7. CASE STUDY: SERBIA

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7.1. Introduction

Agriculture is an economically and politically important sector in Serbia. The agricultural sector in 2019 accounts for around of 11.7 % of GVA and employs 19.1 % of the total labour force (MAFWM, 2019b). Serbian agriculture is characterised by a consistent positive foreign trade balance, underutilised resources and production potentials, underdeveloped agri-food chains, the marginalisation of rural areas, etc. A limitation in the research on socioeconomic issues is the lack of information and an adequate methodology for monitoring at the state level. In previous decades, the agricultural policy in Serbia was quite inconsistent, characterised by changing political and economic aims, a satisfaction of farmers' social needs and market disturbances. Currently, the budgetary support for agriculture and rural development is around 5 % of the national budget, with direct subsidies dominating. Serbia gained candidate status on 1 March 2012. As of December 2017, the IPARD II programme began in Serbia.

This chapter analyses Serbian agriculture in terms of the existing policy and institutional framework, the state of the agricultural sector, the structure of budgetary support, recent trends, the sector's output and foreign trade, the main developments in key subsectors and the basic characteristics of farm structure. Special attention is paid to the role of European integration in the context of agriculture and rural development. The analysis of the agricultural sector is based on the agricultural statistics database ([36]) and the APM database ([37]), as well as national statistics data provided by the Statistical Office of the Republic of Serbia (SORS). Data on budgetary transfers are collected from the Ministry of Agriculture, Forestry and Water Management (MAFWM) and classified according to the APMC template to enable comparison with other WB countries/territories and the EU CAP. The analysis covers 2010–2019, with particular focus on the situation and changes in recent years, namely from 2017 to 2019.

7.2. State of the agri-food sector

During the period reviewed, agriculture remained a sector that played a significant role in the national economy (Table 27). Agriculture is an important sector in the Serbian economy, although its contribution to GVA has been slowly decreasing, reaching 11.7 % in 2019. The agriculture sector employs 19.1 % of the Serbian workforce and has a consistent positive foreign trade balance.

The negative effects of the global economic crisis were noticeable, affecting several of the main economic indicators, while, in the middle of the period analysed, the effects of floods had a negative influence on some sectors, especially agriculture. The second half of the period was characterised by a steady positive trend in most indicators.

One of the main structural issues in Serbia is unfavourable farm structures and low productivity. However, there are growing trends in the average wheat and maize yields, which provide a strong export base in the cereals production sector. In addition, average milk yield also increased over the past decade; therefore, although there was a reduction in the number of dairy cows, the amount of milk produced remained unchanged (Table 27).

The structure of farms regarding UAA size has improved slightly, as some small farms (up to 1 ha) have upgraded to a higher UAA size category. The majority of farms (about one third of all farms) utilise from 1 to 3 ha, but these farms represent only 10.3 % of UAA. In addition, 11 % of farms cultivate over 10 ha of UAA, covering 57.5 % of total UAA (SORS, 2013).

According to the 2018 farm structure survey data, (SORS, 2018), there are 1.93 million livestock units in Serbia, a decrease of 4 % compared with the 2012 census data. About 77 % of farms own some livestock. The average number of livestock units per farm is 4.4, indicating a predominance of small herds and a limited scope of the production (market oriented). The majority of farms (35.7 %) breed between 1 and 3 livestock units, while almost 70 % of farms have up to 3 livestock units. Only 0.5 % of farms breed more than a quarter of the total number of livestock units in the country.

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([36]) The agricultural statistics database was compiled for Serbia under the SWG Institute for Prospective Technological Studies (IPTS) projects (http://app.seerural.org/agricultural-statistics/).

([37]) The agricultural policy measures database was compiled for Serbia under the SWG IPTS projects.

About 1 336 940 persons were engaged in agriculture in 2018 (7.4 % less than in 2012), of which 98.5 % is the family labour force. The total number of annual work units (AWUs) was 645 733 in 2018, of which 91.6 % originated from the family labour force. The AWUs per holding was 1.14 in 2018, which was 11.4 % more than in 2012, while the AWUs per hectare of UAA and per livestock unit stayed the same as in 2012 (0.19 and 0.33, respectively).

Table 27. Serbian agriculture's contribution to the economy and characteristics of the agricultural sector

Characteristic	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
% of GVA	12.2	13.3	12.1	13.2	13.0	12.6	12.8	11.7	11.7	:
% of employment	26.2	25.2	25.4	25.4	23.7	23.4	22.5	21.0	19.8	19.1
Agri-food exports (% of total exports)	23.0	23.2	24.1	19.1	20.8	21.6	21.8	19.4	17.5	18.5
Agri-food imports (% of total imports)	6.6	7.4	8.3	7.9	8.0	9.1	7.8	9.5	7.8	7.8
Agri-food export-to-import rate (%)	207.7	185.8	174.5	172.1	187.4	175.0	214.5	158.2	166.5	173.3
UAA (thousand hectares)	3 521	3 528	3 462	3 495	3 518	3 480	3 456	3 438	3 487	3 482
% of arable land in UAA	75.4	74.8	74.0	74.1	74.1	74.4	75.2	75.5	74.1	74.1
% of crops in total agricultural production	70.5	69.1	64.5	67.0	66.9	65.8	71.1	65.7	67.6	:
Average wheat yield (t/ha)	3.4	4.2	4.0	4.3	3.9	4.1	4.8	4.1	4.6	4.4
Average milk yield (t/dairy cow)	2.9	3.0	3.0	3.3	3.4	3.6	3.6	3.6	3.6	3.6

:, not available.

Source: SORS 2020.

The age distribution of farm holders is not favourable, as the average age of farm holders is 61 years (2 years older than in 2012), with 42.8 % of holders over 65 years of age. Only 3.1 % of holders are younger than 35 years and 7.1 % of farm holders are under 40 years of age. The gender structure is also not favourable, as females make up only 15.3 % of all farm holders. The educational structure shows that the majority of farm holders carry out their business based on experience gained through practice (48.6 %), while 45.2 % have a high school education and 6 % have a university degree (SORS, 2013).

The average standard output per holding has been increasing significantly since the 2012census data – according to farm structure survey data, the average standard output in 2018 was EUR 9 457 (EUR 5 918 in 2012). The distribution of standard output has also improved, with 27.7 % of holdings having a standard output of less than EUR 2 000 per holding (this was 45.9 % in 2012), while 23.5 % have a standard output between EUR 2 000 and EUR 4 000, similar to the proportion of holdings with a standard output between EUR 4 000 and EUR 8 000 (23.1 %). Vojvodina kept its position as having the highest values regarding average standard output (SORS, 2013).

