average 2007-2008, Serbia



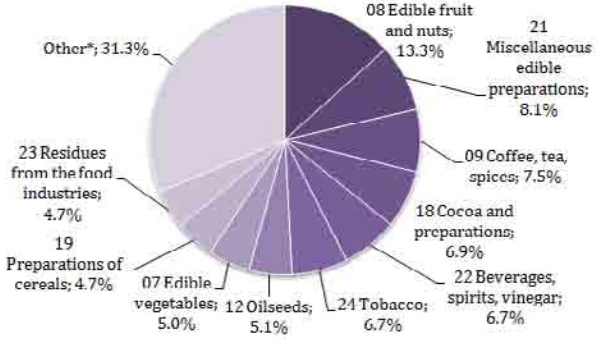
Source: STATISTICAL OFFICE OF THE REPUBLIC OF SERBIA [16].

Notes: Other * – Groups of products with a share below 4.5 % each of the total.
Agri-food trade according to Combine Nomenclature of Custom Tariffs (CNCT).

Some positive tendencies have been recorded in the export of meat and meat products. In recent years these two groups have represented approximately 6 % of the total agri-food exports (3 % each). Five Serbian slaughterhouses have been licensed for exporting to the EU market.

Regarding agri-food imports, the composition is much more dispersed. A wide range of products is imported, from fresh fruit to high-value food items, where European products dominate.

Figure 8-9: Composition of agri-food imports by main commodity group, average 2007-2008, Serbia



Source: STATISTICAL OFFICE OF THE REPUBLIC OF SERBIA [16].

Notes: Other * – Groups of products with a share below 4.5 % each of the total.
Agri-food trade according to Combine Nomenclature of Custom Tariffs (CNCT).

Changes in foreign trade from 2000-2008 indicate dynamic growth for all main export groups (cereals and related products, sugar, fresh and processed fruits, alcoholic drinks, oils). At the same time, due to growing imports, the trade balance of miscellaneous edible preparations such as coffee, cocoa, live plants and floricultural products remains negative.

The majority of Serbia's agricultural and food products are exported to the CEFTA[9] countries, mainly Montenegro, FYR Macedonia, and Bosnia and Herzegovina. Exports to these countries have been increasing, and in recent years these three countries have absorbed about 50 % of the total agricultural exports from Serbia.

Exports to EU countries have been growing continuously since 2001. A positive balance was first realized in 2005, when 54 % of that year's total agricultural exports were directed to these countries. Regarding the import of agricultural and food products, the EU also represents an important trading partner for Serbia. Products exported to the EU market are mainly products at the lower processing stage, which are price competitive, while imported products are high value products.

5 AGRICULTURAL POLICY

5.1 Agricultural policy framework

From 2000-2008, the institutional framework of agricultural policy was not transparent, lacked continuity and often resulted in conflicting solutions. Mixing the powers of republican and federal institutions for many years was hindering institutional changes in the sector to a great extent. Namely, the process of transferring powers in the field of agriculture from the federal to the republic level was not completely finished before 2004. Before the State Union of Serbia and Montenegro was formed in 2003, the ministries of agriculture on both the federal and the republican levels had operated concurrently. With the establishment of the State Union of Serbia and Montenegro, the Ministry of Agriculture at the federal level was abolished, and a part of its responsibilities (sanitary controls, export incentives, etc.) was distributed between the Federal Ministry of Economy and Internal Trade (which continued to function) and the Ministry of Agriculture of the Republic of Serbia. After the separation of Serbia and Montenegro, all powers in the sector were taken over by the Ministry of Agriculture, Forestry and Water Management (MAFWM) [4].

Another reason for slow institutional transformation may be ascribed to frequent changes in the management structure in MAFWM. The lack of continuous and consistent policy, i.e. clearly-defined preferences and the development of

[9] Central European Free Trade Agreement.

mechanisms for their implementation, caused both efficiency and the overall results of the policy to be below the expected and objectively possible level. Uncertainty regarding accession to the EU and the WTO adversely slowed the harmonization of the required production standards and procedures.

At the beginning of 2000, Serbian agricultural policy focused on encouraging the intensity of production and changing agriculture's production structure. Regaining access to the EU market and autonomous trade preferences had a crucial impact and resulted in increasing exports, especially sugar and vegetable oil [4]. Therefore, the production of industrial plants was encouraged by direct payments per hectare[10]. During that period, specific land policy was introduced, which included incentives for farmland renting.

From 2004-2007, a strong turn was made in the strategic determination and implementation mechanisms in the agricultural policy of Serbia compared to the previous period. In 2005, the government adopted the Agriculture Development Strategy. The reformed agricultural policy was intended to increase the competitiveness of commercial family farms. In terms of implementation mechanisms, agricultural policy focused on encouraging investments.

The Strategy includes the following objectives: (i) build a sustainable and efficient agricultural sector that can compete in the world market, and thereby contribute to GDP growth; (ii) provide food products which satisfy consumers' needs in terms of quality and safety, (iii) ensure the living standard for people who are dependent on the agricultural industry and are incapable of keeping up with economic reforms; (iv) ensure support for sustainable rural development, (v) protect the environment from the negative effects of agricultural production, (vi) prepare the Serbian agricultural industry for EU integration; and (vii) adapt domestic support and trade policy to WTO standards.

Apart from the Agriculture Development Strategy, a number of other strategic documents adopted from 2001-2008 tackle (directly or indirectly) certain aspects of agriculture and rural development.

The EU has funded a technical assistance project titled Support to Rural Development Programming and Payments System (2006-2008), managed by the European Agency for Reconstruction. The project had two components: one supported the MAFWM by introducing project-based support measures aimed at sustainable rural development and building appropriate administrative capacity. The second component aimed to adapt Serbia's payment procedures for agricultural and rural development subsidies to be able to implement the guiding principles of EU regulations governing general budgetary procedures and agricultural Paying Agencies.

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[10] This approach, together with other system and institutional changes, raised the value of agricultural and food industry exports from EUR 321 million in 2000 to EUR 509 million in 2003, i.e. 60%.

For the second component, a working group to prepare the project was established. This project introduced MAFWM staff to the preparation, implementation, monitoring and evaluation of rural development programs, as well as planned procedures and tools to support these actions. Some of these skills have been developed, and a first Draft National Rural Development Strategy Plan 2008-2013 has been prepared. In March 2008, a National Rural Development Program for 2008-2013 was drafted, but it has not yet been adopted by the Parliament.

The allocation and use of budgetary funds for agriculture and rural development is carried out according to a special act passed by the government, on the proposal by MAFWM, in line with the Budget Law of the Republic of Serbia. Based on the approved funds, MAFWM adopts the program of allocation and use of the subsidy system in the fields of agriculture, forestry and water management for the current year. The funds and activities stipulated by the program are made operational through:

- Regulations adopted by the Government based on MAFWM proposals.
- The open call for tenders meant for program activities which are eligible for co-financing by the users of the funds.
- Programs designed to finance actions of general interest for which MAFWM provides scope and program of activities in the current year (extension service, selection, etc.).
- Direct funding, based on the beneficiary's request. This is a method of funding a wide range of initiatives related to improving the overall capabilities of the ministry and other institutions (publications, promotional materials, conferences, commissions, etc.).

From 2007, the implementation of agricultural policy has been permanently changing. Programs and regulations were changed and/or abolished several times during the year, and payments to the users were delayed, which contributed to the creation of an unstable and unfavorable economic environment. Additionally, there is no defined model for monitoring and reporting agricultural policy implementation and related budgetary expenditures, thereby making it difficult to assess the situation.

5.2 Market and direct producer support measures

5.2.1 Market support measures

Among market support measures, import protection and export subsidies have been the most widely used mechanisms for supporting agriculture in Serbia, although some changes in implementation have been introduced. From 2004-2007, there were also some market interventions in the form of the intervention purchase of wheat implemented by different schemes.

Reforming Serbian foreign trade regulations started in 2000 with Amendments to the Foreign Trade Act and Foreign Currency Act. In 2001, the Serbian government, in cooperation with the International Monetary Fund and the World Bank, made further steps towards liberalizing foreign trade; quantitative restrictions for a majority of products were abolished, a number of products were made exempt from the export quota regime and the Customs Tariff Act was adopted.

Nevertheless, the share of agricultural products in the group of products with maximum customs protection remained high, with maximum tariff rates being introduced for strategic agricultural products. The liberal import of these products would have strong economic and social implications. Generally, in determining the customs charges for agricultural and food products, the principle was followed that the products which were not produced in the country or not produced in sufficient quantities (breeding animals, additives, cocoa, citrus fruits, citrus fruit concentrates), were charged lower rates (1 %, 5 % and 10 %). Higher rates (10 % and 20 %) were anticipated for products that may also be used as intermediates and are not produced in sufficient quantities in the country, as well as for the commodities for which import was not quantitatively restricted before [10].

In December 2006, Serbia signed CEFTA agreement, which focuses on converting 31 existing bilateral deals into a multilateral document. Serbia has the largest net exports of agricultural products of all CEFTA signatory countries, and therefore stands to benefit the most from CEFTA's implementation.

Thus far, Serbia has achieved the full liberalization of trade in agricultural products with Bosnia and Herzegovina, FYR Macedonia and Montenegro. Trade has also been liberalized for most of the agricultural products with Moldova, while quotas have been established for tobacco, cigarettes, wine and spirits. Trade with Albania takes place within the agreed-upon quotas, with the application of tariffs that are reduced by 10 %. In trade relations with Croatia, a high level of liberalization has been achieved (about 60 % of agricultural products have been fully liberalized).

Export subsidies were applied after 2000 for a wide range of agri-food products (meat and meat preparations, dairy products, fruits and preparations of fruits and vegetables, beverages). Export subsidies absorb most of the market support funds (approximately EUR 12 million from 2004-2008, on average), and were practically the only market support measure implemented in 2008.

5.2.2 Direct producer support measures

Producer (production) support is the dominant form of budgetary support to agriculture in Serbia. In recent years this support varied significantly in terms of content, value and the method of implementation. Support programs were often changed, even within one production year, which created great uncertainty for producers [11, 12, 17].

Since 2000, direct support schemes were implemented for the production of wheat, industrial crops and milk, and since 2007 also for young bulls and dairy cows. As of 2007, the crop premiums were abolished (except the tobacco premium) and replaced by input subsidies.

The premium for wheat production was introduced in 2004 under great pressure from the producers, and the support scheme changed several times during that year. The original solution anticipated subsidizing the wheat producers for the quantities stored at registered warehouses. The anticipated amount of premium was 13.78 EUR/t, with a supplementary payment of 6.89 EUR/t if the stored wheat was immediately sold at a price of 89.57 EUR/t, or at 96.46 EUR/t paid in three installments. The government adopted this support scheme when the harvest had already been finished, so that a part of the producers certainly suffered a loss. An even more controversial solution was implemented in 2005 when the market price of wheat at harvest time was extremely low; because of this, MAFWM adopted the regulation of producer subsidies amounting to 60.31 EUR/ha. However, this support was paid to producers who had signed a form stating that they intended to produce wheat in 2005, and not to those who had produced wheat that year and had really been hit by low prices.

