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REGIONAL DIMENSION OF CHANGES IN BULGARIAN AGRICULTURAL STRUCTURE

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ABSTRACT
Agriculture is an important sector in Bulgaria, especially in the rural areas where it is considered an important source of income and employment. Bulgarian agriculture has changed substantially over the past ten years, which has led to a transformation in production, farm, organizational and sectorial structures. The aim of the paper is to observe the regional differences in Bulgarian farm structure and outline main prospects for the next programming period, 2023-2027. The survey reveals a significant decline in the number of holdings in parallel with the decreased role of small farms. By contrast, the importance of large holdings is increasing. There are different patterns of agricultural transformation in the regions of Bulgaria. While large extensive producers dominate North Bulgaria, there is more balanced agricultural development in the South part of the country. The new CAP 2023-2027 is directed to more ambitious objectives related to climate, innovations and convergence. The subsidiarity principles could help Bulgaria to overcome some of these challenges if the agricultural policy is better targeted and oriented towards intensive sectors and more balanced and sustainable rural development.

Key words: transformation, concertation, CAP

INTRODUCTION

Agriculture is an important sector in Bulgaria, especially in the rural areas where it is considered an important source of income and employment. The Bulgarian agricultural sector has changed substantially over the past ten years, which has led to a transformation in production, farm, organizational and sectorial structures.

Different authors observed the structural changes in the country (1-4). Bulgarian farms applied new technologies, the utilized agricultural area, and the average size of the holdings are increasing. However, the imbalances continue to be a significant challenge. The results from the farm structure survey are starting point that shows the dynamics in Bulgarian agriculture and the restructuring in the sector. The regional dimensions and dynamics present the specifics in different parts of the country and emphasize the local features. In the context of the new programming period 2023-2027, the study of national and regional changes is important to highlight the opportunities and limitations.

The aim of the paper is to observe the regional differences in Bulgarian farm structure and outline the main prospects for the next programming period, 2023-2027.

The article is structured as follows: 1) First, the material and methods of the survey are presented; 2) Second part focuses on distribution of farm by utilized agricultural are and by economic size 3) Third, prospect for the implementation of CAP after 2023 are highlighted. In the last part, some conclusions and recommendations are drawn.

MATERIALS AND METHODS

The survey of structural changes and its regional reflections covers the period 2010-2020. EU. The methodological approach is based on historical and comparative analysis. The study used data provided by Eurostat and Farm Structure Survey 2010-2020 (5) to present

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the transformation in agricultural sector in Bulgaria. The survey applies the methodology used by EUROSTAT for economic size, distribution of utilized agricultural area and annual working unit. (6-8)

RESULTS AND DISCUSSION

In the past ten years, Bulgaria's agricultural structure has transformed and continued to reshape. The general indicators based on the conducted Farm Structure Surveys outline the main trends and dynamics at the national level **(Figure 1).**

