

РЕЗЮМЕТА

на научните публикации и трудове

на гл. ас. д-р Марияна Иванова Шишкова от катедра „Икономика“ при Аграрен университет - Пловдив, които не повтарят представените за придобиване на ОНС „доктор“, покриващи националните минимални наукометрични изисквания за придобиване на академичната длъжност „доцент“, в област на висше образование: 3. Социални, стопански и правни науки, професионално направление 3.8 Икономика, научна специалност „Икономика и управление (Селско стопанство)“, във връзка с конкурс, обявен в ДВ, бр. 7/23.01.2024 год.

I. Научни публикации, реферирани и индексирани в световноизвестни бази данни с научна информация:

I.1. Научни публикации, реферирани и индексирани в SCOPUS:

1. **Shishkova, M.**, 2021. Social capital and entrepreneurship development in rural areas. *Journal of Environmental Protection and Ecology*, Vol. 22, Issue 1, 2021, pp. 378-385, Scibulcom LTD. SCOPUS Q4, SJR (2021) 0.182.

Abstract: The development of entrepreneurship in rural areas faces many challenges. In this regard, a wide range of tools and approaches for promoting economic activity are implemented at the EU level. A number of authors have emphasised the importance of social capital for accelerating and improving outcomes in the respective field. The aim of this study is to determine the level and dynamics of social capital of the organisations supporting the entrepreneurship development in rural areas of Bulgaria, based on an analysis of existing formal and informal networks, as well as to provide policy recommendations. The survey includes organisations which promote entrepreneurship through the combined provision of access to tangible assets and enhancement of the beneficiaries' human and social capital. The method of social network analysis is applied. The results reveal that the implementation of the approaches under consideration faces some challenges; however, there is an extension of the network and strengthening of partnerships.

2. **Shishkova, M.**, Ivanova, B., Beluhova-Uzunova, R., Harizanova, A., 2022. Opportunities and challenges for sustainable production and processing of *Rosa Damascena* in Bulgaria. *Industrial Crops and Products*, Volume 186, 15 October

2022, Article number 115184, ISSN 09266690; DOI 10.1016/j.indcrop.2022.115184, SCOPUS Q1, SJR (2022) 0.897.

Abstract: The production of *Rosa damascena* and rose products is traditional for Bulgaria and is of key importance for the family farms in the rural areas where it is carried out. At the same time, this production faces some technological, economic and environmental challenges. The latter is a prerequisite for the application of the principles of the bioeconomy and the appropriate use of residues. In this regard, the aim of the study is based on research and analysis of the challenges and opportunities in the production and processing of *Rosa damascena*, to reveal the potential for sustainable results. This article discusses (1) trends and problems in the production of *Rosa damascena*; (2) key factors influencing the decision to leave the sub-sector and the possibilities for keeping farmers in it and (3) the potential for increasing the economic efficiency of processing enterprises. The case study and regression analysis are applied. The results of the study show that the main difficulties faced by the producers are determined by the low purchasing price of *Rosa damascena*, the high cost of labour and the lack of workers. In turn, the factors that have a strong effect on the decision to leave or to stay in this type of production are the age of farmers, their education, experience in growing *Rosa damascena* and the size of the cultivated area. Based on the results of the study, it can be recommended to the policies in the field to provide additional support for young farmers to continue to develop this business. Investments are also needed to increase the level of human and social capital. On the other hand, new technologies and models enable processors to further process residuals that are currently being discarded. However, representatives of the processing enterprise identified the need for development of innovative and cheaper solutions for drying waste products.

3. Sadłowski, A., Beluhova-Uzunova, R., Popp, J., Atanasov, D., Ivanova, B., **Shishkova, M.**, Hristov, K., 2022. Direct Payments Distribution Between Farmers in Selected New EU Member States. *Agris On-Line Papers in Economics & Informatics*. Volume 14, Issue 4, 2022, pp. 97 - 107. ISSN 18041930; DOI 10.7160/aol.2022.140408. SCOPUS Q3, SJR (2022) 0.306.

Abstract: The study aims to identify the degree of direct payments concentration in selected Central and Eastern European Member States (compared to the entire EU) and outline the perspectives and recommendations for the next programming period.