Premiums for the production of soybean, sunflower and sugar beet were introduced in the support system in 2001. The aim of these measures was to provide raw materials to restart the production of oil and sugar to utilize quotas approved by the EU. In 2006, after this production had been increased and stabilized and the privatization of the food industry ended, direct payments were abolished.

Premiums for the production of sugar beet have been paid according to the sown area contracted with sugar factories. In 2004, support for sugar beet was 41.34 EUR/ha and in 2005 it fell to 12.06 EUR/ha. Premiums for soybean and sunflower production were granted for the quantities delivered to processors within contracts. In 2004 the premium was the same for both oilseeds (27.56 EUR/t), while in 2005 the premium for sunflower was slightly lower (24.12 EUR/t for soybean; 18.09 EUR/t for sunflower). Besides mercantile soybean, the MAFWM 2004 Program also included the production of certified soybean seed (with the same premium amount) in order to improve quality and combat the illegal imports of GMO seeds. This type of support was subsequently abolished.

A premium for oil pumpkins was first introduced in 2004 (110.24 EUR/t). In 2005, the premium was reduced (72.37 EUR/t) and then in 2006 changed to an area payment (83.15 EUR/ha) granted to registered farms that declared themselves as commercial producers.

A premium for rapeseed was granted only in 2006 in order to meet the needs of the first biodiesel production plant that was opened in Serbia. This premium was also granted in the form of area payments (83.15 EUR/ha) to registered farms that declared themselves as commercial producers.

Up to 2005, premiums for tobacco were granted for the contracted and delivered product, depending on variety and class (206.7 to 1,309.1 EUR/t in 2004; and 120.6 to 1,085.5 EUR/t in 2005). The highest premium was set for first class tobacco of the *Oriental* variety, and the lowest for the fifth class of the *Burley* variety. To be eligible for a premium, producers had to comply with planting density. In 2006 the premiums were temporarily changed to area payments (772.06 EUR/ha) and since 2007, tobacco production subsidies have regained the form of payments for quantity and quality delivered (312.15 to 1,137.45 EUR/t).

The dairy premium has the longest (decades-old) tradition in Serbian agricultural policy. Payment to milk producers is made by the dairies. The premium is defined by quantity of milk delivered, and depends only on the region in which the milk is produced (higher premiums for producers in the hilly-mountainous regions compared to those in the plain regions). From 2004-2008, the dairy premium was permanently reduced from 53.5 EUR/t (58.8 EUR/t in LFA) in 2004, to 24.2 EUR/t (36.4 EUR/t in LFA) in 2007, and to 19.42 EUR/t (29.13 EUR/t in LFA) in 2008.

In 2008, a subsidy for the genetic improvement of dairy cattle was introduced, which has become known as the "70 Euros per registered cow" incentive. This regulation sets forth the terms and conditions for using the support for raising the quality of breeding animals with the aim of genetically improving dairy cattle. Incentives can be granted for a minimum of 3 animals and a maximum of 100 animals per registered farm.

Subsidies for fattening young bulls were introduced in 2007 and promoted as the support initiative "90 Euros per bull". This was the first measure of direct support that was granted in the form of payment per animal. The regulation anticipated subsidizing the raising of fattening bullocks (Spotted Domestic cattle of the Simmental type, Simmental and other breeds). Incentives were granted if the animal had been produced in the farmers' own breeding stock or had been bought to be fattened on the recipient's farm for at least 180 days and intended for meat production.

In recent years, input subsidies have regained their importance. Previously, input subsidies focused on breeding livestock, diesel fuel and interest rates on short-term loans. Recently, however, support was extended to calves for fattening, mineral fertilizers, seeds, and insurance premiums. As of 2007, along with the abolishment of crop premiums, flat rate subsidies on inputs (100 EUR/ha in 2007 and 120 EUR/ha in 2008) for farms with less than 10 ha, and subsidies for the purchase of fuel, mineral fertilizers and seeds for farms between 11-100 ha have become a basic instrument of direct producer support.

5.3 Structural and rural development measures

Rural development is an important issue for Serbia. This could be explained by heterogeneous characteristics of rural areas in geographical, economic and social terms, high proportion of rural population, and (still) high dependence of rural population on agricultural income [7]. Besides, a recent research indicates the increase in rural poverty, especially within the vulnerable social groups (the young, the elderly, women, refugees and displaced persons, population in the hilly/mountainnous areas), as well as the growth of poverty in the most intensive agricultural areas of the country (Vojvodina and Šumadija) [3]. Finally, like other Balkan countries, Serbian rural areas have rich biodiversity that is not adequately protected and for which there is no adequate management established.

Support for rural development has become more actively implemented since 2004. In the 2004-2005 programs, there was only one measure related to rural development which integrated several very different measures, from direct support to producers (purchase of cattle), to support for investments in agriculture and support for the certification of organic agriculture, to more general support for the rural population. The measure was intended only for certain users (e.g. regarding support for investments, only farmers aged up to 40 or 55, depending on the region, could apply). In the 2007 program, this measure was divided into four measures, and in the 2008 program into five separate measures that have been rounded according to the objective and expanded in terms of users (no age restrictions, different shares of public funds depending on the area). In this segment, the 2008 program is much closer to EU programs for rural development, in terms of content, users and methods of implementation.

From 2004-2008, the share of rural development support in the overall budget was low and less than objective needs. Most of the funds were used for increasing the competitiveness of farms and restructuring agriculture by supporting investments to machinery and equipment. The largest part of this support was related to subsidizing interest rates on loans intended to renovate machinery. Further, in 2006, large amounts (over EUR 40 million, or 50 % of support for rural development) were spent for support to non-commercial farms, which was distributed as linear payments of approximately EUR 490 per member of a registered farm over the age of 55. These persons were not entitled to apply for other forms of support, excluding the premium for milk.

From 2007-2008, funding for subsidizing interest rates was significantly reduced, and support for the activation of the land market, for producer's groups and associations, and for the improvement of soil quality were abolished.

Apart from subsidizing interest rates on loans and support for non-commercial farms, the following activities have also been supported: improvement of fruit and vegetable production by subsidizing parent plantations; revitalization and eradication of neglected and infected plantations; examining the list of varieties; production of

wine and other products with protected designation of origin; genetic improvement of dairy cattle and milk quality.

Among the measures intended for environmental protection and the countryside, the preservation of plant and animal genetic resources, the development of organic production, protection from erosion and the management of regional waterways have all been implemented. Support to this group of measures is very modest, amounting to 0.1-1.7 % of total expenditures related to rural development.

Quality of life in rural areas and diversification of the rural economy has been supported modestly, bearing in mind the problems of rural poverty, the transitional surplus labor force, orientation to the development of multifunctional agriculture and the diversification of the rural economy. Since 2005, this type of support has ranged approximately EUR 1 million, excluding 2007, when the investments were significantly higher (about EUR 8 millions). The reason for such a high increase of funds in 2007 is that the National Investment Plan projects for the reconstruction of rural infrastructure were registered in the sub-account of the Ministry of Agriculture.

In addition to rural infrastructure, this group of measures also includes support for the diversification and development of the rural economy, stipulating measures such as: support for the promotion of local events, traditional crafts and products, and developing rural tourism. Projects for the promotion of rural tourism as a form of diversification of the rural economy have been financed since 2007 through the refurbishment of facilities and education (maximum EUR 12,500 per project). In 2008, the support was divided into two forms: the restoration of traditional rural households and promotional and educational activities.

Finally, since 2007 the strengthening of local partnerships and the capacity of local rural stakeholders has been supported by LEADER-like measures; the founding of rural information centers has been co-financed, as has the establishment of rural networks and the education of local action groups.

It should be stressed that apart from the presented budget incentives to rural development, other funds, without precise comparative records, have also been used [17]. This primarily refers to funds for the reconstruction of rural infrastructure, which were distributed through several ministries.

Also, significant funds were invested in support for: the renewal of mechanization; land amelioration; the introduction of food quality standards; and the promotion of local products and events in the region of Vojvodina. These activities were financed from the budget of the Autonomous Province of Vojvodina, and the programs were executed through public tenders.

Rural development was also financed from local/municipal budgets. Based on incomplete data, it has been estimated that the amount of these budgetary incentives has been increasing, as has the number of municipalities having specific

budget lines for agriculture and/or rural development. The most supported activities are local events, participation in trade fairs, the promotion of local products and values, tourism potential and the like. In addition, most municipalities that have agricultural budgets also allocate funds for the artificial insemination of cattle, plant protection, prognostic services, etc., while some municipalities also co-finance agricultural loans.

Recognizing the heterogeneous socio-economic characteristics of different parts of rural Serbia, measures to support rural development have been formulated so that users in less favorable areas receive more funds primarily because of less favorable natural conditions for agricultural production, but the same applies for regions with protected natural assets or national parks. These benefits are reflected in higher rates of return on the invested funds compared to other regions (as was previously mentioned for higher milk premiums). Less favored areas according to EU standards have not been defined, but some efforts are being made to establish as objective criteria as possible for their selection.

The 2008 program also envisaged support for the members of vulnerable social groups in the rural population (Roma, refugees, displaced persons, socially disadvantaged individuals and returnees from urban areas). Due to a lack of funds, this regulation was not implemented in full as had been planned. On the other hand, what had a great impact on the economic position of rural households was a reduction in support to farms whose owners were over 65 years old, as well as the growth of agricultural products and input price disparities in 2009.

5.4 General measures related to agriculture

The need for general agricultural support measures in Serbia is significant, bearing in mind the institutional disorder of the sector, the technical and technological unpreparedness of institutions to meet complex requirements associated with agricultural policy reform, and the inability to establish more efficient structures at all levels. Generally, funds for financing various departments are being increased, but it should be emphasized that these funds are relatively small, indicating weak development levels, primarily of general services for agriculture (improving cadastral records, extension service, etc.).

Within the general services sector, the greatest proportion of support funds was directed to extension services or to financing agricultural expert service (34-56 %). The network of professional extension services in Serbia is coordinated by the Institute for Application of Science in Agriculture, which is under the auspices of the Ministry of Science. Activities performed by the extension service for the needs of MFAWM (quality control, recommendations and advice to manufacturers, etc.) are financed from the Agrarian budget, based on a specific contract [9].

In recent years, general services in agriculture also included support for hydro-meteorological stations, for monitoring weather conditions, natural disaster warning through the media, anti-hail interventions, forecasts for the occurrence of plant diseases and pests. A smaller portion of funding was used for the needs of veterinary inspection, co-financing soil quality control and the work of the extension bodies of the Ministry.

This part of the support is certainly greater than the finances recorded, as one part has been executed through other ministries (e.g. the Ministry of Science is financing research projects related to technical and technological innovation and raising standards of food safety and quality, whose results will be applied in practice) or other directorates of MAFWM. Since 2001, a significant part of the activities in this group of measures has been financed by donor or development project funds.