Agricultural production in Serbia is based largely on crop production, which constitutes about two thirds of agricultural output. In 2018, crop production accounted for 67.6 % of agricultural output, while livestock output accounted for 29.9 %. Both indicators are at a similar level to 5 years previous. However, owing to the characteristics of crop production itself (i.e. the seasonal impact), the proportion of crop production in agricultural output has varied between 64.5 % and 71.1 % in the last decade (MAFWM, 2019b).

The most significant contributions to Serbian agriculture in terms of resources, production potential and their growing trend can be considered the production of cereals, oilseeds, fruit and vegetables, beef and veal, and milk and dairy products. Serbia's organic production segment has seen marked growth, both in plant and in livestock production. The area under organic production reached about 9 000 ha in 2018, five times more than in 2012. More than one third of the area is covered by orchards, and other common organic crops include wheat and oilseeds (MAFWM, 2019b).

Agriculture's contribution to GVA has shown a steady trend that has followed the increase in total output and input consumption in the period analysed. Subsidies on products represent, on average, 8 % of total output at

producers' prices, but the absolute level of subsidies has been growing, reaching a maximum of EUR 491 million in 2019. Feeding stuffs make up the most significant proportion of total intermediate consumption (34.6 % on average), ranging between EUR 960 million and EUR 1.1 billion in 2010–2018. Energy makes up 12.7 % of total intermediate consumption, while other goods and services make up about 13 %. On the other hand, plant protection products, veterinary expenses and agricultural services contribute only 3.6–5.5 % of total intermediate consumption (MAFWM, 2019a).

After significantly lower levels of price indices in 2010 and 2011 (compared with 2015), nominal price indices varied within the limits of ±10 % in the period that followed. In 2019, total agriculture price indices were 2.4 % higher than in 2015 and 2.7 % higher than in 2018 (MAFWM, 2019a).

The agriculture and food industry remains one of the few sectors in the Serbian economy with a positive foreign trade balance. The foreign trade of agricultural and food products in 2019 accounted for EUR 5.11 billion. The foreign trade in 2019 was 11.8 % higher than in 2018 and 21.5 % higher than the 5-year average. Both exports and imports of agricultural and food products continue to grow – in 2019, exports reached a value of EUR 3.24 billion (13.7 % higher than in 2018) and imports amounted to EUR 1.86 billion (8.6 % higher than in 2018). This relationship between exports and imports resulted in a positive trade balance at the level of EUR 1.38 billion, which was 21.2 % higher than in the previous year. The import coverage ratio of agricultural and food products in 2019 was 1.74 (MAFWM, 2019a).

The structure of the foreign trade balance is not favourable; Serbia imports mainly high-value products, while exporting mainly raw agricultural products. Raw agricultural products traditionally dominate in the structure of exports and imports in terms of the level of product processing. In both segments (exports and imports), primary agricultural products were still dominant in 2019, making up 72 % and 62 %, respectively. Processed agricultural products account for slightly more than a quarter of the value of exports (27 %), while they account for a third of the imported value (33 %). Traditionally, the EU is the most significant export destination for agricultural and food products from Serbia, as almost half of the export value (48.9 %) is delivered to the EU market. Central European Free Trade Agreement (CEFTA) countries are the export destination for 28.5 % of exports, and 22.5 % of products were sold in other countries (MAFWM, 2019a).

Most of imported agricultural and food products originate from EU countries, making up 65.3 % of the imported value. About a quarter of imports (25.2 %) were from other countries and 9.5 % were from CEFTA countries. Among other countries, Russia is Serbia's most significant trade partner, as one third of trade with EU and CEFTA countries represents trade with Russia. This trade is supported by the free trade agreement between the two countries and preferential access for their products (MAFWM, 2019a).

7.3. Socioeconomic issues underlying rural areas

One of the most important limitations in research of rural socioeconomic issues is that the socioeconomic indicators ([38]) in Serbia at the state level are not established completely. Predominantly rural regions are represented by the two types of settlements: 'urban' and 'other'. Serbia uses the simple OECD regional typology (at the local level, the population density criterion). This classification has proved in practice to be insufficient. A second limitation is that Serbia has not prepared a typology of the region (a classification of NUTS level 3 areas) ([39]) according to the urban–rural typology recommended by the Directorate-General for Agriculture and Rural Development ([40]).

The lack of socioeconomic indicators is obvious. A number of indicators per type of region are missing. In more detail, the indicators missing in this segment are the following: population, according to the urban–rural typology; age structure, according to the urban–rural typology (predominantly rural, intermediate and predominantly urban regions); territory, according to the urban–rural typology (predominantly rural, intermediate and predominantly urban regions); employment and unemployment rate, according to the degree

([38]) The socioeconomic and other common context indicators are used as a framework for monitoring and evaluating the CAP and rural development policy in the EU countries.

([39]) For the 2021 census (once the SORS has the available data on the spatial distribution of the population up to the level of the house number and has formed a network of population grids of 1 km^2), the SORS is expected to classify the spatial units for the municipality level (LAU level 2), according to the degree of urbanisation in accordance with the degree of urbanisation (DEGURBA) classification, which will be the basis for the development of the typology of the region (NUTS level 3), according to urban–rural typology of the European Commission (predominantly urban regions, intermediate regions and predominantly rural regions).

([40]) For more information, see Eurostat's degree of urbanisation territorial typologies manual (https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Territorial_typologies_manual_-_degree_of_urbanisation).

of urbanisation LAU level 2 spatial units (scarcely/intermediate/densely populated areas); and GDP per capita, according to the urban–rural typology (predominantly rural, intermediate and predominantly urban regions).

In addition, the SORS does not monitor employment, total or by sector of activity, according to the concept of national accounts, which makes it impossible to calculate the derived indicator 'Labour productivity, total and by sector: primary, secondary and tertiary sector'. The SORS collected data on the number of employees according to the concept of national accounts for 2015–2017, but these data are experimental and not for public use. It is necessary to continue further harmonising the SORS methodology with that of Eurostat, and to introduce new, currently missing, indicators by the SORS, especially in the segment of national accounts and economic accounts of agriculture. Additionally, it will be crucial to establish a classification of spatial units at the municipal level (LAU level 2) according to the degree of urbanisation methodology, and to apply the European Commission urban–rural typology at the area level (NUTS level 3), as only a proper definition of rural areas can provide the basis for establishing relevant indicators for assessing the state of development of rural areas.