The spatial scope of the study includes Poland, the Czech Republic, Hungary and Bulgaria. The time scope covers the period 2009–2019. The survey indicates that the payments distribution in Bulgaria, the Czech Republic, Hungary, and to a lesser extent also in Poland, is highly unbalanced. The analysed countries used the redistribution instruments, optional for the Member States, which were introduced by the 2013 CAP reform, to a moderate extent, in order to ensure a more even funds distribution between the beneficiaries. It cannot be ruled out that instruments ensuring a more even funds distribution would be politically easier to introduce at the EU level than at the national level. Nevertheless, also in the next financial perspective, in line with the subsidiarity principle, this issue is left to the Member States.

4. Atanasov, D., Ivanova, B., Beluhova-Uzunova, R., **Shishkova, M.**, Hristov, K., Sharipov, S., Khasanov, I., 2023. Regional transformations in Bulgaria and challenges for sustainable development. *Conference Proceedings E3S Web of Conferences*, Volume 386, 12 May 2023, Article number 050022022, Annual International Scientific Conferences: GIS in Central Asia, GISCA 2022 and Geoinformatics, GI 2022, "Designing the Geospatial Ecosystem", Tashkent, 23 May 2022 through 27 May 2022, Code 188641. ISSN 25550403, DOI 10.1051/e3sconf/202338605002.

Abstract: Structural changes in rural areas are a subject of widespread discussion. During the transition to a market economy, Bulgarian agriculture underwent serious reforms, and after the accession to the EU, the transformations of the sector became even more significant. Political and socio-economic changes have an impact on agricultural production, organisational structure, and market performance. These processes have played an essential role in the development of rural areas. The aim of the study is based on an analysis of structural changes in Bulgarian agriculture, to outline their impact on the models of transformation of rural areas and make recommendations for sustainable development. Significant changes are observed during the analysed period. The agricultural sector remains polarised and dominated by several significant sub-sectors – cereals and oilseeds. The Common Agricultural Policy (CAP) does not contribute to balanced and sustainable development and deepens disparities. During the new programming period, the opportunities for modelling the CAP are significant and vary considerably. A new conceptual

framework needs to be implemented in Bulgaria - the local model related to regional specifics can solve some of the challenges.

I.2. Научни публикации, реферирани и индексирани в Web of Science:

5. Beluhova-Uzunova, R., Hristov, K., **Shishkova, M.**, 2018. Young farmers in Bulgaria - challenges and perspectives. *Agricultural University – Plovdiv, Scientific Works*, vol. LXI, book 2, 2018, pp. 37-46. Academic Publishing House of the Agricultural University – Plovdiv. ISSN 1312-6318 (Print), ISSN 2367-5845 (Online). DOI: 10.22620/sciworks.2018.02.004

Abstract: Over the past decades, there has been a deterioration of the age structure in the agricultural sector and an insignificant share of young farmers. The negative trends in recent years raise concerns about the future food security and competitiveness of the sector. The purpose of the study is based on the analysis of the structural changes of young farmers to draw conclusions and recommendations on the possibilities to increase their role and importance in Bulgarian agriculture. The research approach includes various methods: analysis, synthesis, deduction and induction. The study indicates that there is a number of challenges that have to be overcome. Negative processes not only in Bulgaria but almost in all EU Member States, require consistent and targeted action in order to support young producers and increase the attractiveness of farm activities.

6. Terziev, P., **Shishkova, M.**, 2018. State and opportunities for achieving sustainable economic growth and productive employment in rural areas of Bulgaria. *Agricultural University – Plovdiv, Scientific Works*, vol. LXI, book 2, 2018, pp. 105-113. Academic Publishing House of the Agricultural University – Plovdiv. ISSN 1312-6318 (Print), ISSN 2367-5845 (Online). DOI: 10.22620/sciworks.2018.02.011.

Abstract: Achieving sustainable economic growth and productive employment is one of the main objectives of sustainable development. There are a number of difficulties in rural areas that hinder or slow down the realization of the established objective. The latter predetermines the increased interest in their development. More than 1/2 of the rural population in Bulgaria is at risk of falling into poverty or social exclusion. This puts our country at the forefront of other European Union (EU) countries in relation to this indicator. The purpose of the article is to assess the situation and to consider the opportunities for sustainable economic performance and decent work in rural areas of Bulgaria. A comparative analysis has been carried out regarding the

level of key macroeconomic indicators for Bulgaria and the EU-28 respectively. The results from the survey reveal significant lagging behind of the regions with low and average population density in Bulgaria in terms of indicators of economic growth and employment compared to urban centres. Nearly 54% of people living in rural areas suffer from significant material deprivation, low-income poverty or live in households with very low labour intensity. Rural areas in Bulgaria lag more than three times behind urban areas in terms of economic growth and growth measured by GDP per capita. The level of employment in the country is approaching that of the other EU countries. In terms of rural areas, however, there is a dropout of 13.4%. It has been identified that among the main obstacles to business development is the lack of financial assets, and there is a need to expand the population's access to financial services and conduct practical training.