5.5 Overall budgetary outlays on agri-food policy

Quantitative analysis of funds spent to support agriculture clearly indicates a significant reduction in the budget for this purpose in 2005 compared to 2004. After 2005, budgetary support again increased, and peaked in 2008. However, it should be mentioned that the available data do not allow the accurate tracking of funds spent for the payment of obligations transferred from the previous year[11]. Of the total funds spent in 2008, EUR 24.6 million were obligations from 2007. Bearing this in mind, it may be concluded that budget growth was more modest. However, a large delay in the distribution of about 12 % of funds for incentives is not negligible from the standpoint of the users of these resources.

In the observed period, very large fluctuations can be seen in levels of support for different policy pillars. Budgetary support for market and direct producer support measures from 2004-2006 rapidly decreased, and increased again after 2007. The reason for the reduction in 2005 may be found in the reduction of the total budget (there are no important differences visible in the structure), while in 2006 it was a consequence of the large increase in the execution of second pillar measures (introduction of support to non-commercial farms) on account of the first pillar. Aside from 2006, the proportion of the first pillar in the total budget of all three years was quite similar (from 73 to 80 %), but if a more detailed look at the structure of a group of measures within the first pillar is taken, a radical change in policy can be seen.

[11] The analysis used the records of funds spent to support agriculture and rural development by individual budget lines, provided by MAFWM. The source of data from 2004-2006 was the accounting center of the ministry. For 2006, data from the MAFWM financial service was also used, and from 2007-2008, only data by the MAFWM financial service was employed [17].

Funds for direct payments were significantly reduced from 2004-2008. On the other hand, there was a large increase in funds for subsidizing inputs in the last two years, and especially in the last year of the observed period. The share of these funds in the total assets of the first pillar was very large, reaching 90 % in 2008. The main problem of such frequent and radical changes in types and forms of direct support to producers is that they are generally connected with a strong re-distribution of resources among the farmers and thus do not create a stable economic environment, which is one of the essential conditions for stable agricultural development.

Table 8-5: Budgetary support to agriculture (in EUR million), 2004-2008, Serbia

	2004	2005	2006	2007	2008
Market and direct producer support measures	**190,8**	**102,6**	**99,1**	**159,0**	**222,7**
Market support measures	60,8	10,2	22,4	24,7	12,2
Export subsidies	15,5	10,2	10,7	12,2	12,2
Market intervention	45,3	0,0	0,7	12,5	0,0
Other	0,0	0,0	10,9	0,0	0,0
Direct producer support measures	129,9	92,4	76,7	134,3	210,5
Direct payments to producers	85,4	62,0	32,8	28,3	21,4
Based on output (price aids)	85,4	53,2	32,8	27,1	14,9
Based on current area/animal	0,0	8,9	0,0	1,2	6,5
Input subsidies	44,5	30,3	43,9	106,0	189,1
Structural and rural development policy measures	**42,5**	**40,4**	**81,2**	**32,4**	**26,2**
Improving the competitiveness of the agricultural sector	42,5	37,1	79,6	20,2	21,4
Improving the environment and the countryside	0,0	2,1	0,4	0,6	0,4
Supporting rural economy and population	0,0	1,2	1,2	8,8	1,7
Miscellaneous rural development measures	0,0	0,0	0,0	2,9	2,8
General measures related to agriculture	**5,0**	**5,9**	**3,7**	**4,2**	**4,5**
Miscellaneous agricultural policy measures	10,6	1,5	0,0	5,4	24,6
Total budgetary support to agriculture	**248,9**	**150,4**	**184,0**	**201,1**	**278,0**

Note: Own assessment based on internal documents of Ministry of Agriculture, Forestry and Water Management (compiled in APM database).

Within the structural and rural development policies, support to non-commercial farms was implemented only in 2006, and the volume of funds was quite significant. Excluding the funds intended for this measure, it can be seen that the majority of funds was spent in the form of support to investments in agriculture. The amount of these funds was greatly reduced in 2007-2008. Actually, with the change of administration in MAFWM in the middle of 2007, support to rural development was reduced to a minimum. Most of the funds were granted through investment support or subsidies for inputs in order to alleviate the effects of drought.

Funds for supporting various services in the observed period were relatively small. Such a small amount of funds to support the development of service providers may

be partly a result of the fact that they were financed from donor projects and other funds.

Apart from the dynamic changes in the scope and structure of budgetary incentives for agriculture, equally problematic were the changes in supporting schemes and users of budget incentives. In 2004, the farm registration system was introduced, which developed gradually until registration became a prerequisite for the use of public support. Conditions for exercising this right changed, and the criteria were more and more favorable towards large enterprises. In addition, in 2009 a new limitation was introduced, stipulating that the registered farms must have settled accounts with the pension and disability funds for the previous year[12]. This obligation was made more challenging in the second half of 2009, as the amount predicted for subsidizing inputs was reduced to 30 % for farms with a retired holder (over 65 years old). Here it must be pointed out that according to unofficial data, the subsidies for inputs in 2008 were used by only approximately 80,000 households, which accounted for roughly 12 % of the total number of households, or 17 % of the registered farms in Serbia. It has been estimated that their registered area covered about 750,000 hectares, which implies that the support included only a quarter of arable land.

6 SUMMARY AND CONCLUSIONS

Agriculture and the agro-industry remain one of the most important sectors of the Serbian economy. From 2000-2008, the share of agriculture in GDP fell by more than 50 % thanks to the growth achieved in the service sector, but still accounts for about 9 %. Additionally, this sector contributes significantly to balancing external trade and employs more than one-fifth of the labor force. Serbian agriculture has achieved slower growth compared to its real production capacities for several years. Technological backwardness has extended to this decade, which is reflected in relatively low yields that are highly dependent on weather conditions. The structure of the agricultural area is still dominated by cereals, while the permanent crop area is decreasing. Livestock production accounts for about one-third of the value of agriculture.

Since 2005, Serbia has had a positive balance of foreign trade in agriculture. The export of agricultural products is of particular importance for the stabilization of Serbia's high trade deficit. The most important partners of the agriculture and food industry are CEFTA countries, where Serbia can be competitive. A more expansive breakthrough to other markets is not realistic in the foreseeable future due to unstable surpluses, and because of the slow implementation of safety standards.

[12] The problem was that the introduction of such a clause forced farmers to also settle debts from the previous budgetary period, which was impossible for most of them in the years of economic crisis.

In addition, the range of export products is experiencing rather slow innovation (excluding industrial milk and dairy products), so raw products and intermediate products remain key exportables.

Integration of the agriculture sector with the EU is evolving slowly, characterized at all levels – from establishing the institutional and legislative framework, implementing agricultural policy, to inspection controls. The reasons for this can only partially be found in the uncertainty of the pace of the accession process. What contributed much more were the lack of political stability and frequent changes in the MAFWM management structure, as well as a lack of willingness to accept accountability for more radical structural reform required by the integration process. In its November 2008 Progress Report, the European Commission [8] highlighted a number of priority areas for action which are necessary to move Serbia's application for membership to the EU forward. It was highlighted that the area of agriculture in Serbia is advancing in fulfilling the SAA requirements and its European Partnership priorities, but the administrative capacity of the Ministry of Agriculture, Forestry and Water Management needs to be strengthened. Serbia also needs to further improve its record on implementing food safety, veterinary, phytosanitary and agricultural and rural development policies.

Changes in farm structure during the transition period in Serbia were not dynamic and did not result in significant structural changes to the food chain. Further, the existence of the private sector in the pre-transition period, and the reduced opportunities for employment outside agriculture, have contributed to the slower establishment of the land market. The land market is functioning much more in the form of renting and leasing than buying and selling. A dual agrarian structure has been established in the northern plains of the country, where the average size of farms is 30-40 ha. In other areas, the farms are small (2-4 ha of agricultural land), overloaded with workforce, and there is no possibility for the establishment of an active land market or the reallocation of resources toward more efficient users.

The liberalization of agricultural prices began in the 1990s and has continued during the 2000s. As in the previous decade, the agricultural price policy has been characterized by instability and the lack of long-run, systematic solutions. The monopolistic position of the food industry contributed greatly to dynamic price changes. In recent years, the government attempted to solve market disruptions through market interventions (purchase of wheat, ban on exports of cereals and industrial plants, emergency imports), but this was done mostly on an *ad-hoc* basis.

Agricultural policy in Serbia is only partly designed on a strategic basis and in recent years it has been characterized by the increasing estrangement from the EU model of support. The current strategy has thus far not been supported by the accompanying program documents, so the measures for its implementation inconsistently followed the goals. Frequent changes in administrative structures brought radical changes in the system of support, which is equally an impermissible

approach from both the viewpoint of the user and the overall interest of the sector. Such solutions exposed farmers to high income-generation and business risk, and led to policies being insufficiently transparent. In addition, a discriminatory attitude towards certain groups of users, to the benefit of others, is also evident.

Serbian agricultural policy requires fundamental reforms at all levels. The stability of measures is not provided, which is a sign that politics are still in transition and that no long-term framework exists. Financial resources are not specified for several years in advance, and they change depending on the annual state budget and the share of agriculture it contains. This only adds to the instability of the policy.

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CHAPTER 9

AGRICULTURAL POLICY MEASURES TEMPLATE – A TOOL FOR CLASSIFYING AND ANALYZING AGRICULTURAL POLICY MEASURES

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1 INTRODUCTION

In a large part of the world, and particularly in Europe, agriculture is strongly marked by public interventionism and protectionism [9]. Indeed, agricultural policy can affect agriculture through various measures. The goals and priorities of agricultural policies as well as instruments and measures have been changing. The efforts of international trade negotiations towards the greater liberalization of markets and trade have a particularly strong influence on agricultural policy measures, which are also crucial for changes to agricultural policy in the European Union (EU). Market-price policy measures in the form of border protection, market interventions and export refunds, which represented the main form of support to agriculture from after World War II until the 1990s, have been losing importance. Instead, they are being replaced by various forms of budgetary supports, whose form has also been constantly changing towards decoupled production and more targeted measures.

The scope, form and type of budgetary transfers to agriculture, as well as their development over time, are important for agricultural policy analysis. A consistent and reliable policy measure database is the necessary foundation for effective agricultural policy-making based on a policy cycle. The main problem of quantitative analyses of budgetary transfers to agriculture is that a great variety of measures are applied by individual states; one cannot obtain an overall picture based on the analysis of each individual measure. Measures must be merged into larger groups of

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measures with similar content, but can be done based on very different criteria. If a country strictly pursues uniform criteria over a longer time period, the analysis of time series can explain the development of that country's agricultural policy. Problem arises, however, if one wants to compare the policies of various countries among each other; in this case the criteria used for merging the measures into groups must be made uniform.

There are two classifications of agricultural policy measures which are claimed to allow direct international comparison: the OECD PSE (Producer Support Estimate) classification [7] and the WTO AMS (Aggregate Measurement of Support) classification [11]. The AMS methodology has been developed in the context of international trade negotiations. Consequently, it has some unique characteristics which are not necessarily based on purely economic criteria [2]. The AMS classification is therefore usually not used to analyze agricultural policy.