According to the existing data, the rural population of Serbia is made up of 2.73 million people, making up about 39 % of the total population. The number of inhabitants living in rural areas, and their proportion of the total population, has slightly decreased, reaching its lowest level at the end of 2018 (MAFWM, 2019a). This negative trend is caused by migration into urban areas and follows a general trend in Europe.

The total number of employees in the agricultural sector has also decreased, reaching 452 700 (15.6 % of total employment). With an average net monthly salary of EUR 402 (and an average gross monthly salary of EUR 555), employees in agriculture receive 14 % less than the national average net monthly salary. The active workforce rate of the total population was 54.6 % in 2019. The majority of this workforce are male (63 %), with a similar gender distribution also in the employment rate. The unemployment rate has seen a downwards trend in the last decade, reaching its lowest level in 2019 at 10.4% (MAFWM, 2019a). The majority of unemployed people are women.

Regarding the education of the labour force, the most dominant group are people with a high school education in all categories. About 57 % of employees have a high school education, while those with a higher education accounted for 26 %. Within the unemployed population, 62 % have a high school education (SORS, 2013).

Concerning the structure of the labour force according to age, those between 34 and 65 years of age dominate in all categories, making up 68 % of the employed population and 52 % of the unemployed population (SORS, 2013).

7.4. National policy framework

In the last decade, there appreciable progress has been made in adopting legal and strategic documents that define the long-term strategic goals of Serbian agriculture and the pathway for the implementation of agricultural and rural development policies. The EU negotiating process itself had a significant influence on these activities, in particular after 2013.

Currently, agricultural and rural development policies are based on several strategic and legal documents, governing the implementation of agricultural and rural development support. Two basic legal acts establish the legal framework for the implementation of subsidies. First, the law on agriculture and rural development (Official Gazette of the Republic of Serbia Nos 41/09, 10/13 and 101/16) establishes the basic bodies, mechanisms and instruments and provides the environment for the implementation, monitoring and evaluation of policies. Second, the law on subsidies in agriculture and rural development (Official Gazette of the Republic of Serbia Nos 10/13, 142/14, 103/15 and 101/16) defines subsidies in agriculture and rural development (direct payments, rural development measures, credit support, specific subsidies and IPARD measures), the manner of implementation, beneficiaries, eligibility criteria, the requirements for exercising the right to subsidies and the minimum level of support per measure.

The allocation of budgetary funds, allocated to the subsidies within the MAFWM's budget, is carried out annually by the regulation on the allocation of subsidies in agriculture and rural development for a calendar year. This regulation defines allocated funds per type of subsidy and the maximum level of support per measure, which will be implemented in a calendar year. It is adopted by the government, within 30 days of the adoption of the budget of the Republic of Serbia for a calendar year.

Several strategic and programme documents direct agriculture in the long and medium term. The main strategic document, which provides a strategic framework for medium-term programmes, is the strategy for the

agriculture and rural development of the Republic of Serbia for 2014–2024. The strategy defines the strategic framework, vision and objectives, indicators, and measures and activities for achieving defined strategic goals in the 10-year period. The strategy takes into account the process of EU integration and the necessary activities for working towards Serbian membership in the EU.

The vision of the development of agriculture and rural areas in Serbia reflects the projected state of the agricultural sector. The vision is as follows: (i) agriculture in Serbia is a sector whose development is based on knowledge, modern technologies and standards that offer national and demanding foreign markets innovative products and provides producers with sustainable and stable income and (ii) natural resources, the environment and the cultural heritage of rural areas are managed in accordance with the principles of sustainable development, in order to make rural areas attractive for young people to live and work in, as well as for other people living in rural areas.

The strategy defines five strategic goals: (i) a growth in production and an improvement to the stability of producers' incomes, (ii) an increase in competitiveness while adapting to the demands of domestic and foreign markets and the technical and technological progress of the agricultural sector, (iii) achieving sustainable resource management and environmental protection, (iv) an improvement in the quality of life in rural areas and poverty reduction and (v) achieving effective management of public policies and the improvement of the institutional framework for the development of agriculture and rural areas.

Based on the strategy, two medium-term programmes have been adopted, containing detailed 3-year plans and dynamics for the implementation of the policy, as well as the main activities for the harmonisation of the national agricultural and rural development policies with the appropriate CAP schemes in the pre-accession period.

The national agriculture programme for 2018–2020 provides a strategic medium-term framework for the implementation of direct payments, credit support and specific subsidies in 2018–2020. The national agriculture programme also defines the dynamics of the transposition of these schemes towards the CAP, as well as an estimated budget and indicators, which are the basis for monitoring, evaluation and reporting results.

The national programme for agriculture for the period 2018 - 2020 defines national rural development measures only. The document completing the rural development policy in Serbia is the IPARD II programme, which is the basis for the implementation of IPARD measures in 2014–2020, co-financed by the European funds. The IPARD II programme for 2014–2020 aims to strengthen the competitiveness of the production and processing sector, which will help in the gradual adaptation to the EU standards in the areas of hygiene, food safety, veterinary and environmental protection, and the diversification of the rural economy. IPARD II offers investment support at a value of about EUR 225 million, of which EUR 175 million is EU contributions. There are six IPARD II programme measures: (i) investments in physical assets of agricultural holdings (44 % of the total allocation; measure 1); (ii) investments in physical assets for the processing and marketing of agricultural and fishery products (38 %; measure 3); (iii) agri-environmental-climate measures and organic production (4 %; measure 4); (iv) the implementation of local rural development strategies – the LEADER approach (3 %; measure 5); (v) the diversification of agricultural holdings and business development (9 %; measure 7); and (vi) technical assistance (2 %; measure 9).

The implementation of the IPARD II programme in Serbia began at the end of 2017, while the official accreditation came into force on 12 June 2018 with the signing of the financing agreement between the Government of the Republic of Serbia and the European Commission. Currently, the IPARD II programme is implemented through measures 1, 3, 7 and 9, and a procedural framework for the accreditation of measures 4 and 5 is being prepared.