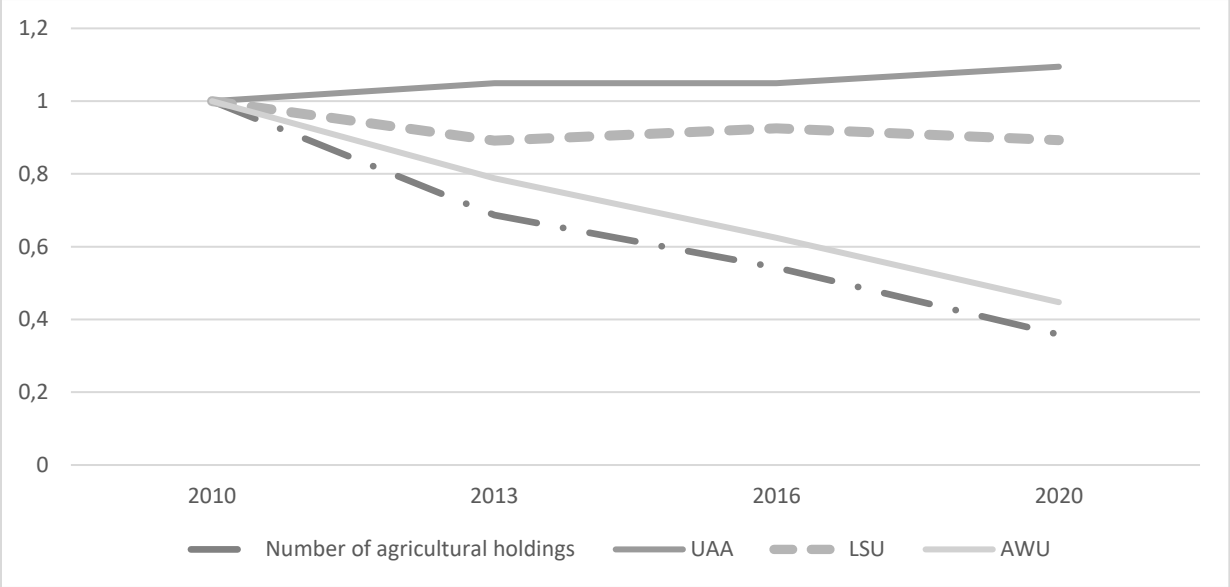

Figure 1. General indicators of Bulgarian agricultural structure (2010=1)
Source: Own calculation based on (5), (6), (8)

Based on the data, it should be noted that there is a significant decrease in the number of holdings. The reduction is a common trend in the majority of the Member-states. According to Eurostat data (6), there are 9.1 million agricultural holdings in the EU. Bulgaria forms only 2% of the holdings, while the highest share is concentrated in Romania (32%), followed by Poland (14%) and Italy (13%). However, Bulgaria ranks first with the most significant decrease in a number of holdings and a reduction of 64.1%. In the EU, the farms decline by 15%, and the other Member-states with the highest decrease are Hungary (60%), Estonia (44%) and Lithuania (35%). Hungary is the only country that registered closer to the Bulgarian level of the indicator. However, in absolute numbers, Romania and Poland rank in the first two places based on indicators, while Bulgaria is in the fifth place, after Italy and Hungary. It should be noted that in Bulgaria, many farms disappeared, mainly small family holdings. This negative trend influenced rural areas where agriculture is still the main activity for the population.

On the other hand, the size of UAA in Bulgaria is increasing by 9%. According to Eurostat data (6), the UAA has no variations in the EU average, with a slight decrease of 1%. The majority of the Member-states registered upraising trend, with the highest increase in Cyprus (11.7%), followed by Bulgaria, Latvia and Lithuania. By contrast, a decline in the indicator is observed in thirteen Member-states. In most of these countries, there is an insignificant reduction except in Greece, with a decrease of nearly 12%. The First Pillar of the CAP that supports farms based on hectares stimulates the increase in the UAA. However, land is not an unlimited resource, so the growth is not substantial.

In Bulgaria, there is a downward trend in all the other indicators. The number of livestock units in the country is declining by 10%. However, it should be noted that the Bulgarian livestock sector faces several challenges after the country's accession to the EU. Although membership to the EU provides financial support opportunities, livestock subsectors face significant challenges in meeting EU requirements and standards (9). The negative trends in livestock impact the Bulgarian production structure and lead to the concentration of value added and financial

support in the extensive crop sectors, mainly directed to cereals and oilseeds.

In Bulgaria, the number of annual working units decreased severely by more than 55%. According to Eurostat data (8), the share of agriculture in total employment in the EU average is 4% which in absolute numbers is 8.7 million persons. The share is the biggest in Romania (21 %), followed by Bulgaria (17%) and Greece (10 %). It should be pointed out that many employers are not full-time workers, and agriculture remains a minor activity for them. Only 19% of all workforce in agriculture worked full-time. That reflects the value of AWU. The number of agricultural holdings decreased from 2010 to 2020, influencing the workforce. In the EU average for 2005-2020 (8), the AWU declined by 36%. The highest reduction was registered in the Member-states from Central and Eastern Europe. The level of decrease was the biggest in Romania (1.5 million AWU), followed by Poland (about 0.9 million AWU) and Bulgaria (about 0.4 million AWU) (8).

The results show substantial changes in main indicators related to the structure of agricultural holdings in Bulgaria. The observed trends have the same direction as the dynamics in the EU. However, there is a severe decline in the number of holdings and AWU in Bulgaria compared to the average European level. The disappearance of the small family holdings plays a crucial role in the observed variations. These negative trend influences the agricultural structure and creates possibilities of wider imbalances and polarization. A broader survey at the regional level can explain the features and reasons for the abovementioned tendencies.

The dynamics in structural changes in Bulgarian agriculture at the regional level are analyzed in two main directions- the distribution of UAA and specifics in standard output distribution. **(Figure 2 and Figure 3).**

The share in a number of holdings by farm size outlines the main trends in farm structure for the past ten years. The distribution of farm size is based on EUROSTAT methodology (6).