In the EU, no uniform publicly-accessible database exists that would incorporate all budgetary transfers to agriculture. Detailed data from the EU budget are available, but this is not the case for data on all the national or even sub-national measures of each individual state. It is rather paradoxical that the most comprehensive, publicly-accessible database on agricultural policy measures in the EU is provided by the OECD [8], which collects data on national measures directly from EU Member States. This, however, does not mean that one cannot speak of the system of classification of agricultural policy measures in the EU. A very detailed accounting system [3] exists for the measures financed or co-financed from the EU budget, which in practice can be regarded as the system of classification of agricultural policy measures.

One of the goals of the studies within the "AgriPolicy" project [1] was to analyze agricultural policy in the candidate and potential candidate countries in a way that enables both comparison between these countries and with the EU Common Agricultural Policy (CAP). After the first overview of the monitoring system and availability of data on budgetary supports to agriculture in these countries, it became clear that this would be a very demanding task. In no country could we find systematically-organized and publicly-accessible data. Therefore, both quantitative and qualitative information on agricultural policy measures had to be collected on the most detailed level possible, and then categorized according to uniform criteria.

To help candidate and potential candidate countries compile a comprehensive policy measures database while also allowing for the international comparison of agricultural policies, a methodological tool was developed called the APM (Agri-Policy Measures template). Thus, a uniform classification of agricultural policy measures was created which has all the characteristics of internationally-recognized classifications, and allows for the use of the database for various analyses of agricultural policy. The underlying ambition was to develop a tool which would enable the comparison of agricultural policies outside the context of this project for

those countries entering the EU integration processes, as well as for EU Member States. This chapter presents the uniform classification of agricultural policy measures and the process of populating the APM database. The method was also applied in the previous chapters of this study for the analysis and comparison of agricultural policies in the Western Balkan countries.

The introduction is followed by the presentation of the AMP methodology. First, the main characteristics of the classifications used as a basis for APM classification are briefly presented. This is followed by the presentation of basic methodological characteristics of the APM tool. The essential concept of APM and the APM classification scheme are then elaborated upon. The process of APM database creation is explained, from the data collection and allocation procedure to the data input process. The last part of this section describes the possible uses of the APM database for agricultural policy analysis. The chapter concludes with a discussion on the advantages and disadvantages of using the APM classification for agricultural policy analysis, and puts forward one of the potential modifications of the classification.

2 APM METHODOLOGY

2.1 Agricultural policy measures classification background

As the APM methodology is based on the OECD and the EU classifications of agricultural policy measures, they are presented here in greater detail.

2.1.1 OECD classification

The OECD classification of support to agriculture is the most frequently used classification for analysis and the international comparison of agricultural policy. The new OECD classification of total transfers associated with agricultural policies (TSE) groups policy measures into three main categories: transfers to producers individually (PSE), transfers to consumers individually (CSE), and transfers to general services to agriculture collectively (GSSE) [7].

Transfers to producers (PSE) are composed of market price support (MPS), which is calculated mainly as a price gap between domestic and border prices, and budgetary transfers to producers (including revenue forgone). The classification of budgetary transfers to producers in PSE is based on implementation criteria, and the main categories differ depending on the basis of support (output, input, production factors, non-commodity criteria), whether the basis is current or historical (fixed), and whether the production is required or not.

Other criteria such as policy area, objectives or effects are not taken into account. For example, according to the PSE methodology, direct payments per ha, area payments to producers in less favorable areas, and a large part of the environment-related area

payments are included in the same category (payments based on area/animal numbers/receipts/incomes). This distinction is partly possible in the next step, through the use of labels that represent additional information on policy implementation (additional criteria); however, classification of the measures in terms of the objectives is rather problematic [10].

The classification of budgetary transfers to general services (GSSE) is made according to the purpose of service provided to agriculture. Forestry and services provided to the general rural economy and population are not included.

All OECD indicators of support to agriculture for the OECD Member States are publicly accessible on a regular basis in the OECD database [8]. Various aggregates are available for the EU (EU 15, EU 25, EU 27); hovewer, there is no estimate for individual EU Member States.

2.1.2 EU classification

In the EU, the agricultural measures are grouped according to the policy field and the source of financing, which are both closely related to CAP regulations in a specific programming period.

Taking into account the fund from which measures are financed, CAP is currently divided into two main pillars that are also recognized in the agricultural-economic literature [6]. The first pillar is financed by the European Agricultural Guarantee Fund (EAGF) and consists of a series of measures relating mostly to interventions in agricultural markets and direct payments to farmers set down within the framework of a common organization of the markets and other market-related regulations, although some measures of a more general character can also be found here (veterinary and plant-health issues; promotion of agricultural products; issues related to genetic resources; agricultural accounting information systems – FADN; agricultural survey systems; fisheries markets) [4]. For the measures financed by EAGF, there is a uniform accounting classification (Activity Based Budgetary nomenclature – ABB) [3] which enables the monitoring of budgetary expenditures by sub-categories and measures.

The second pillar is financed by the European Agricultural Fund for Rural Development (EAFRD) and consists of measures within the framework of rural development programs of the Member States implemented in the current programming period. The classification of measures financed by EAFRD depends on current rural development regulations and is not directly comparable with previous (and future) programming periods.

Apart from the two main pillars, which both consist only of CAP measures financed or co-financed by the Community budget[1], a third group of measures can be recognized. This is a very heterogeneous group in which all measures financed entirely by the national budgets of Member States are gathered. Most of the measures are categorized as state aid that have to be approved by the European Commission and are comprised of very diverse measures – from direct payments to producers and input subsidies, to rural development and general agriculture support measures.

2.2 Basic concept of APM

To enable the comparison of agricultural policies in the countries preparing for EU accession with the CAP, the current EU concept based on the policy pillars was also used as a basic starting point for APM classification, but with several adaptations. The main framework of classification is thus comprised of three pillars:

- Pillar 1: Market and direct producer support measures
- Pillar 2: Structural and rural development measures
- Pillar 3: General measures related to agriculture.

The key principle behind the classification is the homogeneity of groups. We strived for the groups to be as homogenous as possible at a higher level in terms of the EU program group, objectives, effects on the market, beneficiary and the method of implementation. At least at the basic headings level, the group was meant to be homogeneous in terms of all the above-mentioned criteria. At higher levels, of course, the level of homogeneity is lower. At higher levels we attempted to apply, to the greatest possible extent, the EU program aspect (pillars, axes), whilst setting forth the beneficiary criteria as the main criterion for the formation of groups or subgroups under individual pillars. The beneficiary criteria also serve as the key criteria for the OECD when classifying a measure in the PSE, CSE or GSSE group.

In simple terms, the APM classification is a combination of the EU program classification of measures and the OECD classification. The OECD criteria were used to divide the measures into a part belonging to PSE budgetary transfers, CSE or GSSE, and a part that, according to the OECD, is not treated as a budgetary support to agriculture. Also, the OECD criteria of disaggregation into individual PSE/GSSE categories and sub-categories were taken into account (see Annex 1). These criteria were usually used for defining the lowest level of classification (basic headings).

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[1] Both the EAGF and the EAFRD funds may each finance the preparatory, monitoring, administrative and technical support, evaluation, audit and inspection measures required to implement the Common Agricultural Policy. Such expenditures are not treated as agricultural support.

Thus, the goal was that the APM allows for a rough analysis of budgetary transfers to agriculture, also according to the OECD PSE classification.

Furthermore, a requirement was made that the APM also meets the classification criteria defined in the methodology of the Economic Accounts for Agriculture (EAA) [5]. The EAA is a compulsory statistical information system for all EU Member States. Countries in the process of EU integration must also meet these demands. As budgetary supports are relatively inadequately covered by statistics, such information obtained from the APM would be very useful.

If the purpose of classification is to meet the criteria of various basic classifications, the measures should be disaggregated to the most detailed level. This, of course, has advantages and disadvantages. The advantage is that based on the disaggregated data, groups can also be formed according to various other criteria (new classifications), which eventually allows their use for various purposes. The main disadvantage is in the comprehensiveness of such a database, which requires a great deal of information to create.

When creating the APM, one of the important goals should be to assure the greatest possible credibility of the collected data. This calls for a system which at least at some level allows for control over the coverage of the collected data. This is why the principle of covering the total line ministry budget (the principle of comprehensiveness) was applied. The data on total line ministry budget are usually available in all the countries, with the ministry of finance as their source. Under the condition that the APM database covers the total line ministry budget and that measures for agriculture from other sources are recorded separately, a comparison can be made of the sum of the funds by measure, with the total volume of available funds (using ministry of finance data) at least at the level of the line ministry. If these two data groups match, this provides satisfactory credibility to the entire database. To cover the total line ministry budget, two additional groups were added to the basic classification framework: administrative costs and transfers to non-agricultural sectors (forestry, fisheries, water management, etc.).

2.3 The APM classification scheme

Technically, the APM classification is based on a 5-digit code system, with the first digit of the code defining the pillar of agricultural policy, the second digit defining the category or axis, and each subsequent digit defining a sub-category of the previous one:

- \- Section (Pillar)
- \-- Division (Axis)
- \--- Group
- \---- Subgroup
- \----- Basic heading

The schematic presentation in this chapter shows the classification scheme up to the third (group) and in some cases the fourth digit (Subgroup) level, while the entire nomenclature is presented in Annex 1.

If the APM database is to cover the total line ministry budget and the budgetary transfers to agriculture from other sources (total funds), there is a need to first make a distinction between the measures which represent budgetary support to agriculture in the broadest sense and those which do not.

Figure 9-1: Total funds and total budgetary support to agriculture scheme

<table>
<tr><td colspan="2">Line ministry total budget</td><td>Transfers to agriculture from other sources</td></tr>
<tr><td colspan="3">Total funds</td></tr>
<tr><td>Transfers to other sectors</td><td colspan="2" rowspan="2">Total budgetary support to agriculture</td></tr>
<tr><td>Administrative costs</td></tr>
</table>

The criteria defining whether a measure is a budgetary support to agriculture and what form of support it is, were in principle taken from the OECD methodology[2]. Supports to agriculture include all budgetary expenditures related to agricultural policy, except those representing administrative costs of the state administration. Under the rural development program in the EU, some measures earmarked for forestry, overall rural economy and population and technical assistance also count as agricultural policy measures[3].

As stated above, three pillars of agricultural policy represent the main framework of classification of budgetary support to agriculture: (1) *Market and direct producer support measures*, (2) *Structural and rural development measures*, and (3) *General measures related to agriculture*.

In addition to these three pillars, the classification also includes the section *Miscellaneous transfers to agriculture*. Some similar "miscellaneous" groups also exist at lower levels of classification. It is typical of most of the candidate and potential candidate countries that their budget expenditure records are inadequate and that often there is not enough information available to allocate them to the appropriate categories.