7. **Shishkova, M.**, 2019. The role of social farming for sustainable rural development in Bulgaria. *Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development*, Vol. 19, Issue 2, 2019, pp. 415-420, PRINT ISSN 2284-7995, E-ISSN 2285-3952.

Abstract: The concept of social farming has gained wide popularity in Bulgaria over the last decade. A number of authors emphasise the importance of this concept for social inclusion and economic empowerment of vulnerable groups of society. Social farming contributes to increasing the level of social capital of the representatives of these groups, provides employment and allows them to become independent economic units. The aim of the study is to show the potential of social farming for achieving sustainable results in the rural areas of Bulgaria, based on the analysis of a network of organisations implementing an integrated model for small business support among disadvantaged families. The study applies social network analysis and case study methods. The results confirm the importance of the concept in addressing major rural problems. Conclusions and recommendations have been made on policies in the area concerned. The research found that the level of structural social capital of the studied organisations increased over time. This means that new relations are created between the organisations and joint activities are implemented, as well as information and experience exchange are carried out. The latter is a prerequisite for facilitating and accelerating processes in the field of sustainable development. Some challenges for social farming have been outlined.

One or more network organisations perform a mediating function. To overcome this problem expansion of the collaboration activities among NGOs are recommended such as: training development at national level, enhancing the number of experience exchange events for the supported families and better advertisement. Developing good normative regulation is also essential. In the Member States where this has already been done, social farming is an additional source of income and helps owners of agricultural holdings to achieve good financial sustainability.

8. Hristov, K., Beluhova-Uzunova, R., **Shishkova, M.**, 2019. Competitive advantages of bulgarian sunflower industry after the accession into the European Union. *Scientific Papers Series „Management, Economic Engineering and Rural Development”*, Vol. 19, Issue 2, 2019, pp. 197-202. Publishers: University of Agronomic Sciences and Veterinary Medicine of Bucharest, Romania and Ceres Publishing House. PRINT ISSN 2284-7995, E-ISSN 2285-3952.

Abstract: After the accession to the EU the oilseed crops, especially sunflower and rapeseeds, are becoming promising and advanced sector in Bulgarian agriculture. They account for more than 20% of total agricultural output and dominate in structure of Bulgarian export. Bulgaria and Romania are the largest sunflower seed producers in the EU, with sunflower yields increasing twice over the past ten years. The results in the sector are good starting point for a debate over its competitiveness and efficiency. The aim of the study is to analyse the competitive advantages of Bulgarian sunflower industry and to outline opportunities and challenges for post 2020 period. The sector is observed in terms of production, consumption and trade. Several of the commonly used indicators for the evaluation of competitive advantages have been applied such as the Relative Index of Export Advantages – RXA, the Relative Trade Advantage – RTA and Relative Competitiveness – RC. The results show that sunflower seed will continue to dominate in Bulgarian agricultural structure regardless the dynamic of international prices and production. The difficulties in Bulgarian livestock are reflecting the sector and causing dependence on export and foreign trade.

9. Beluhova-Uzunova, R., Hristov, K., **Shishkova, M.**, 2019. Small farms in Bulgaria – trends and perspectives. *Agricultural Sciences*, Volume XI, Issue 25 2019, pp. 59-65. Publisher: Agricultural University - Plovdiv. ISSN 2367-5772 (Online).

Abstract: Small farms play a significant role in the rural regions of the European Union. They contribute to food security, create and foster biodiversity and provide local employment. In Bulgaria, the agricultural structure is dominated by small farms, which represent more than 86% of all holdings. The aim of the study is to outline the main trends and changes in Bulgarian small holdings for period 2010-2016 and to highlight the future prospects and opportunities after 2020. Comparative, historical and logical methods of analysis are applied in the research.

The results indicate that the share of small holdings in the utilized agricultural area and generated standard output is declining. On the other hand, they concentrate the highest share of the agricultural labour force and remain mostly family business. Although the current schemes under Pillar 1 provide financial support for small holdings, some of the measures are ineffective and unequal. Some of the schemes of the CAP post 2020 should be revised in order to become more effective, fairer and better orienteered.