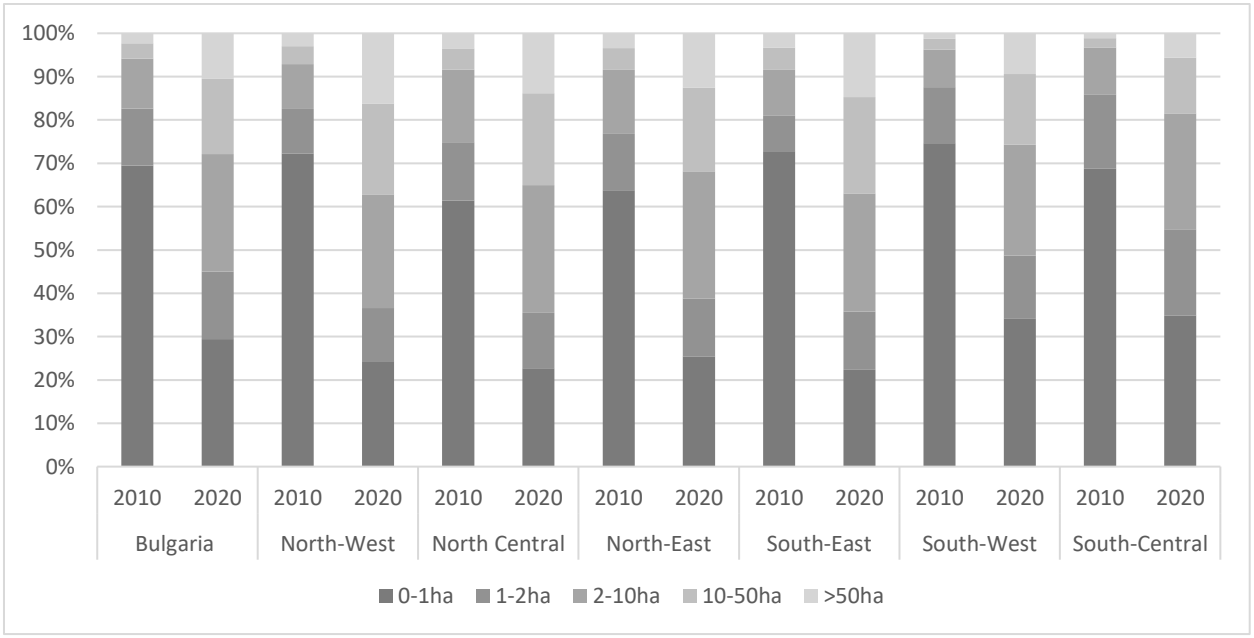

Figure 2. Distribution of number of farms by farm size (%)
Source: Own calculation based on Source: Own calculation based on (5), (6)

Based on the data, it can be pointed out that the number of holdings is decreasing in the first three groups, while the opposite trend is registered in the holding with a farm size of more than 10 hectares. At the national level, the number of holding below 1ha is declining by 84%. The highest reduction is observed in North-West and South-East regions with more than 90%. The lowest decrease is registered in the South-Central region- 79%. Similar trends can be outlined in the group with farm sizes between 1 and 2 hectares. The highest decline is concentrated in North Bulgaria (more than 60%), while the lowest loss is observed in South Bulgaria. The farm size group 2-10ha reduce their number in all Bulgarian regions except

South East. However, the decline is much lower and varies around 20%. In the last two groups, the number of holdings is increasing. The highest growth is in South West (58%) and South-Central regions (59%). On the other hand, these are the regions with the highest number of holdings. Results show that the reason for the substantial decline in the number of holdings is the reduction of small holdings. The majority of these farms are family, semi-subsistence businesses.

Another important trend is the difference in the distribution of a number of holding based on their farm size. While in 2010, 94% of the farms were below 5 hectares, in the latest FSS, their share is 61%. On the other hand, the share of large holdings is around 9% in 2020 compared to 3.3% in 2010. The regions with the highest share of farms above 50 hectares are North-Central, while the lowest is South-Central.

The share of UAA in the holdings based on their farm size shows a concertation of land in large holdings. The farms above 50 ha accumulate 83% of the UAA, which is similar to the results registered in 2010. The share of UAA in these holdings in the EU average is 52% (6). The highest share of the indicator is observed in North West and North Central regions, where more than 88% of the UAA is accumulated in holdings above 50 ha. The lowest share is observed in the South-West and South-Central-around 70% of the total UAA.

In addition, the UAA in farms below 1ha is around 0.3% compared to 2% in 2010. The highest share is registered in the South-Central region (1%), while the lowest is observed in North-West and South-East regions (around 0.1%). The holding below 5ha accumulates around 5% of the UAA in the EU average, while the indicator is almost 3% in Bulgaria.