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[2] In the figures below, it is clearly stated into which group of measures a particular group of measures belong according to OECD methodology. If there is no indication in the tables, it means that it is not possible at this level of classification to include the entire group in any OECD group (they include the measures which, according to OECD criteria, belong to different groups).

[3] According to OECD criteria, these measures do not count as support to agriculture.

Figure 9-2: Breakdown of Total budgetary support to agriculture by pillars

Total budgetary support to agriculture		
1st pillar: MARKET AND DIRECT PRODUCER SUPPORT MEASURES (10000)	2nd pillar: STRUCTURAL AND RURAL DEVELOPMENT MEASURES (20000)	3rd pillar: GENERAL MEASURES RELATED TO AGRICULTURE (30000; GSSE)

The first pillar of APM – ***Market and direct producer support measures*** – includes only those measures which contribute to higher incomes of agricultural producers – either through market measures or in the form of direct supports (on the input or output sides) – and are not related to specific restrictions regarding the choice of production techniques and farm location. The first pillar comprises most, but not all, of the measures which in the EU are financed from the EAGF fund[4]. Due to the principle of substance homogeneity of the groups, a part of the measures within the framework of a common organization of the markets, such as budgetary transfers for promotion, producer organizations, and restructuring of vineyards were not included in the first pillar but rather in the second, and the measures of a general nature, such as veterinary and phyto-sanitary measures and FADN were included in the third pillar of the APM. Moreover, the first pillar also includes all measures of similar substance, which in the EU are implemented as state aid fully financed from national funds.

At the next level, the APM measures of the first pillar are further divided into two groups: *Market support measures* and *Direct producer support measures*.

Figure 9-3: Breakdown of Market and direct producer support measures (1st pillar)

<table>
<tr><th colspan="3">MARKET AND DIRECT PRODUCER SUPPORT MEASURES (10000)</th></tr>
<tr><th>Market support measures (11000)</th><th colspan="2">Direct producer support measures (12000; PSE)</th></tr>
<tr><td rowspan="2">Export subsidies (11010; nonPSE/GSSE)
Market intervention (11020; non PSE/GSSE)
Operational costs for public stockholding (11030; GSSE)
Consumer support (11040; CSE)</td><td>Direct payments and variable input subsidies (12100; PSE)</td><td rowspan="2">Disaster payments and other compensations to producers (12200; PSE)</td></tr>
<tr><td>Direct payments to producers (12110; PSE)
Variable input subsidies (12120; PSE)</td></tr>
</table>

[4] What we consider as EU funds or programs are not concrete EU measures, but the general substance covered by these measures under the CAP. Only such an approach can also serve as a criterion for the classification of measures in those countries that are not EU members.

Market support measures incorporate the measures by which the policy influences the supply and demand on the domestic market, and thereby indirectly influences the prices of agricultural products. The budgetary expenditures related to these measures are divided into three groups: *export subsidies*, *market interventions* and *consumer support*. *Market interventions* are further disaggregated to intervention buying-in (including withdrawals from the market), private storage aid and food aid to third countries. *Consumer support* comprises measures related to the purchase, marketing, processing or consumption of agricultural products provided to the food industry (payments to processors and similar measures) or the domestic population (domestic food aid and similar measures).

Budgetary measures related to *export subsidies* and *market interventions* according to the OECD criteria affect market prices received by producers, creating a price gap that is captured by MPS and therefore does not form a part of PSE/GSSE budgetary transfers. This is similar to *consumer support*, which according to OECD methodology is classified under CSE. The operational costs of public stockholding are recorded separately, as they are the only ones in this group that represent general costs, which by OECD criteria are classified into a separate GSSE sub-category.

Direct producer support measures are further divided into two larger groups. The first group – *Direct payments and variable input subsidies* – contains all forms of regular *direct payments to producers*, which are further disaggregated according to implementation criteria (on output, current area/animal, fixed criteria, other criteria) and *variable input subsidies*, which are further disaggregated according to the type of input (seeds, fuel, fertilizers, insurance, etc.).

The second group – *Disaster payments and other compensation to producers* – comprises the payments for which producers are entitled to apply only in the event of specific circumstances. One of the main reasons these payments were included in a separate group is that they are exceptional payments granted mostly on an ex-ante basis, while the first group of measures is planned in advance and granted on a regular basis. These are mostly payments that compensate producers in the case of unexpected events, for example natural disaster payments, compensation payments related to animal and plant disease eradication, and income- or revenue-loss related payments. Such payments are further disaggregated similarly to other direct payments, i.e. by implementation criteria. Moreover, compensatory payments related to resource retirement (temporary or permanent abandonment of production) are also included in this group. All measures in the group of direct support to producers can be ranked into one of the PSE categories according to OECD criteria.

The second APM pillar is related to ***structural and rural development measures*** and is structured in three main axes: *Improving the competitiveness of the agricultural sector*, *Improving the environment and countryside*, and *Supporting the rural economy and population*. The axes more or less follow the structure of the actual EU rural development programs, though in a broader sense regarding the substance

of measures and with quite a few modifications. Thus, the second pillar includes all measures in the EU that are financed from EARDF, as well as a part of the measures of market organizations that in the EU are financed from EAGF, but in substance belong to this framework, as well as some measures of a similar character that in the EU are financed exclusively from national sources. The third axis also includes the Leader, which in the EU rural development programs forms a separate axis. The measures grouped into axes are quite heterogeneous in substance, which is why the combined axes cannot be ranked into one of the OECD groups.

Figure 9-4: Breakdown of Structural and rural development measures (2nd pillar)

STRUCTURAL AND RURAL DEVELOPMENT MEASURES (20000)		
Improving the competitiveness of the agricultural sector (21000)	**Improving the environment and countryside (22000)**	**Supporting rural economy and population (23000)**

The first axis – *Improving the competiveness of the agricultural sector* – is divided into three groups of measures in the first step, with the main criterion of division being for whom the supports are intended. The group *on-farm restructuring support* merges the measures whose beneficiaries are individual agricultural holdings. The *agri-food restructuring support* group refers to the agricultural sector in a broader sense, whereas the third group contains the measures that support the restructuring of the *forestry* sector. According to OECD criteria, the first group is ranked into one of the PSE categories, the second group is ranked into one of the GSSE categories, and the third group does not count as support to agriculture according to OECD criteria.

Figure 9-5: Breakdown of Improving the competitiveness of the agricultural sector (2nd pillar, 1st Axis)

Improving the competitiveness of the agricultural sector (21000)		
On-farm restructuring support (21100; PSE)	Agri-food restructuring support (21200; GSSE)	Forestry support (21300; non PSE/GSSE)
– *On-farm investment support (21110;PSE)* – *Other on-farm restructuring support (21120;PSE)*	– *General support to agricultural sector (21210;GSSE)* – *Food processing support, marketing and promotion (21220;GSSE)*	

On-farm restructuring support is composed of two sub-groups: *on-farm investment support* including investments in vineyards, orchards, olive tree plantations and hops gardens, irrigation, drainage and other long-term land improvement investments on the farm, and *other on-farm restructuring support*, which includes measures to facilitate structural adjustments of agricultural holdings, granted mostly in the form of flat rate payments (setting up young farmers, adapting to demanding standards,

participation of farmers in food quality schemes, exceptional assistance). *Agri-food restructuring support* is divided into the sub-group that includes the measures supporting the restructuring of agriculture in general (agricultural infrastructure, early retirement, semi-subsistence farms, etc.) and into the sub-group with measures supporting food processing, marketing and promotion (including producer groups and organizations).

The second axis gathers measures aimed at *improving the environment and countryside*. The first subgroup of this axis – *Environment and landscape targeted payments to producers* – is composed of payments granted to agricultural producers to compensate for higher costs or lower revenue due to less favorable natural conditions for agricultural production (subgroup *Payments to farmers in areas with natural handicaps*), due to environmental restrictions (sub-group *Payments to farmers in protected areas*) and due to a voluntary agri-environmental commitment that goes beyond the mandatory standards (subgroup *Agri-environment and animal welfare payments to farmers*). At the next level, these sub-groups are divided by implementation criteria (on output, area, animal numbers, non-commodity criteria). Since the whole group of measures represents support to individual agricultural producers, all the measures can be ranked into one of the PSE categories. The second group of this axis – *Environmental payments not directly linked to agriculture* – includes payments with environmental or countryside objectives that are not related to agricultural producers or agriculture, such as environmental payments to forestry, and according to OECD criteria do not represent support to agriculture.

Figure 9-6: Breakdown of *Improving the environment and countryside* (2nd pillar, 2nd Axis)

Improving the environment and countryside (22000)	
Environmental- and landscape-targeted payments to producers (22100; PSE)	Environmental payments not directly linked to agriculture (22200; non PSE/GSSE)
– *Payments to farmers in areas with handicaps (22110; PSE)* – *Payments to farmers in protected areas (22120; PSE)* – *Agri-environmental and animal welfare payments to farmers (22130; PSE)*	– *Environmental payments to forestry (22210; non PSE/GSSE)* – *Other payments with environmental objectives (22220; non PSE/GSSE)*

The third axis comprises the measures *supporting rural economy and population*. This axis is composed of three groups, of which only the first one – *Support to rural population directly linked to farms* – which includes measures such as support for on-farm diversification into non-agricultural activities, is regarded as support to agriculture according to the OECD criteria (GSSE). The second group – *General support to rural economy and population* – which includes measures such as business creation, rural infrastructure and services, village renewal and similar measures, and the third group – *Building local capacity (LEADER)* through skills-acquisition,

animation, preparation and the implementation of local development strategies – are not treated as being directly related to agriculture, and thus not included in GSSE.

Figure 9-7: Breakdown of *Supporting rural economy and population* (2nd pillar, 3rd Axis)

Supporting rural economy and population (23000)		
Support to rural population directly linked to farms (23100; GSSE)	General support to rural economy and population (23200; non PSE/GSSE)	Building local capacity (LEADER) (23300; non PSE/GSSE)
– *Support to on-farm diversification into non-agricultural activities (23110; GSSE)* – *On-farm support to rural population – other (23120:GSSE)*	– *Business creation and development (23210; non PSE/GSSE)* – *Rural infrastructure and village development (23220; non PSE/GSSE)* – *Other measures to support rural areas (23230; non PSE/GSSE*	

The third APM pillar – ***General measures related to agriculture*** – covers measures which are aimed at supporting public services related to agriculture such as research, development, advisory and expert services, food safety and quality control (veterinary and phyto-sanitary measures, quality policy, etc.), technical assistance and other similar measures provided to agriculture collectively.

Figure 9-8: Breakdown of *General measures related to agriculture* (3rd pillar)

GENERAL MEASURES RELATED TO AGRICULTURE (30000; GSSE)		
Research, development, advisory and expert services (31000; GSSE)	Food safety and quality control (32000; GSSE)	Other general support measures (33000; GSSE)

In the EU these measures are mostly financed from national budgets. This pillar also includes some measures of a general character, which in the EU are financed from the EAGF. All measures in this group are ranked into the GSSE according to OECD criteria.