10. Beluhova-Uzunova, R., Atanasov, D., **Shishkova, M.**, 2019. Direct Payments in Bulgaria – Trends and Perspectives. *Bulgarian Journal of Agricultural Economics and Management (Икономика и управление на селското стопанство)*, Volume 64, № 3/2019, pp. 42-50. Publisher: Agricultural Academy. ISSN 2534-9872 (Online).

Abstract: Direct payments are key component of the Common Agricultural Policy (CAP) in Bulgaria. During 2007-2013 they led to serious changes in specialization and concentration in Bulgarian agriculture. In the period 2014–2020, around € 7.4 billion is expected to be invested in farming sector and rural areas through the CAP, of which direct payments are € 5.1 billion. The main purpose of the study is to analyse the trends in direct payments allocation and to outline the opportunities and perspectives for Bulgarian agriculture. Methodological approach includes analysis, synthesis, deduction and induction. Comparative, monographic, logical and statistical methods of analysis are applied. In order to study the disparities in paper is used Gini coefficient as a widely applied measure of inequality. The results show that First Pillar benefits mainly larger-scale farms causing disbalances in Bulgarian agricultural sector. Small and medium sized farms receive negligible share of the financial support. The implementation of new opportunities presented by direct payments could help to decrease sectorial and structural imbalances in agriculture and to decrease the polarization of Bulgarian farms.

11. Beluhova-Uzunova, R., Hristov, K., **Shishkova, M.**, 2020. The Common Agricultural Policy post 2020 - farmers' perception and policy implication. *Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development*, Vol. 20, Issue 2, 2020, pp. 61-68. PRINT ISSN 2284-7995, E-ISSN 2285-3952.

Abstract: The Common agricultural policy post 2020 is still under consideration and discussion among Member-states, farmers' organizations and other stakeholders. The purpose of the study is to analyse Bulgarian farmers' perceptions and attitudes towards the CAP and to outline the prospects for national implementation in the 2021-2027 budgetary period. The paper is based on a survey covering 74 Bulgarian farmers from all regions of the country. The study applies the comparative, historical and statistical methods of analysis. The results indicate high expectation for income stabilization and support in bigger farms, while there are some variations and negative trends in smaller holdings. The national priorities for 2014-2020 period are directed in favour of high value-added crops and livestock sector. Bulgaria also implements measures as Redistributive payments, Coupled support and Small farmers' scheme. However, the financial support allocation is not giving the expected results and the structural imbalances remain. The national policies should be revised and the implementation of the CAP post 2020 in Bulgaria should have better targeting and more equal distribution.

12. **Shishkova, M.**, 2020. Implementation of Community-Led Local Development Strategies - Evidence from Southern Bulgaria. *Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development*, Vol. 20, Issue 3, 2020, pp. 537-542, PRINT ISSN 2284-7995, E-ISSN 2285-3952.

Abstract: The LEADER approach/ Community Led - Local Development (CLLD) is one of the most effective tools for rural development at EU level. It enables empowerment of the population, involving all stakeholders in the decision making process. The built trust and the growing role of the Local Action Groups (LAGs), through which the approach is applied, are a prerequisite for LEADER/ CLLD to become a key instrument for tackling the challenges facing the rural areas of Bulgaria. The aim of the study is, based on the analysis of the main factors influencing the results of the implementation of integrated strategies, to outline the opportunities for increasing the number of supported initiatives, as well as to

formulate recommendations in the respective field. The study encompasses 34 LAGs operating on the territory of Southern Bulgaria. The results of the regression analysis reveal the following main factors determining the number of supported initiatives under the local development strategies: the experience of the LAGs, the type of strategy (single-fund or multi-fund support) and the ongoing communication with relevant government agencies.

13. Beluhova-Uzunova, R., Atanasov, D., **Shishkova, M.**, 2020. Distribution of direct payments in Bulgaria - policy lessons and prospects beyond 2020. *Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development*, Vol. 20, Issue 2, 2020, pp.53-60, PRINT ISSN 2284-7995, E-ISSN 2285-3952.