According to Eurostat data in the EU (6), similar trends of UAA distribution are observed in Romania, where 90% of the farms are below 5ha. Small farms of under 5 ha were also typical in Malta (97 %, Cyprus (87%) and Greece (74%). In most Member-states, a large share of UAA was concentrated on holdings with farm sizes of 50 ha or more. In the Czech Republic and Slovakia, they are around 20% of all holdings, accounting for more than 90% of UAA.

There is overconcentration in most Member-states, and polarization is also an issue in Bulgaria. The imbalances in farm structure in Bulgaria remain a significant challenge. There is an accumulation of UAA in large commercial holdings specialized in extensive crops, while the number and significance of small farms are decreasing. Small family farms are considered vital for poverty reduction and the maintenance of biodiversity. Therefore the unbalanced structure of Bulgarian agriculture hinders the sustainable development of rural regions.

Another important indicator is the economic size of the holdings.

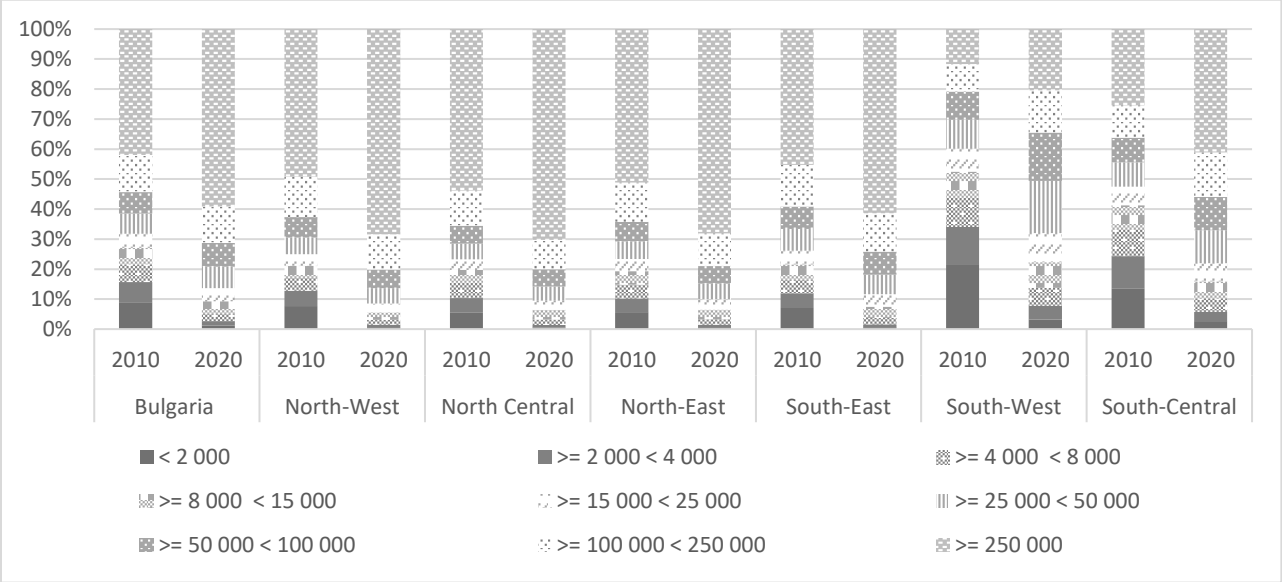

Figure 3. Share of agricultural holdings in standard output (%)

Source: (5), (6)

The data shows that the holding with an economic size of more than 250 000 EUR are 3.6% of all farms. They concentrates almost 59.5% of the standard output compared to 42% in 2010. Similar trends are overserved in the EU, where almost 60 % of the SO is generated in holdings with an economic size of more than 250 000 EUR (6). They are 3.3% of all holdings. In the EU-27, 36% of all farms are below 2000 EUR and account for less than 1% of the standard output (6, 10). In Bulgaria, the trends are almost similar.

At the regional level, the highest share of standard output in large holdings is observed in North-Central (71%) and North-West (68%), while in South West, they generated a share of only 20% of the standard output.

Regarding economic size, the results indicate similar trends to those observed by the land distribution analysis. There is an overconcentration of UAA and standard output in large commercial holdings, while small farms face challenges. Although the reformed CAP after 2013 aimed to reduce the imbalances across the EU, in Bulgaria, the polarization and unbalanced agricultural structure continue to be a significant challenge.