2.4 APM database creation

2.4.1 Data collection

For countries with no publicly-accessible and systematic system for monitoring budgetary spending by individual agricultural policy measure, data collection for APM creation is a demanding process. In these cases, a number of possible sources must be examined, such as governmental budgetary plans, policy programs and

regulations, reports on the implementation of agricultural policy measures from various ministries, etc.

When collecting data from various sources, there is always a danger of incomplete coverage. It is therefore crucial to also obtain aggregate budgetary data. Usually, the Ministry of Finance is the primary source of the total budget of the state ministry and other (administrative) state bodies related to agriculture. Additional efforts need to be made to gather data on transfers to agriculture from other sources. Measures such as tax concessions and fuel tax rebates often lay within the competence of other ministries. Often, funds for agriculture are also provided by local communities, international donors and perhaps from other sources. All these transfers must be taken into account to be able to cover total funds (line ministry budget and budgetary transfers to agriculture from other sources).

It is important to have detailed information about each implemented measure. In addition to the amount of the transfer, other data have to be collected for the analysis, such as the name of the measure, its legal basis and purpose, objective of the measure, beneficiary, commodity, implementation criteria, specific requests, and frequency. When collecting data on a particular measure, it is useful to thoroughly consider all these attributes. Based in its individual characteristics, a measure is allocated to the APM classification system.

2.4.2 Measures allocation

The first step in allocating measures is the formation of larger groups of measures. A special decision tree serves as a tool at this stage of allocation. As schematically presented in Annex 2, the decision tree functions by asking questions regarding the substance of a measure. The answers to the questions (only "yes" or "no") in most cases lead to allocation up to the level one step before the final allocation, i.e. the basic headings.

The final steps in the allocation process must be made directly in the APM input template. Other criteria are used in that stage. In some cases, mostly within *rural development* and *general support measures*, the final allocation can be made by following the name of measure group on the next level. In many other cases the type of payment is the main criteria (implementation criteria). In all groups of measures, which according to OECD criteria belong to the PSE (in most cases this is already defined at the group or sub-group level), the classification foresees the possibility of further division by the PSE classification. In the APM template for each basic heading, the PSE category or subcategory is already predefined. In these cases the final allocation is thus made based on PSE criteria.

Another label, which is also predefined in the APM template, is the EAA group of subsidies. Analysis by this criterion can be useful for assessing the impact of individual groups of measures on income from agriculture.

Additionally, in the APM tool there are two more labels which are useful for analytical purposes. The measures can also be classified by the beneficiary (agricultural producer; producer groups; food industry, etc.) and commodity (single commodity; group commodity; no commodity linked). For some basic headings those labels are also predefined. Comparing all predefined labels with characteristics of the specific measure should help allocate it correctly. For some basic headings, such as "other measures", it is impossible to predefine labels. Given the degree of disaggregation of the APM classification, there should not be many cases like this. In these cases it is up to the user to define the labels. Carefully checking the consistency of all labels is necessary.

2.4.3 Data input (filling in the database)

The data are only entered in the APM template at the level of basic headings. To ease processing at a later stage, sums at the group level are not entered. Each entry line contains the following data (in columns):

- Basic heading
- Basic heading text
- Number of measure (generated)
- Name of measure (input cell)
- Description (input cell)
- Beneficiary (predefined)
- Beneficiary (input cell; to confirm or change predefined label)
- Commodity code (input cell; extended EAA product code system)
- Commodity text (generated)
- PSE category acronym (predefined)
- PSE category acronym (input cell; to confirm or change predefined label)
- PSE category text (generated)
- PSE Product Code (generated)
- EAA group (predefined)
- EAA group (input cell; to confirm or change predefined label)
- Empty columns (hidden) for other country specific information or other classifications
- Year by year monetary data – budget expenditure by source (EUR million):

  Total (input cells if there is no data by source)

National agricultural budget (input cells)

Other national funds (input cells)

EU funds (input cells)

Other international funds (input cells)

The APM template (.xls spreadsheet) is a part of the APM database Excel file. The file includes codes and their cross-connections, therefore a part of the data do not need to be entered (they are generated automatically upon the entry of the basic data). A part of these data thus serve to control the correctness of entry.

2.5 APM standard analytical output

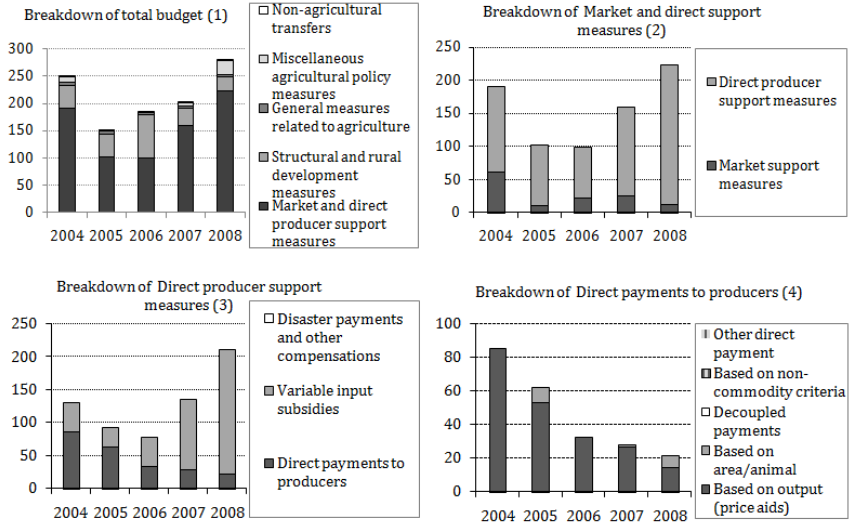
A special part of the APM tool is used to prepare data for substantive analysis. Analytical tables and figures are prepared for time series, both by the APM and PSE classification systems. Tables and figures are pre-prepared by hierarchical principle, which enables the generation of aggregate tables by various levels of data grouping. A standard set includes tables and figures from the most aggregated to the most detailed ones.

The hierarchical approach of the standard set of the analytical output naturally presumes a top-down approach of substantive analysis. The most aggregate level of the APM analytical presentation (total budgetary expenditure by pillars) provides information on the evolution of total budgetary expenditures related to agriculture over time, as well as providing the first relatively broad picture on the priorities of the agricultural policy and their changes. To enable a more detailed analysis of the agricultural policy measures, lower levels of presentations should also be examined.

Figure 9-9 shows an example of pre-prepared presentations from the most aggregate to the most detailed levels for analyzing the measures of the first APM pillar. In a similar manner, other agricultural policy pillars are included in the standard set of analytical output of APM.

Such a hierarchical approach is suitable for a detailed policy analysis; it provides useful information to the creators of agricultural policy and forms a solid basis for analyzing the realization of programs and goals. However, analyzing the main characteristics of agricultural policy is rather time-consuming and demanding.

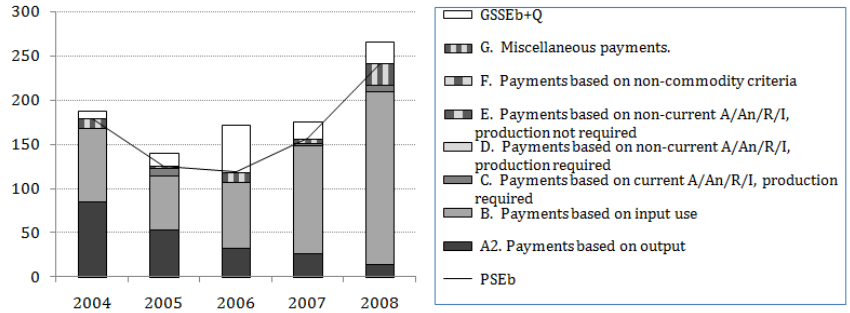
Figure 9-9: An example of APM first pillar breakdown (in EUR million)



Note: Data from APM database for Serbia.

The aggregates at the pillar level, as well as some groups (axes) merge measures that are too diverse to adequately reveal the characteristics of agricultural policy without more detailed disaggregation. Different aggregates must be formed for various analytical needs. The classification of measures by OECD criteria is one such approach that has already been included in the standard set of APM analytical output (Figure 9-10).

Figure 9-10: An example of APM Total budgetary transfers to agriculture breakdown according to OECD classification (EUR million)



Note: Data from APM database for Serbia.

OECD classification is completely distanced from the program documents of agricultural policies. Indeed, it uses the implementation criteria and classifies the measures mostly in terms of the degree of market distortion. These are very relevant data for the assessment of agricultural policy characteristics. At the aggregate level, the OECD classification thus reveals stronger messages than the APM classification. However, provided that the entire hierarchical process of analysis is carried out in the APM classification, the eventual basic findings are the same. In the examined case, both analytical approaches revealed that agricultural policy was unstable in terms of both the level of budgetary funds for agriculture and the type and form of supports. It is also clearly seen from both analyses that agricultural policy is extremely production-oriented and supported exclusively by market distorting measures.

The standard set of analytical output also provides other information, such as the volume of budgetary supports by products or groups of products and by sources of finance. It is also possible to easily adjust the pre-prepared presentations to suit various needs.

3 SUMMARY, CONCLUSIONS AND DISCUSSION ON THE USE AND FURTHER DEVELOPMENT OF APM

3.1 Summary and conclusions

The APM classification is primarily based on the classification of measures used in the EU, combined with OECD classification. Technically, the APM classification is based on a 5-digit code system, with the first digit of the code defining the pillar of agricultural policy, the second digit the category or axis, and each subsequent digit a sub category of the previous one. The main principle behind the classification is the substantive homogeneity of groups, the goal of which was for the groups to be homogenous at the highest possible level in terms of the EU program group, goals pursued by the measures, impact of the measures on the market, beneficiary and method of implementation. At least at the basic headings level, the groups are homogenous in terms of all the above criteria.

The most demanding part of creating the database based on APM classification is the allocation of an individual measure to the relevant APM group. The data on agricultural policy measures had to be collected at the most detailed level possible and then allocated according to specific criteria. A special decision tree was devised to ease the process of allocation and ensure the most uniform approach possible.

A special part of the APM databases is intended for the preparation of data for substantive analysis. Analytical tables and figures have been pre-prepared, both by the APM and PSE classification systems. The standard set includes a number

of presentations, from the most aggregate to the most detailed tables and figures. The main purpose of pre-prepared tables and figures was to provide a uniform analytical basis for agricultural policy analyses to be used in EU accession countries.

In the framework of the Agri-Policy project, a mostly complete APM database was established in 5 Western Balkan countries, whereas the APM classification was also tested in 6 EU New Member States. This is probably not a sufficient number to be able to claim that APM classification enables the rational distribution of all possible forms of support to agriculture. However, it proved to be useful for policy analysis. In Western Balkan countries, the uniform database and standard analytical output allowed a relatively uniform approach to the analysis of agricultural policies (presented in Chapters 1-8).