Abstract: Direct payments are an essential element of the Common Agricultural Policy Budget. Pillar I plays an important role for Bulgarian farmers' income stabilization and support. The aim of the study is to analyse the direct payments distribution in Bulgaria and on this base to formulate recommendation regarding future policy development. In the paper Lorenz curve is applied as widely used measure of inequality. The results indicate significant disparities among farmers and uneven distribution of the financial support. The allocation of aid under Pillar I leads to serious imbalances in Bulgarian agriculture. There is a substantial transformation in production and trade patterns. The new architecture of direct payments and the greater flexibility of the instrument post 2020 can address some of the existing challenges.

The new CAP proposals are oriented to improve targeting on several directions – greening and young farmers. On the other hand, the convergence among farmers' income support and the external converges among Member-states is lagging behind. Redistributive payments also need to be more efficient and better targeted. The eco-schemes have been introduced as a new intervention, but their content, requirements and impact are still unclear to some stakeholders.

14. Ivanova, B., **Shishkova, M.**, Beluhova-Uzunova, R., 2020. Agricultural biomass potential in Bulgaria. *Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development*, Vol. 20, Issue 2, 2020, pp. 273-280, PRINT ISSN 2284-7995, E-ISSN 2285-3952.

Abstract: Fuel dependency and uncertainty about their prices, coupled with increasing concerns about climate change and other environmental issues, are

among the major global challenges on the agenda. They are key drivers for the development of biomass production, considered as the core of the bioeconomy and a main alternative for energy production. The aim of the study is to analyse the contribution of Bulgarian agriculture to the bioeconomy development and the potential of the sector for biomass production. The research is based on the definition and classification of the bioeconomy proposed by the European Commission. The results show a tendency of diminishing importance of Bulgarian agriculture in the national economy after accession to the EU. On the other hand, the sector remains a major source of employment in rural areas. In terms of the potential of Bulgarian agriculture for biomass production, crops of wheat, sunflower and maize play an important role. Among the major challenges facing Bulgaria are the attitudes in society about the benefits of using biomass, including economic, social and environmental. Therefore, the entrepreneurial activity should be stimulated in order to guarantee sustainable production and efficient use of biomass in the conditions of imbalance between North and South Bulgaria.

15. **Shishkova, M.**, 2021. Local Action Groups and rural development in Bulgaria-challenges and prospects. Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development, Vol. 21, Issue 3, 2021, pp.725-730, PRINT ISSN 2284-7995, E-ISSN 2285-3952.

Abstract: Over the last decade, local action groups (LAGs) in Bulgaria have become key organizations supporting the implementation of projects important for rural development. Prerequisites for this are the unique characteristics of the LEADER/CLLD approach, which allow empowerment of the population, capacity building combined with providing access to financial resources, as well as building trust and accumulation of social capital. Since the beginning of the application of the approach in the country, LAGs have been facing some difficulties, but at the same time the opportunities for attracting funds to support a wide range of initiatives at the local level are expanding. In this regard, the aim of this study is based on the analyses of the activities of LAGs in the country, to outline the challenges facing these organizations and to reveal their potential for sustainable development of rural areas. The case study method is applied. The results show that Local Action Groups in Bulgaria faced a number of difficulties in 2020. The latter can be systematized as follows: 1) related to the management of the organization; 2) difficulties which directly

refers to the implementation of the Community-Led Local Development Strategy; and 3) difficulties arising from pandemic restrictions. The results of the study reveal a significant potential of LAGs to accelerate the socio-economic processes in rural areas. The main recommendation in regard to the policies in the field is to optimize the verification processes by the PA, to look for opportunities to reduce the regulatory burden and to have greater flexibility regarding the contracts of the beneficiaries in connection with the changes in the economic situation.

16. Beluhova-Uzunova, R., Hristov, K., **Shishkova, M.**, 2021. Family farming in the context of global challenges. *Scientific Papers-Series Management Economic Engineering in Agriculture and Rural Development*, Vol. 21, Issue 2, 2021, pp.71-80, PRINT ISSN 2284-7995, E-ISSN 2285-3952.

Abstract: The current challenges related to the Covid-19 pandemic raise concern regarding security and sustainability of the global food system. As family farming plays a crucial role in the European agricultural sector, its support and development are vital to ensuring food sovereignty and security, including rural areas. It is the predominant farm model which accounts for more than 90% of the number of holdings and is considered as a main source of income and employment for rural population. In the context of global health crisis, it is important to focus the attention on the issues and opportunities that family farms face. The aim of the study is based on an analysis of the observed trends in various aspects of family farming, to discuss the effects of Covid-19 and to highlight the strategies for the development of these agricultural production systems. The paper compares Bulgarian family farming with other EU member states. The survey indicates that although family farms dominate in the EU agricultural structure, they face number of challenges such as access to resources, financial aid, low competitiveness and investment activity.