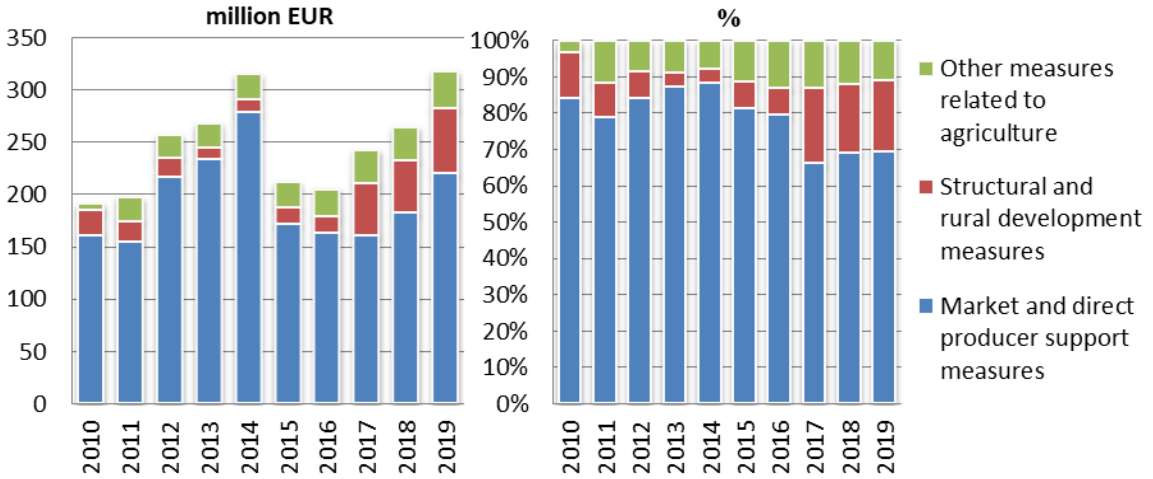
The IPARD funds used are lower than planned (for measure 1, EUR 6.103 million was used, and this made up the total funds used in the IPARD II programme in 2017–2019, as there were no disbursements for measure 3). The most important factors that influenced the deviation of the implementation of the IPARD II programme from the plan were (i) a delay in the accreditation of all planned measures, (ii) a longer application-processing period at all stages, (iii) uncertainty among applicants regarding the exercising of their rights to IPARD II assets, (iv) a lack of opportunities to use support in the financing of IPARD projects, (v) administrative obstacles for the involvement of more beneficiaries, such as the inability to initiate start-up investments (beneficiaries of both measures 1 and 3 must prove, when applying, that they are already engaged in the sector), facilities on the Directorate-General for Health and Food Safety list not applying, etc., (vi) the submission procedure in terms of the need for three offers and (vii) insufficient information about beneficiaries (which the analysis showed to be the most common reason for rejection).

In a broader sense, the agricultural and rural development policy is directed partially by certain national documents, prepared as a part of the negotiating process, with the goal to provide a plan for the harmonisation of national legislative with the *acquis*. The national programme for adoption of the *acquis* is a detailed, multi-annual plan for harmonisation of the domestic legislation with the EU legislation. It connects European legislation and the domestic legal system, in order to monitor the dynamics, scope and quality of the harmonisation at all times. In the national programme for adoption of the *acquis*, the EU *acquis* is presented in accordance with the competence of state bodies as the leaders of negotiations in the negotiation chapters, which enables regular planning and monitoring of their legislative activities. The action plan for the harmonisation, adoption and implementation of the EU *acquis* in the field of agriculture and rural development has been prepared as a part of fulfilling the opening benchmarks for Chapter 11. The action plan provides the manner and dynamics through which the national policies will be adjusted in line with the CAP policies. The action plan was adopted by the government and delivered to the European Commission at the end 2018.

7.5. Measures and budgetary support for agriculture and rural development

Budgetary support for Serbian agriculture, after a decline in 2015, experienced a resurgence in 2016–2019 (Figure 53). The highest budget support was achieved in 2019 at EUR 318 million. The budgetary support is characterised predominantly by first pillar measures (direct support mostly), with a noticeable increase in structural and rural development measures in 2017–2019.

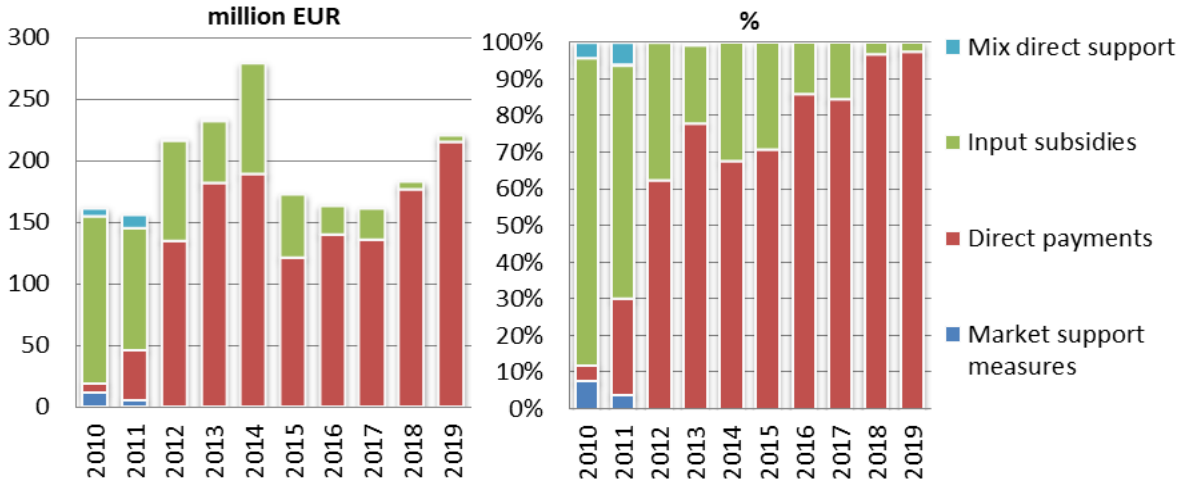
Figure 53. Total budgetary support to agriculture (2010–2019)



Source: RS APMC database (2020).

Market and direct support measures are dominant in budgetary support; these measures reached their maximum in 2014 (EUR 279 million, which was almost 90 % of total support) and decreased to around EUR 240 million (i.e. 70 % of total support) in 2019. All direct payments to producers in the previous period were coupled direct payments (Figure 54).

Figure 54. Market and direct producers support measures (2010–2019)



Source: RS APMC database (2020).