Further work on APM classification will depend mostly on the interest of its users. Certain adjustments will likely be needed for its potential wider use, and some problems and dilemmas still have to be resolved. Perhaps the most important issue is a terminology problem, as it is very difficult to clearly describe the substance of individual groups of measures, bearing in mind that the term should be concise and should not resemble any of the established terms which carry a different meaning.

3.2 Possible modifications of APM

One of the important goals of creating the APM analytical database is the formation of aggregates, which at the highest possible level provide the most relevant information for agricultural policy analysis. A more detailed analysis of APM classification revealed certain weaknesses in this regard. In some areas, using the EU's program approach to form aggregates proved to be less appropriate for the overall analysis of agricultural policy. Besides, the EU program approach, which served as a basis for the APM classification, is constantly changing because it is tailored only to a certain programming period. The expected CAP reforms may significantly change the current program concept. This, of course, may also ruin the established system of APM classification at higher levels of aggregation.

Work on the development and use of the APM classification led to the conclusion that most probably there is no ideal standard aggregation of agricultural policy measures. The form of aggregation has to be adapted to certain analytical goals. Important in this context, however, is to what extent this is allowed by a basic classification.

In order to verify the possibility of adapting APM classification for different approaches to policy analysis, various APM modifications have been examined. One, which is not so obviously influenced by the present EU program approach

and allows analysis of the agricultural policy based on the most aggregate level of classification, is aggregation measures into seven main pillars:

1. Market support
2. General income support
3. Decoupled direct payments
4. Targeted income support
5. On-farm restructuring support
6. Indirect support to agriculture
7. Support to the rural economy and population.

In this structure, the connection to the current EU pillars becomes less evident, while the link to the OECD concept is more direct. Pillars 1 and 7 include measures which are usually not a subject of PSE/GSSE. Pillar 6 consists of measures which, according to OECD methodology, belong to the GSSE, and pillars 2 to 5 to the PSE. Technically, modifying the APM classification is relatively simple.

Figure 9-11: Comparison between the existing and modified APM classifications of budgetary support to agriculture

Modified APM classification	APM classification
1. Market support	11000 Market support measures
2. General income support	12111 Direct payments based on output
	12112 Direct payments based on current area/animal 12114 Other direct payments
	12200 Disaster payments and other compensations to producers
	12120 Variable input subsidies
3. Decoupled direct payments	12113 Direct payments based on fixed criteria (decoupled)
4. Targeted income support	22100 Environment and landscape targeted payments to producers
5. On-farm restructuring support	21100 On-farm restructuring support
6. Indirect support to agriculture	21200 Agri-food restructuring support
	22200 Environmental payments not directly linked to agriculture
	23100 Support to on-farm diversification into non-agricultural activities
	30000 General measures related to agriculture
7. Support to rural economy and population	21300 Forestry support
	22300 Environmental payments to forestry
	23200 General support to rural economy and population
	23300 Building local capacity (LEADER)

The modified APM classification places greater emphasis on the market distortion criterion, and where relevant, also follows the program aspect of measures.

The measures in the first group – *market support* – belong to the most market-distorting measures, that is, measures where policy directly affects the prices of products. Although budgetary funds for these measures are not direct transfers to agricultural producers, they nonetheless exert indirect influence on their income. In the PSE, most budgetary expenditures for measures from this group are not presented, as it assesses these impacts directly through differences in prices (market price support – MPS). The assessment of MPS is a demanding analytical process based on a comprehensive database. Such a database is usually not available in transition countries. Thus, in cases where no MPS assessment exists, data on the volume of budgetary funds for market measures allow us to at least partly assess agricultural policy activity in this area.

Measures from the second group – *general income support* – are also market-distorting measures. These measures comprise all types of production-coupled payments and/or input subsidies, which also have a direct impact on production. A large share of funds in this group indicates an orientation towards production and income-oriented agricultural policy.

The measures in the remaining groups of the modified APM classification have a less pronounced influence, or none at all, on agricultural markets.

Decoupled direct payments were introduced in the EU after the last CAP reform in 2003. They are still general payments intended as a support to farmers' incomes, except the payments are no longer coupled to the production of one or a group of products. From the analytical point of view, a separate treatment of these payments is relevant, as it points to a shift from production-oriented agricultural policy to a more production-neutral policy, which is still target-oriented to the general support of incomes in agriculture.

The measures in the fourth group – *targeted income support* – also affect the incomes of agricultural producers, but this is not their primary goal. These measures are generally not available to all producers; they are target-oriented only to producers who, by their existence or production, also generate special, usually non-commodity goods that are of a general public interest, not only in the interest of agriculture. Such measures are targeted either to certain territorial areas (goal: preservation of settlement and cultural landscape) or to a certain method of production (environmentally-friendly technologies). Separating these "targeted" payments from generally accessible production-coupled or decoupled income payments provides additional information which can importantly contribute to the analysis of agricultural policy.

To be able to analyze the characteristics of agricultural policies, the measures under the fifth group – *on-farm restructuring support* – must also be treated separately. Important for the analysis is the relationship between direct income support (in our case, groups 2, 3 and 4) and the measures under the group 5 – *on-farm restructuring support*, which mainly cover investment support aimed at increasing productivity

and the technological efficiency of production. Although investment supports may also be understood as income supports, there are substantive differences, namely in goals, form and frequency of payments, and thereby related impacts on current income. These types of support are in substance more structural than income-support measures. Based on the comparison between direct income support and payments for *on-farm restructuring support*, one can assess whether a certain agricultural policy is more "income-oriented" or "development-oriented".

The main feature distinguishing the measures joined in the sixth group – *indirect support to agriculture* – from other measures is the fact that the budgetary funds for these activities are not granted directly to agricultural producers but to other economic subjects whose activities are in the interest of agriculture. By financing these activities, the policy mostly pursues the goals of greater competitiveness in the agricultural sector as a whole. This group comprises general measures for increasing production efficiency (extension, research, education), as well as measures for better and easier performance on the market (promotion, support to the processsing industry). Substantively, these measures can be classified as structural measures.

The last group of measures in the modified APM classification – *support to rural economy and population* – in terms of substance and goals, at least by the OECD criteria, do not represent support to agriculture. Although in substance, measures in this group belong to regional policy, in the EU they are a subject of agricultural policy. This part of agricultural policy is understood as a kind of supplement to agricultural and regional policy measures. As it covers the specific needs of the rural and thereby predominantly agricultural population, its measures can be said to represent one of the forms of support to agriculture.

An attempt to modify the APM classification shows that the system enables easy adaptation and thereby great flexibility of analytical approaches. From the analytical point of view, the main advantage of the modified APM classification is that it already allows quite a thorough substantive analysis of agricultural policy at the aggregate level of classification. This advantage is particularly obvious in wider international comparisons of policies that go beyond the scope of EU integration processes.

In a more detailed analysis, the system of classification at higher levels is not even particularly important. What is important is that at least at the lowest level, individual measures are merged into substantively homogeneous groups. As the APM classification meets this condition, it is relatively easy to form various larger groups, which can also be adapted to individual analytical needs. The modified APM classification described here is only one such possibility, and the very flexibility of analytical approaches which APM classification enables is most likely its greatest advantage.

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ANNEXES

Annex 9-1: APM classification and corresponding labels

APM code	Description	Beneficiary	OECD category	EAA group
10000	**MARKET AND DIRECT PRODUCER SUPPORT MEASURES**			
11000	**Market support measures**			
11010	Export subsidies	OT	nr	nr
11020	Market intervention			
11021	Intervention buying-in	OT	nr	nr
11022	Private storage aid	OT	nr	nr
11023	Food aid to third countries	OT	nr	nr
11030	Operational costs for public stockholding	OT	M	nr
11040	Consumers support	CC	Q	nr
11090	Other and miscellaneous market support measures	?	?	nr
12000	**Direct producer support measures**			
12100	**Direct payments and variable input subsidies**			
12110	Direct payments to producers			
12111	Direct payments based on output (price aids)	AP	A2	10
12112	Direct payments based on current area/animal	AP	C	30
12113	Direct payments based on fixed criteria (decoupled)	AP	E	30
12114	Other direct payments	AP	C; D; G	?
12120	Variable input subsidies			
12121	Subsidies for seeds and seedlings	AP	B1	20
12122	Subsidies for (breeding) animals	AP	B1	10
12123	Fuel subsidies; fuel tax rebates	AP	B1	20
12124	Fertilizer and pesticides subsidies	AP	B1	20
12125	Interests concessions for short run loans for agricultural production	AP	B1	20
12126	Insurance subsidies	AP	B1	20
12127	Other variable input subsidies	AP	B1	30
12128	Subsidies for on-farm services	AP	B3	20
12200	**Disaster payments and other compensations to producers**			
12201	Compensatory payments based on output	AP	A2	30
12202	Compensatory payments based on area/animal	AP	C	30
12203	Compensatory payments based on resource retirement	AP	F1	?50
12204	Compensatory payments for input purchase	AP	B1	30
12205	Other compensatory payments	AP	C;E;G	30
19000	Miscellaneous – Market and direct producers support	nal	nal	nal
20000	**STRUCTURAL AND RURAL DEVELOPMENT MEASURES**			
21000	**Improving the competitiveness of the agricultural sector**			
21100	**On-farm restructuring support**			
21110	On-farm investment support			
21111	Modernization of agricultural holdings	AP	B2	40
21112	Restructuring of permanent crops plantations (per hectare)	AP	C	
21113	Land improvement; irrigation; land consolidation	AP	B2;B3	
21114	Restoring agricultural production potential damaged by disasters	AP	B2	40
21120	Other on-farm restructuring support			
21121	Setting up young farmers	AP	B2	50
21122	Adapting to demanding standards	AP	B2	30
21123	Participating of farmers in food quality schemes	AP	B3	20
21124	Other on-farm support	AP	PSE	?50