17. Beluhova-Uzunova, R., **Shishkova, M.**, Hristov, K., 2022. Socio-economic challenges for regions and agriculture in the new member-states. *Scientific Papers-Series Management Economic Engineering in Agriculture and Rural Development*, Vol. 22, Issue 2, 2022, pp.89-96, PRINT ISSN 2284-7995, E-ISSN 2285-3952.

Abstract: The regional inequalities in the EU are an essential part of policy agenda and public discussions. The new Member States remain in the group of "lagging regions" that includes low-income areas facing a number of challenges. Agriculture is a crucial sector in most of these regions, and it is seen as a major source of local

employment and income. The survey aims to present the characteristics and the implication of regional disparities and outline recommendations for more balanced development. The study shows that divergence is growing at a national, regional and local level. Regions are experiencing low growth, high unemployment rate, social exclusion and poverty. However, it can be concluded that many of the regions have unexplored potential. In order to address the disparities, then policymakers should focus on the regions' specific features. The regional programs should be directed to their unique characteristics and challenges. In this regard, the implementation of targeted support should be associated with coordination and cooperation between different stakeholders.

18. Georgiev, M., Grozdanova, D., Ivanova, B., Beluhova-Uzunova, R., **Shishkova, M.**, 2022. Agricultural land, rent seeking and transaction costs. *Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development*, Vol. 22, Issue 2, 2022, pp. 345-352. PRINT ISSN 2284-7995, E-ISSN 2285-3952

Abstract: The study aims to assess the dualistic impact of the rents and transaction costs on the farmers regarding agricultural land use. The theoretical framework is based on Rent-seeking (RS) theory and the Transaction cost economics (TCE). The review of both doctrines explains the "outflow" or "absorption" of value. Transaction costs are setting market inefficiencies due to the lack of consolidation of property rights and waste of time. The study uses different methods, such as comparative institutional analysis, which retrospectively shows the effect of the institutional change and, as well as the the impact of rent-seeking and transaction costs on key actors in the agricultural sector. The results of the study revealed that the level of transaction costs increased in unfinished contracts. The latter (lease, rent) allow the owner to maintain long-term control over resources and capitalize on non-market advantages. One of the advantages is the indirect ability to transfer individual transaction costs.

19. Beluhova-Uzunova, R., **Shishkova, M.**, Hristov, K., 2023. Bulgarian agricultural structure and prospects post-2023. *Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development*, Vol. 23, Issue 2, 2023, pp. 75-82. PRINT ISSN 2284-7995, E-ISSN 2285-3952.

Abstract: The CAP 2013 reform aimed to achieve ambitious goals - more equality in the distribution of financial support, better targeting and „greening” of direct

payments. The aim of the study is to outline the changes in Bulgarian agricultural structure and to formulate recommendations for the post-2023 period. The results show that in Bulgaria, during 2010-2020, the number of agricultural holdings decreased by 64%, and the farm structure was seriously transformed. The trends of land concentration and polarization are continuing, although the European and national policy priorities are directed at overcoming the imbalances and differences. These land concentration processes are accompanied by accumulating a significant share of direct payments in large holdings. The transformations in farm structure could lead a significant challenge in the context of future Bulgarian agricultural development, food security and livelihood in rural areas. The flexibility and subsidiarity proposed by the CAP allow the EU Member-states to set their priorities and direct financial support to crucial sectors according to national specifics. However, financial aid should be better targeted, and the capping and payments reduction need to be more efficient.

II.3. Научни публикации, реферирани и индексирани в други бази данни:

20. Beluhova-Uzunova, R., **Shishkova, M.**, Ivanova, B., 2019. Concepts and key sectors of the bioeconomy. *Trakia Journal of Sciences*, Vol. 17, Suppl. 1, pp 227-233, 2019. Publisher: Trakia University. ISSN 1313-7069 (print), ISSN 1313-3551 (online), doi:10.15547/tjs.2019.s.01.038.