FARM STRUCTURE AND CAP PROSPECT POST 2022

The implementation of the CAP influenced the structure of the agricultural holdings. Several studies address the effect of direct payments of the First pillar on different aspects of agriculture, such as agricultural income (11, 12), productivity (13) and sustainable development (14, 15 and 16). Some authors (17-20) analyzed the direct payment distribution. Terluin and Verhoog (21) stated that direct payments are unevenly distributed and misdirected. According to the European Commission indicative figures for Bulgaria (22), in 2021, 52% of the direct aid is accumulated by 5% of the holdings that receive more than 50 000 EUR. In comparison, their share is 3% in the EU, and they receive 32% of the support. The data shows significant imbalances and concentration of direct support in Bulgaria. Although there are reforms in the CAP, the results indicate that the current instruments and measures support mainly large commercial enterprises. This trend negatively impacts the number of holdings and their competitiveness and sustainability.

The CAP for the new programming period has been applied since 2023 and is related to ten priorities. The new CAP is directed to three key components: simplification, subsidiarity, and increased environmental ambition (11, 23). The principle of subsidiarity is related to establishing national strategic plans with priorities and targets for each Member-state. Based on the European Commission proposal, some authors believe subsidiarity could be challenging (12, 24).

The green ambitions in the next CAP are at the centre of the policy, and eco-schemes account for 25% of the CAP's Pillar 1 (12). The new CAP objectives are linked to the European Green Deal, introduced in 2019 by the EC (25). The Green Pact presented ambitious goals that reshaped the agricultural and food system. Some authors point out that the links between CAP and the Green Deal could negatively influence the economic results and need to be analyzed and addressed (25). Others highlighted the greening of the CAP and questioned the possibilities of the new eco schemes to transform the agricultural structure (26).

Although there are mandatory redistributive payments and reduction payment alongside capping, it is questionable that these measures could lead to fairer and equal distribution of direct aid. However, financial support allocation will affect the farm structure and the existence of smaller family farms that are vital for rural regions.

In general, the expectation for post-2022 CAP can be divided into (1) related to European regulations and rules; (2) related to the national strategic plan, and (3) related to the institutional environment, which represents the organization of support, the rules and procedures for inspection and control.

(1) During the new period, the CAP is characterized by a number of limitations and requirements for farmers. The eco-schemes are related to the application of environmentally friendly technologies. These technologies are applied mainly by large grain farms. Voluntary schemes are also based on area and benefit larger producers. In addition, reduction payments and capping are applied only to Basic payment Scheme, meaning broader future inequality.

(2) The Basic Payment Scheme implementation is associated with many requirements for priority sectors such as vegetables and fruits and does not correspond to the ambition of simplification. The scheme for small farmers was not announced among applicable farmers. Due to the low awareness, the measure is expected to achieve limited effect in the first years of implementation. Therefore based on the lessons learned from the previous period, more effective and well-targeted support is needed.

(3) The rules and procedures the national authorities apply to control are incomprehensible to farmers. Implementing the measures is challenging for small holdings. In addition, the limited capacity of the National Agricultural Advisory Agency in terms of the number of advisors also needs to be addressed. The implementation of Rural Development program measures is also related to bureaucracy and heavy procedures. Therefore the application process is challenging for small and medium-sized farms, especially for the support associated with modernization and more significant investments.

The new CAP sets several priorities: greening, biodiversity and innovation (23).However, the structure of Pillar 1 does not correspond with the presented ambition, and the implementation of the new CAP will be a test for the new course of European policy, especially in direct payment allocation and equality of financial aid distribution.

CONCLUSIONS

Based on the analysis, some conclusions can be highlighted:

(1) There is a significant decline in the number of farms in Bulgaria, mainly due to the disappearance of small holdings. On the other hand, the number of larger holdings is increasing alongside the size of concentrated UAA and the generated standard output.

(2) Bulgarian agriculture is still dominated by larger holdings accumulating market power and financial support. At the same time, small and medium-sized farms face a number of challenges to remain in the farming business. These trends influenced the rural areas in Bulgaria and led to negative tendencies such as poverty, depopulation and lower economic activity and welfare.

(3) One of the key objectives of the 2014-2020 CAP was employment creation. In Bulgaria, the data show that employment in the agricultural sector has decreased by 36%, mainly due to fewer smaller farms. On the other hand, large farms use more advanced related to less workforce.

(4) The new CAP introduced ambitious goals for greening, simplification and subsidiarity. The opportunities for each country to implement a strategic plan based on local features and need could lead to better financial support allocation and targeting.

(5) There are many questions related to the effect of the components of CAP on the distribution of direct payment, the possibilities of greening and the farm structure. The new strategic plans based on national priorities could lead to better implementation of the objectives and will be tested in the coming years.

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