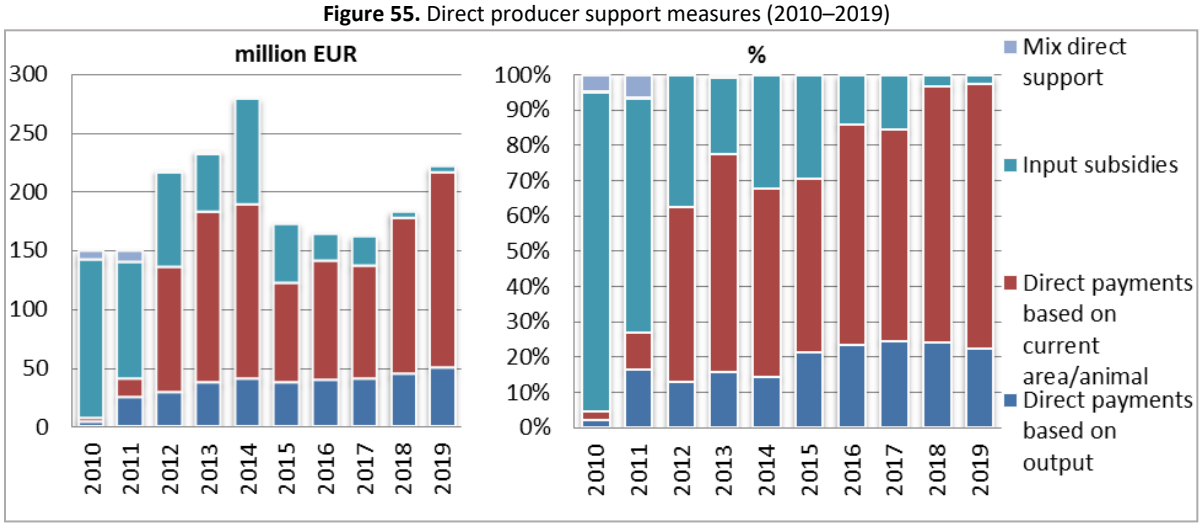
After 2011, the market measures, which were based on export subsidies only, were abolished in accordance with the World Trade Organization (WTO) negotiating process, as this measure was not in line with the WTO trade policy. There has been a tendency towards decreasing input subsidies (excluding insurance premium subsidies) and their transformation into direct payments to producers (per head/area), directed by the plan for the harmonisation of national direct payments with the CAP. Variable input subsidies saw a decreasing trend in 2010–2019. At the beginning of the period, input subsidies contributed about 70 % to total support for agriculture, with the highest level being EUR 135.1 million. In the following years, variable input subsidies decreased, reaching EUR 5.1 million at the end of the period analysed. Subsidies for insurance premiums grew, in terms of both allocated funds and number of beneficiaries.

The direct payments based on output (price support) had showed a strong upwards trend over the last decade, reaching a maximum of EUR 50 million in 2019, almost 14 times higher than in 2010. The only scheme for this type of subsidy is milk premiums, which is one of the long-lasting support measures in Serbian agricultural policy.

Direct payments based on area/animal have increased over the last 10 years (Figure 55). After the implementation of the law on subsidies in agriculture and rural development, there was a significant increase in funding for this type of subsidy, with a maximum amount of EUR 166 million in 2019 (75 % of direct support). A drop in the funds level was seen in 2015–2017, caused by the rationalisation of the Serbian budget.

Direct payments based on area are paid for sown arable land and were limited to a maximum of 20 ha per holding from 2015. Direct payments based on animals were introduced by the law on subsidies in agriculture and rural development in 2013, including subsidies for quality breeding animals, subsidies for cattle, pigs, lambs and kids fattening, subsidies for suckler cows, subsidies for cows for breeding calves for fattening, subsidies for beehives and subsidies for fish production.

Figure 55. Direct producer support measures (2010–2019)



Source: RS APMC database (2020).

Support for rural development experienced a downwards trend for most of the period analysed (2010–2016) and then saw a significant increase from 2017, achieving a maximum of EUR 62.2 million in 2019, namely 2.6 times higher amount than in 2010. One of the reasons for this increase could be the introduction of IPARD measures (and EU co-financing) and the release of funds for national rural development measures. The allocated fund for IPARD II is EUR 175 million from the EU and EUR 50 million from the national budget ([41]). Nevertheless, the IPARD funds used were much lower than those planned and hence the actual budgetary contribution is still small. Regardless of the overall level of funds for rural development throughout the whole period, most of the budgetary funds were intended to improve competitiveness, namely 92 % on average (Figure 56).

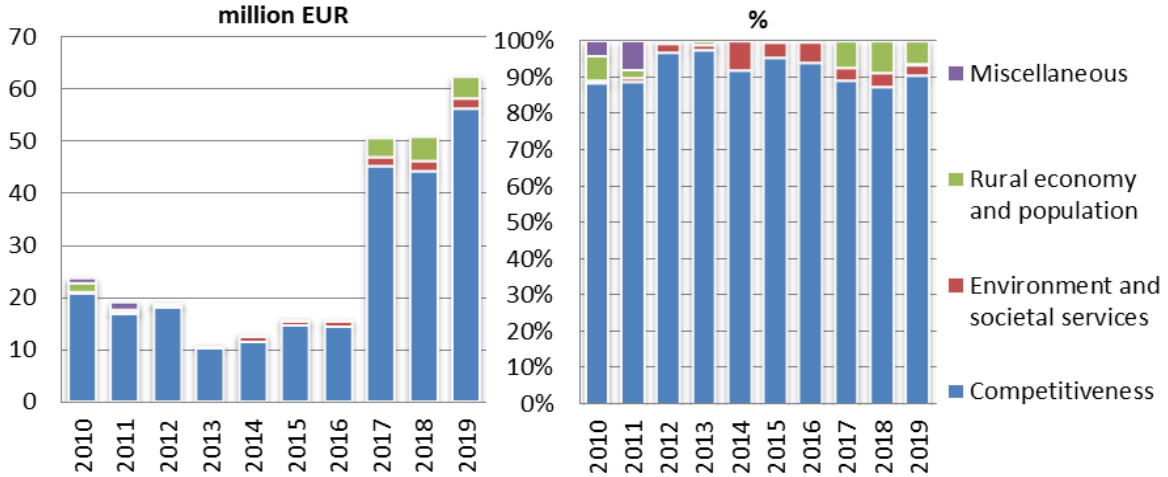
Support for rural development in terms of on-farm investment during the last decade has been increasing steadily. Furthermore, these funds make up the majority of the rural development funds, namely 57 % in 2010 and as high as 94 % in 2016. On-farm investment support reached its maximum value in 2019, namely EUR 55.8 million (90 % of rural development funds and 17.5 % of total support for agriculture).