Abstract: Although the bioeconomy as a concept emerged in the late 20th century, it has generated a significant interest among researchers, policy makers and businesses in the last decade. The interdisciplinary character of the bioeconomy gives an opportunity to address major global challenges, both economic and environmental. The aim of the article is to outline different definitions, concepts, as well as to highlight the key bioeconomy sectors. The paper focuses on the links between the bioeconomy and circular economy, sustainable development, implementation of innovation, value chain formation as well as regional specialization. The survey applies historical, comparative, monographic methods of analysis. The theoretical roots and evolution of the concept are observed. The study analyses different approaches and perspectives regarding the bioeconomy sectors. The results indicate that there is no clear consensus on the definitions and key sectors of the bioeconomy in the global context. Despite the worldwide interest in bioeconomy, there are various challenges associated with the design and

implementation of individual national, regional bioeconomy strategies, which could ensure the development of smart specialisation and green growth.

21. Beluhova-Uzunova, R., **Shishkova, M.**, Ivanova, B., 2021. The role of agricultural biomass in the future bioeconomy. *Trakia Journal of Sciences*, Vol. 19, Suppl. 1, pp 181-186, 2021, ISSN 1313-3551 (online), doi:10.15547/tjs.2021.s.01.027.

The European Commission presented the 2018 Bioeconomy strategy, which developed an action plan for a resource-efficient, competitive and sustainable economy. The bioeconomy sectors are also linked to the European Green Deal, Stepping up Europe's 2030 climate ambition Communication, Farm to Folk Strategy and other innovation strategies. In the transition to a low carbon world, biomass plays a crucial role as an alternative to fossil resources. In the EU, agriculture is the main source of biomass with 68% of the total supply. The paper analyses European Union agricultural biomass potential, supply and use. Agricultural biomass is part of the core bioeconomy sectors and its demand is increasing. However, the potential of biomass and its alternative uses are a major concern. Biomass is a renewable but limited resource and, on that basis, it is important to outline the balance and to pay attention to the relationship between the nutritional and industrial needs of biomass in terms of food and energy security. The policy framework in this regard has to be complex and well-targeted. The biomass use could lead to a number of benefits associated with resolving global issues. On the other hand, if sustainability is not taken into account, the opportunities for inclusive growth and development will not be achieved.

22. Georgiev, M., Beluhova-Uzunova, R., **Shishkova, M.**, 2021. Risks in the context of food sovereignty. *Proceedings of the online International Scientific Conference „Quality Soil as a Pathway to Healthy Food in the EU- Challenges to 2030“* held at the Slovak University of Agriculture in Nitra on October 19-21, 2021, pp. 79-88. ISBN 978-80-552-2403-9.

Abstract: The study analyses risks in the context of food sovereignty concept. The paper observes the public relations in the agricultural sector. In this regard three main risks are defined: (1) risk of "over efficiency" associated with the degree of consolidation and concentration of resources which creates issues with access to factors of production for some groups of farmers; (2) communication risk – generated by the dynamics of technological change on the basis of information and may create barriers to the adaptation of small local producers; (3) risk of energy poverty –

transformation of production through the use of clean energy, which can cause an increase in energy prices and a decline in competitiveness and income affecting local agricultural producers. The aim of the study is to present and outline rules related to the food sovereignty and some of the effects that disrupt agricultural sector in Bulgaria. The paper presents a vision for a new type of risk, which could cause limited access to technology for some farmers. Based on the analysis, some practical solutions are highlighted.

23. Beluhova-Uzunova, R., **Shishkova, M.**, Ivanova, B., 2023. Bioeconomy strategies: visions and prospects. *Trakia Journal of Sciences*, Vol. 21, Suppl. 1, pp 110-117, 2023. ISSN 1313-3551 (online). doi:10.15547/tjs.2023.s.01.019.

Abstract: Bioeconomy, as an evolving concept, gained serious interest in the past two decades. It is considered a key driver in resolving a number of global challenges and is integrated into a broader framework with circularity, green transition and sustainable development. At this point, many international, national and regional strategic documents are linked to bioeconomy and directed to its strategic objectives. The aim of the paper is to present comparative analysis of bioeconomy strategies at global and national levels in order to observe the main concepts, vision and priorities and highlighted future agenda, prospects and recommendations for better integration and coordination. The analysis of the published strategic documents shows that there are no global framework and internationally accepted definition of bioeconomy. There are diverse understandings and differences in key priorities and goals between Europe, Asia, and South and North America. The bioeconomy remains a political concept, with a significant number of countries engaged in implementing its guiding principles. Until 2030, the ambitions in bioeconomy strategies and policies will be tested. In this regard, significant support is needed in the form of specific measures and financial instruments to realize investments in this field.