21200	**Agri-food restructuring support**			
21210	General support to agricultural sector			
21211	Improving infrastructure related to agriculture	?	K	nr
21212	Early retirement	AP	K	nr
21213	Restructuring of semi-subsistence agricultural holdings	AP	K	nr
21214	Other support to agriculture	?	GSSE	nr
21220	Food processing support, marketing and promotion			
21221	Investments in food processing	FP	L	nr
21222	Marketing and promotion	?	L	nr
21223	Supporting producer groups	PG	L	nr
21224	Other support to agri-food industry	PG	L	nr
21300	**Forestry support**	nr	nr	nr
21900	**Miscellaneous (competitiveness)**	**?**	?	nr
22000	**Improving the environment and the countryside**			
22100	**Environment and landscape targeted payments to producers**			
22110	Payments to farmers in areas with handicaps (LFA)			
22111	LFA payments based on output	AP	A2	30
22112	LFA payments based on area	AP	C	30
22113	LFA payments based on animal numbers	AP	C	30
22114	Other LFA payments	AP	PSE	? 30
22120	Payments to farmers in protected areas (PA)			
22121	PA payments based on output	AP	A2	30
22122	PA payments based on area/animal	AP	C	30
22123	Other PA payments	AP	PSE	?; 30
22130	Agri-environmental and animal welfare payments to farmers (AE)			
22131	AE payments based on output	AP	A2	30
22132	AE payments based on area/animal	AP	C	30
22133	AE payments based on non commodity criteria	AP	F2	50
22134	Other AE payments	AP	PSE	? 30
22135	First forestation of agricultural land	AP	F1	50
22200	**Environmental payments not directly linked to agriculture**			
22210	Environmental payments to forestry	nr	nr	nr
22220	Other payments with environmental objectives	nr	nr	nr
23000	**Supporting rural economy and population**			
23100	**Support to rural population directly linked to farms**			
23110	Support to on-farm diversification into non-agricultural activities	AP	K	nr
23120	On-farm support to rural population – Other	AP	K	nr
23200	**General support to rural economy and population**			
23210	Business creation and development	nr	nr	nr
23220	Rural infrastructure and village development			
23221	Basic infrastructure and services for rural population	nr	nr	nr
23222	Village renewal and development	nr	nr	nr
23230	Other measures to support rural areas	nr	nr	nr
23300	**Building local capacity (LEADER)**	nr	nr	nr
29000	**Miscellaneous rural development measures**	?	?	?
30000	**GENERAL MEASURES RELATED TO AGRICULTURE**			
31000	**Research, development, advisory and expert services**			
31100	**Research and development projects**	PI	H	nr
31200	**Extension and advisory service**	PI	I	nr
31300	**Infrastructure related to vocational training**	PI	I	nr
31400	**Expert services**	PI	H	nr
32000	**Food safety and quality control**			
32100	**Veterinary control**	PI	J	nr
32200	**Plant health control**	PI	J	nr
32300	**Quality control**	PI	J	nr
33000	**Other general support measures**			

33100	**Farmer and other non-governmental organisation support**	PI	L	nr
33200	**Information systems**	PI	K	nr
33300	**Technical assistance**	PI	K	nr
33400	**Other**	PI	K	nr
40000	**MISCELLANEOUS AGRICULTURAL POLICY MEASURES**	nal	nal	nal
50000	**OTHER TRANSFERS (not to agriculture)**			
51000	**Social transfers to agricultural sector**	nr	nr	nr
52000	**Budgetary transfers to other sectors**	nr	nr	nr
53000	**Administrative and other costs**	nr	nr	nr
59000	**Unspecified non-agricultural budgetary transfers**	nr	nr	nr

Notes:

Beneficiary:

AP Agricultural Producer
CO Consumers
PG Producer Groups
FP Food Processing industry
PI Public Institutions
OT Other beneficiary

EAA group

10 Subsidies on product
20 Subsidies on input
30 Subsidies on production
40 Investment grants
50 Other transfers

nr Not relevant
nal Not allocated

OECD category:

Producer budgetary support estimate (PSEb)
A2 Payments based on output
Payments based on input use
B1 Variable input use
B2 Fixed capital formation
B3 On-farm services
C Payments based on current A/An/R/I, production required
D Payments based on non-current A/An/R/I, production required
E Payments based on non-current A/An/R/I, production not required
Payments based on non-commodity criteria
F1 Long-term resource retirement
F2 Specific non-commodity output
F3 Other non-commodity criteria
G Miscellaneous payments
General Services Support Estimate (GSSE)
H Research and development
I Agricultural schools
J Inspection services
K Infrastructure
L Marketing and promotion
M Public stockholding
N Miscellaneous
Consumer Support Estimate (CSE)
Q Transfers to consumers from taxpayers

Annex 9-2: Decision tree for measure allocation

STEP 1

1/1 *Does the measure provide payment to cover the costs of administrative bodies and services?*

Yes: **Administrative costs (53000; non PSE/GSSE)** Next steps: beneficiary criteria (optional)

No: ⇩

1/2 *Does the measure provide payment to non-agricultural sectors?*

Yes: **Transfers to other sectors (52000; non PSE/GSSE)** Next steps: beneficiary criteria (optional)

No: ⇩

1/3 *Does the measure have a social character?*

Yes: **Social transfers to agricultural sector (51000; non PSE/GSSE)**

No: ⇩

BUDGETARY SUPPORT TO AGRICULTURE GO to STEP 2

STEP 2 **BUDGETARY SUPPORT TO AGRICULTURE**

2/1 *Does the measure provide payment to institutions providing general services to support agriculture development?*

Yes: **Pill. 3: General measures related to agriculture (30000; GSSE)** Next step: beneficiary & OECD GSSE criteria

No: ⇩

2/2 *Does the measure influence farm income (higher price, lower variable costs)?*

Yes: ⇩

No: **Pill. 2: Structural and rural development measures (20000) GO STEP 3.2**

2/3 *Does the measure have a general character without specific requirements regarding production method, location of farms, etc.?*

Yes: **Pill. 1: Market and direct producer support measures (10000) GO to STEP 3.1**

No: **Pill. 2: Structural and rural development measures (20000) GO to STEP 3.2**

STEP 3.1 **Pill. 1: Market and direct producer support measures (10000)**

3.1/1 *Does the measure provide payment to individual producers?*

Yes: **Direct producer support measures (12000; PSE)** ⇩

No: **11000 Market support measures** Next step: OECD PSE criteria

3.1/2 *Does the measure provide payment to individual producers on a regular basis?*

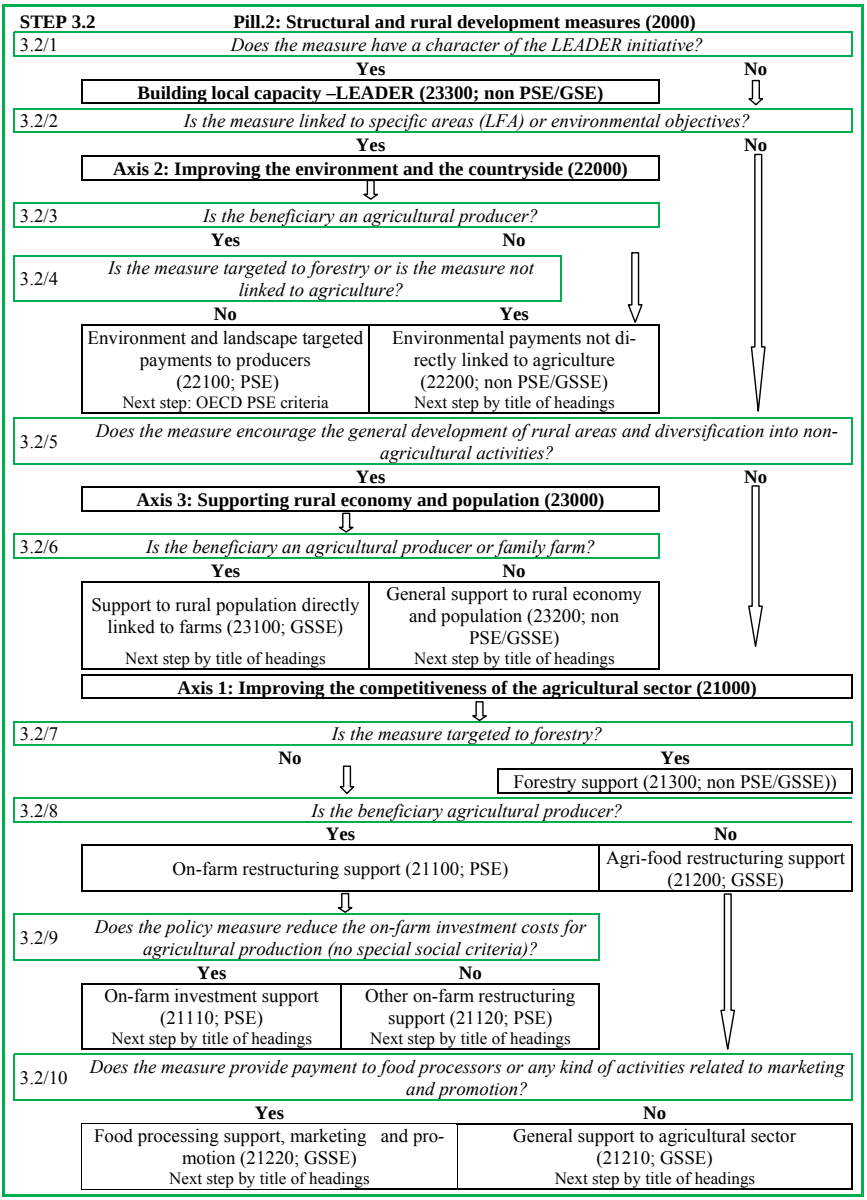
Yes: Direct payments and input subsidies (12100; PSE) ⇩

No: Disaster payments and other compensations to producers (22200; PSE) Next steps: OECD PSE criteria

3.1/3 *Does the measure provide payment to individual producers using specific input, group of inputs or services (except advisory service, certification and control service and training costs)?*

Yes: Input subsidies (12120; PSE) Next steps: allocation by groups off inputs

No: Direct payments to producers (12110; PSE) Next steps: OECD PSE criteria


STEP 3.2
Pill.2: Structural and rural development measures (2000)
3.2/1
Does the measure have a character of the LEADER initiative?
Yes
No
Building local capacity –LEADER (23300; non PSE/GSE)
3.2/2
Is the measure linked to specific areas (LFA) or environmental objectives?
Yes
No
Axis 2: Improving the environment and the countryside (22000)
3.2/3
Is the beneficiary an agricultural producer?
Yes
No
3.2/4
Is the measure targeted to forestry or is the measure not linked to agriculture?
No
Yes
Environment and landscape targeted payments to producers (22100; PSE) Next step: OECD PSE criteria
Environmental payments not directly linked to agriculture (22200; non PSE/GSSE) Next step by title of headings
3.2/5
Does the measure encourage the general development of rural areas and diversification into non-agricultural activities?
Yes
No
Axis 3: Supporting rural economy and population (23000)
3.2/6
Is the beneficiary an agricultural producer or family farm?
Yes
No
Support to rural population directly linked to farms (23100; GSSE) Next step by title of headings
General support to rural economy and population (23200; non PSE/GSSE) Next step by title of headings
Axis 1: Improving the competitiveness of the agricultural sector (21000)
3.2/7
Is the measure targeted to forestry?
No
Yes
Forestry support (21300; non PSE/GSSE))
3.2/8
Is the beneficiary agricultural producer?
Yes
No
On-farm restructuring support (21100; PSE)
Agri-food restructuring support (21200; GSSE)
3.2/9
Does the policy measure reduce the on-farm investment costs for agricultural production (no special social criteria)?
Yes
No
On-farm investment support (21110; PSE) Next step by title of headings
Other on-farm restructuring support (21120; PSE) Next step by title of headings
3.2/10
Does the measure provide payment to food processors or any kind of activities related to marketing and promotion?
Yes
No
Food processing support, marketing and promotion (21220; GSSE) Next step by title of headings
General support to agricultural sector (21210; GSSE) Next step by title of headings

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