Support for the processing and marketing of agricultural products includes subsidies for improving the quality of wine and spirits, as well as for the procurement of equipment in the meat, milk, fruit, vegetables, grape, wine, spirits and beer production sectors. The current support level is 50 % of the investment value and, in areas with difficult working conditions, 65 % of the investment value.

The agri-environment measures slightly increased over the period analysed, but are still at a low level. This type of support includes subsidies for the conservation of plant and animal genetic resources and subsidies for organic production. The IPARD II agri-environmental measure is in the accreditation process. Subsidies for organic production are calculated based on the amount of support in conventional production (direct payments based on area/animal) increased to 120 % in plant production and 40 % in livestock production, currently.

([41]) For more information on IPARD II, see the IPARD programme for the Republic of Serbia for 2014-2020 and Official Gazette of the Republic of Serbia, 'Conclusion on the adoption of the IPARD programme for the Republic of Serbia for the period 2014–2020' (Nos 30/2016-3, 84/2017-30, 20/2019-22, 55/2019-55).

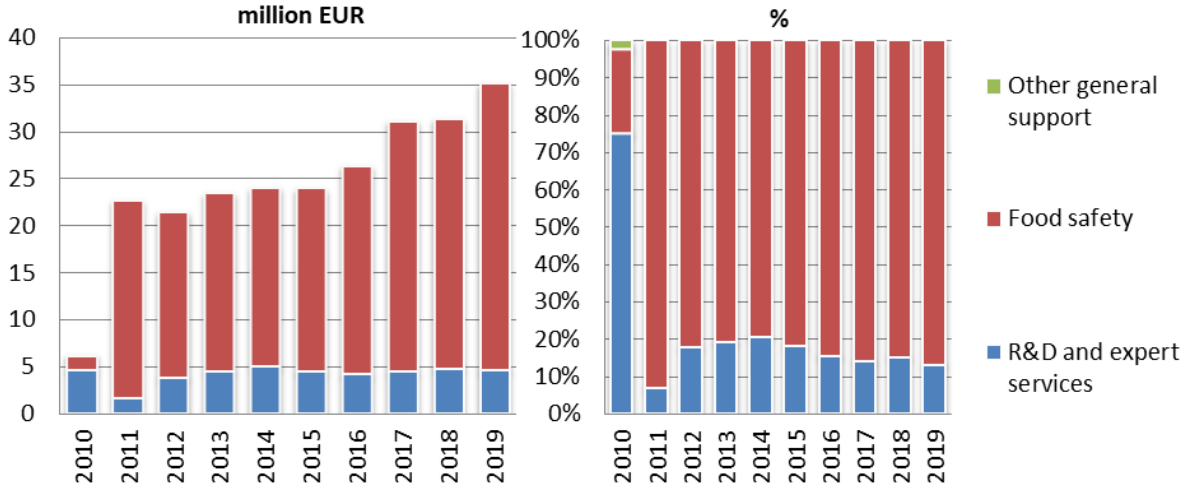
Figure 56. Structural and rural development measures (2010–2019)



Source: RS APMC database (2020).

Other measures related to agriculture in the previous decade were focused mostly on food safety and research, development, advisory and expert services (Figure 57). Funds for these purposes increased through the period, reaching a maximum level in 2019 of EUR 35.1 million, namely 5.7 times more than in 2010.

Figure 57. Other measures related to agriculture (2010–2019)



Source: RS APMC database (2020).

Unlike in 2010, when research, development, advisory and expert services dominated, the rest of the period was characterised by a dominance of food safety measures. All these measures, especially food safety measures that include veterinary and phytosanitary programmes, are implemented by the MAFWM regularly.

Other transfers (not to agriculture directly) also increased, reaching their maximum in 2017 of EUR 6.6 million. Almost all of these funds are intended for the forestry sector for sustainable forest development and improvement.

7.6. EU approximation process

After the European Commission's recommendation in October 2011, Serbia gained EU candidate status on 1 March 2012. The EU accession negotiations for Serbia's membership of the EU were opened officially on 21 January 2014 at the Intergovernmental Conference. The screening process for the negotiating chapters related to agriculture (Chapters 11, 12 and 13) lasted from September 2013 to March 2015.

In the screening report for Chapter 11 (agriculture and rural development), the European Commission defined two opening benchmarks for this chapter: (i) Serbia presents to the Commission an action plan, which will serve as a basis for the transposition, implementation and enforcement of the *acquis* in agriculture and rural

development and (ii) Serbia has submitted the request for entrustment with budget implementation tasks for IPARD II to the Commission, in accordance with the provisions of Commission Implementing Regulation 447/2014.

Both opening benchmarks were fulfilled by negotiating group 11. The second opening benchmark was fulfilled in December 2015, by submitting a request for entrustment with budget implementation tasks for IPARD II to the Commission, whereas the first benchmark was fulfilled at the end of 2018, adopting the action plan for Chapter 11 by the Government of the Republic of Serbia. Preparation of the opening benchmark assessment report by the European Commission is still pending.

The negotiations in Chapter 13 (fisheries) were not conditioned by any opening benchmark and they were opened in June 2018 by presenting the Serbian negotiating position for Chapter 13. In the area of Chapter 12 (food safety, veterinary and phytosanitary policies), three opening benchmarks have been received, whose fulfilment is ongoing.

Serbia has developed a strategic framework for the harmonisation of the national agricultural and rural development policies with the CAP. In that sense, all strategic and programme documents are in line with the action plan for Chapter 11, which contains all of the steps and activities planned, and their interactions, for adjusting to the CAP.

Serbia already applies some CAP-like agricultural and rural development schemes, but they are not fully harmonised with the *acquis*. Nevertheless, there is a clear plan for achieving compliance with the CAP, but the level of realisation of this plan must be monitored in the future.

The most significant progress made has been in starting the IPARD II process. It is a demanding process requiring the establishment of a fully functional paying agency, including an appropriate administrative and IT infrastructure and environment, among others.