24. Beluhova-Uzunova, R., **Shishkova, M.**, Hristov, K., 2023. Regional dimension of changes in Bulgarian agricultural structure. *Trakia Journal of Sciences*, Vol. 21, Suppl. 1, pp 159-166, 2023. ISSN 1313-3551 (online) doi:10.15547/tjs.2023.s.01.028.

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.

II. Монография:

Beluhova-Uzunova, R., **Shishkova, M.**, Ivanova, B. 2023. Potential and prerequisites for the development of the bioeconomy in Bulgaria. Academic publishing house of the Agricultural University - Plovdiv, 2023. ISBN 978-954-517-322-6

The bioeconomy is a concept that has gained wide popularity in the last decade, both globally and at the European level. Its rapid adaptation to the needs of the modern world, in response to the goals of achieving sustainable development, places this concept at the heart of policies and planned activities to address the challenges associated with limited resources, environmental protection, increasing human well-being, as well as those in the other priority directions.

The development of the political and legal framework in the field of the bioeconomy at the European Union level is a prerequisite for the faster involvement of the stakeholders in these processes and the establishment of cooperation between them at the local level. The application of new instruments for support and the adaptation of some of the existing ones is of great importance. Increasing the level of social capital and allocating funds for the relevant projects would help to achieve sustainable development when applying the relevant concept.

The aim of the study is, based on the analysis of the potential for development and the territorial distribution of the initiatives in the field of bioeconomy, supported at the local level, to outline the priority areas in the implementation of projects of a given category and to make recommendations for achieving sustainable results.

To reach the goal, the research goes through the following stages:

- Study of the theoretical foundations of the bioeconomy, the relationship of this concept with other innovative concepts in the economy, as well as with sustainable development. Outline the main sectors and strategies.
- Development of a conceptual framework of the study and description of the steps of its implementation.
- Study of the prospects for the development of the priority sectors of the bioeconomy in the country. Revealing the role and importance of the agricultural sector in these processes.
- Determining and analysing the potential for the production of biomass from key crops for the country. On this basis, mapping the relevant potential on a regional basis and revealing the possibilities for using biomass in bioenergy.
- Study of the development of the bioeconomy in Bulgaria at the local level by identifying projects from the main sectors of the core bioeconomy, supported by the Strategies for Community-led Local Development (CLLD). Application of spatial analysis at the district level regarding the main categories of projects and their financing; analysing the distribution of initiatives by year for the study period.
- Research and analysis of good practices in the field of bioeconomy, oriented to the preservation of cultural and historical heritage and realised as a result of the cooperation between local action groups (LAGs).
- Outline the opportunities for financing bioeconomy projects and analysis of existing strategies and policies.
- Providing recommendations on accelerating processes for the sustainable development of the bioeconomy at the local level.

The object of the study is the bioeconomic initiatives in rural areas, supported by the Community-led Local Development Strategies of the LAGs and operating in Bulgaria during the program period 2014-2020. The main study period is 2016-2021.

On the basis of the conducted research, it can be summarized that a dynamic and evolution has been registered as regards the definition, content and scope of the term "bioeconomy" at the world and European level. Some of the identified challenges and raised issues are under discussion and in the process of being resolved, while others are likely to be clarified. However, the concept is expected to respond to the key global challenges facing modern society. Within these characteristics of the macro environment, the place of Bulgaria and the realised

achievements in the practical application of the concept have been identified. Unrealised potential was revealed, as well as opportunities for the development and application of various activities, which shows the importance of the concept in the country.

In conclusion, it could be emphasised that, albeit slowly, the country is taking the first steps in developing bioeconomic practices, but needs to realise its full potential. The latter requires both measures at the level of state policy, as well as the participation of stakeholders and the accumulation of social capital. Research and development activities are essential in this process. Scientific research and an interdisciplinary approach are the basis for realising the principles of the bioeconomy, and the need for broader public engagement in this direction must be emphasised. Beyond scientific research, practical application and green transformation of business must be supported and stimulated. Besides strategic documents and plans, integrating individual policies and clarifying the links between the bioeconomy and other key concepts such as sustainable development, the circular, green and inclusive economy is important. Hubs and clusters connecting the individual actors in the value chain will be important to realize the goals. The latter must be tailored to the specifics of the regional as a successful approach to applying the principles of the bioeconomy. It is expected that the role of local communities will increase for a better implementation of initiatives that will allow Bulgaria to improve its position regarding the contribution of the bioeconomy to the development of the national economy.