Agricultural statistics, provided by the SORS, are harmonised largely with the EU *acquis*, ensuring that data are comparable with EU statistics. The most extensive source of data is the 2012 agricultural census, followed by the orchard survey for 2017 and the farm structure survey for 2018. In addition, a lot of annual surveys are conducted by the SORS in the fields of crop production, livestock production, fisheries, forestry and environmental protection, as well as in other fields of agriculture. Data are sent to Eurostat regularly in accordance with *acquis* requirements. The MAFWM is the administrative source for some statistical data too (organic production, milk delivered by dairies, pesticide statistics, subsidies payments, FADN data ([42]), etc.).

7.7. Discussion, conclusions and recommendations

Serbian agriculture in the last decade has been characterised by overall slow growth. The farm structure, in terms of farm size, indicates an uneven distribution and uneven development of farms across the country. While medium- and large-scale holdings dominate in Vojvodina, south and east Serbia are characterised by small-scale holdings. This indicates significant differences not just in the farm structure between these regions, but also in the possibilities for growth and modernisation through increasing productivity, decreasing costs, the use of technologies and economic diversification.

Trade value has a steady increased owing to increasing exports and an export growth rate that was faster than that for imports. Therefore, the trade balance has also experienced increasing trend. A possible reason for this is that free trade agreements, which have allowed Serbia to gain preferential access to certain markets, have started to be used to a wider extent. In the previous period, Serbia implemented greater trade liberalisation under the SAA and signed several new free trade agreements, which called into question its ability to face competition in the international markets. Nevertheless, foreign trade data show that increasing exports and a growing trade balance, as well as an agriculture and food industry sector that remains one of the few sectors in the Serbian economy with a positive trade balance, justify the opening of the sector to international markets.

Agriculture is one of the few sectors in the Serbian economy with a positive foreign trade balance. The structure of exports is not optimal, as imports are dominated by primary agricultural products (two thirds), while processed agricultural products make up only about a third of exports.

Cereals are the most dominant type of crop in crop production, and the growing exports are based mostly on cereals, oilseeds and fruit and vegetables. This shows that Serbia has significant untapped possibilities, which

([42]) www.fadn.rs

could be improved through increasing irrigation infrastructure, increasing production in protected areas (greenhouses) and adding value through on-farm processing. By focusing on high-value products, Serbia could improve the foreign trade balance and sector profitability. Serbia's farm land is small and fragmented and, as a consequence, competitiveness in most cases cannot be achieved through economies of scale, but can be improved by adding value to products by improving processing, the implementation of quality standards, etc. The path for achieving this goal lies in increasing cooperative activity, knowledge transfer, financial support, etc.

The current policy framework has a strong emphasis on direct support per area and animal, and it funds rural development measures only modestly. This distribution of subsidies is slowing structural reforms. In recent years, the situation has been improving; marketing and direct support is decreasing, accounting in the last 3 years of the period analysed for slightly more than 60 % of the agricultural budget. Positive trends were seen in 2017–2019 in terms of increased support for structural and rural development measures, accounting for between EUR 50 million and EUR 60 million annually. Major changes in policy led to increases in direct payments to producers (based on output and area/head) from EUR 6.8 million in 2010 to EUR 216 million in 2019 and increases in their proportion of total market and direct producer support measures, namely by 93.5 percentage points in the last decade. From the other side, input subsidies have decreased, from EUR 135.1 million in 2010 to only EUR 5.1 million in 2019, with a tendency for total transformation into direct payments to producers (except insurance subsidies). The maximum eligible area for per-hectare payments for crops is still 20 ha, which was set in 2015.

Unbalanced support among farmers, for example those in the central part of Serbia receiving lower amounts than farmers in the province of Vojvodina, who receive the majority of funds, is worsening the (already deep) regional disparities. There were higher compensatory stimulating allowances for holdings in less-favoured areas, but the measures are not tailored to their specific needs and there is a lack of knowledge and information, capacities, etc.

The policy framework has been significantly improved by the adoption of several key legal and strategic acts, which directed policy development towards harmonisation with the CAP. Direct payments (in livestock production particularly) are still dominant in the agricultural policy, but rural development has been increasingly supported, aided by the beginning of the use of IPARD funds.

Agricultural policy needs to tackle the ban on GMO products, as this a significant limiting factor for the Serbian livestock sector. Serbian producers are not allowed to use GMO feed and, as a consequence, production is more expensive. On the other hand, animal products produced using GMO feed are imported freely in Serbia.

The slow progress in inspection service reform is evident. Phytosanitary and veterinarian border inspection and country inspection services are not performing inspections based on risk analyses, causing inefficient inspection control, long time retentions at the borders, etc.

Some progress was made in harmonisation with the *acquis* in the pre-accession period. The process of making adjustments to domestic agricultural policy in line with the CAP has so far been insufficiently coordinated. The low level of usage of IPARD funds is a consequence of insufficient capacities of the paying agency, insufficient coordination between IPARD authorities and an inadequate legal framework.

Policy recommendations

Serbia has significant potential for improving the competitiveness of the agricultural sector and for rural development, namely by setting up an adequate policy framework and enhancing the capacities for its implementation. To increase the competitiveness of the agriculture sector and improve the position of producers, the following activities need to be considered.

There are several recommendations in terms of **data collection and statistics**. Namely, it is recommended that the current statistical classification of settlements by type (urban and other) be abandoned and the classification of NUTS level 3 areas according to the accepted urban–rural typology of the European Commission and Eurostat be applied instead. It is also recommended that the SORS classify the spatial units at the municipal level (LAU level 2) according to the degree of urbanisation DEGURBA methodology (which is expected after the 2021 census of the population, households and dwellings). Finally, the monitoring of labour consumption in agriculture in AWUs should be included within the economic accounts for agriculture and a farm structure survey should be carried out in the inter-census period every 3 years.

The farm register needs improvement: as the main database for policy implementation, it needs to be structured at the most detailed level, with a possibility for data cross-checking and to obtain timely information for decision-making. The annual renewal of registrations must be mandatory, regardless of whether the parameters of production or the farm status change. Promotion and awareness raising of the advantages of registration would lead to an increased number of registered holdings.

With regard to the **agrarian policy**, the budget structure needs to be updated further by decreasing the allowance for direct payments in favour of allowances for rural development measures. Furthermore, the inclusion of larger areas in the system of subsidies deserves attention: from 2015, the eligible area for payment per area was decreased from 100 ha to 20 ha per holding. It resulted in the splitting of farms between family members to avoid limitation. This limitation did not achieve the budget savings planned, and instead created an additional administrative burden. A possible compensation for the inclusion of larger areas in the payment system is to adjust the limitation on total received payments (the level of modulation). This policy measure would be directed towards introducing decoupled area payments (which would be more in line with the CAP).

Subsidies for organic production are based on measures for conventional production (with a certain percentage added). Organic production measures need to be decoupled from conventional production support, as the organic sector has different requirements.

Equal access to the state land lease needs to be facilitated: currently, livestock producers are prioritised in state land utilisation, namely the possibility of renting state land is based on owning a certain number of animals on a holding. Public debate sets out the demands for equal treatment of all participants in agriculture, and this should direct the land policy transformation.

A (CAP-like) scheme should be created for small farmers who declare themselves to be non-commercial (and/or meet certain eligibility criteria), granting them a certain fixed amount annually, replacing all other payments. This would reduce the administrative burden, as there would be a smaller number of applications for other (commercial) schemes, which would save time and mean funds were better targeted.

The revolving fund for agricultural loans should be (re)established: the current implementation mechanism for agricultural loans, implemented by the MAFWM, through subsidising part of an interest rate, should be replaced with a revolving fund, which will raise funds from loan repayments and provide additional funds through the payment of (preferential) interest rates. The loans should be for an investment purpose and should have a medium-term repayment period (3–5 years). The implementer of the scheme would be the MAFWM or another authorised body, and the processing of credit would be delegated to contracted banks.

Market and quality standards should be introduced (SWG, 2020). Introducing market standards is necessary primarily for the fruit and vegetable sector, but also in the grain, eggs and meat sectors. Therefore, introducing CMO rules is required in the future, which not only would lead to better product valorisation on the market, but would also be a step forwards in alignment with the CAP. These standards would include market standards for fruit and vegetables, standards for eggs, carcass classification on slaughtering lines, etc. In addition to market standards, quality standards should also be established. The sectors that require quality standardisation are primarily the dairy and grain sectors. In the area of grain production, there is a need to introduce quality standards for wheat, which is required by the strong export orientation of the commodity. Furthermore, introducing quality standards for wheat would require investments in warehouses and warehousing equipment for categorisation. This should be an object of support by the state bodies, and it would facilitate the transit period for producers and processors. A similar need also exists in the dairy sector, as dairies themselves are authorised to assess raw milk quality, which can lead to an underestimated price, to the detriment of primary producers. Therefore, the national reference laboratories need to be involved in milk control at the level of facilities. Moreover, payments per quality class should be implemented in the milk premium, which would lead to budgetary savings and would improve raw milk quality.

In terms of agricultural associations and cooperatives, establishing a stimulating legal framework for agricultural associations is one of the most important milestones for improving Serbian agriculture's competitiveness. Agricultural cooperatives are lagging tens of times behind the EU in number, activity and assets. The greatest barrier to cooperative development is the inadequate legal framework. The law on cooperatives (Official Gazette of the Republic of Serbia No 112/2015) has shortcomings, such as the fact that legal entities cannot be members of cooperatives, agricultural saving cooperatives are not allowed, ownership is unclear (i.e. members' shares cannot be sold to other members), cooperatives' reserve fund is not clearly established, cooperative audits are lacking guidance, cooperative auditors are not licensed and, in the case of a cooperative closing, the remaining

assets go to the cooperative association without a clear procedure. Additionally, Serbia is among the few countries in the world with cooperative ownership as a third type of ownership defined in the constitution of the Republic of Serbia, which creates uncertainty among cooperative members regarding if their cooperative shares are at their full disposal. Another recommendation is that producers' organisations be established in accordance with CMO rules.

Support for producers' associations needs to be predictable in the long term and needs to be available only for real cooperatives doing business with their members. The current support for cooperatives is ad hoc and rare. Good examples of this can be found in the EU; for example, in Italy, agricultural cooperatives doing business with more than 50 % of their members receive tax reliefs. This approach could avoid the establishment of associations only to receive support, without any other intention, which has often happened previously.

Other recommendations can also be derived from the situation and policy analysis. The ban on GMO products is one of the most important limiting factors of the Serbian livestock sector. Serbian producers are not allowed to use GMO feed and, as a consequence, production is more expensive. On the other hand, animal products produced using GMO feed are imported freely in Serbia. This creates unfair conditions for the Serbian livestock sector. The solution can be found in two areas: first, GMO production should be allowed and, second, an effective national non-GMO animal products quality scheme should be introduced, which would allow provide a dedicated source of animal products produced without GMO use and create the possibility for higher pricing.

Conditions need to be created for the removal of the pork EU export ban. Serbia is not permitted to export swine meat or to transport swine meat through the EU owing to the outbreak of swine plague. The first step towards this goal has been taken, namely vaccination against this disease has stopped. The second step will be the introduction of a veterinarian indemnity fund or other compensation schemes to compensate farmers in the case of the necessity for heard eradication. The main purpose of compensation schemes is to motivate farmers to report any suspicions of the disease.

Foodstuff geographical indication schemes should be further developed. The current law on indications of geographical origin (Official Gazette of the Republic of Serbia Nos 18/2010 and 44/2018) is not harmonised with the EU *acquis*. The new draft law is, according to an SWG analysis (SWG, 2020), fully compliant with EU regulation and could enable Serbian producers to register products under a geographical indication in the EU. In addition, introducing protected designations of origin and protected geographical indications should be supported to a wider extent, focusing on geographical indication protection at the EU level. There is an insufficient number of products protected within the EU framework.

Risk management instruments in agriculture need to be developed. Serbia is among the last countries in Europe to implement agricultural insurance. It is estimated that only 5 % of parcels are insured. The recommended measures include the improvement of hydrometeorological data, coupling subsidies with mandatory insurance of the subsidy's investments (which has often been a successful practice in the EU and the United States), appointing a central organisation to be in charge of collecting the data on agricultural insurance, the introduction of new technologies that are important for area based insurance and so on.

Finally, phytosanitary, veterinarian and agricultural inspections need to introduce inspection based on risk analyses in line with EU practice.

There are many issues in transitional agricultural sectors such as that in Serbia, and the recommendations presented are the most important, for now. It can be concluded that there is a distinct need for well-planned structural reforms on Serbia's long journey towards improving the agricultural sector's competitiveness and rural development.

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