

Summaries of the publications and original contribution

BARTOSZ MICKIEWICZ

1. Borawski P., Guth M., Truszkowski W., Zuzek D., Beldycka-Borawska A., **Mickiewicz B.**, Szymanska E., Harper J.K., Dunn J.W., *Milk price changes in Poland in the context of the common agricultural policy*, Agricultural Economics (Czech Republic) Volume 66, Issue 1, Pages 19 – 26, 2020, ISSN:0139-570XE-ISSN:1805-9295

Changes in the retail prices of pasteurised milk, purchase prices, and the price relationship between retail prices for pasteurised milk and other food products are analysed for Poland during the period from 2004–2018. In addition, the paper presents factors affecting changes in milk prices in Poland and characterises the Common Agricultural Policy (CAP) on the milk market. The adoption of a long period of analysis allows for the study of periods of both high and low variability. The data analysis uses various methods including the Augmented Dickey-Fuller (ADF) test and the Autoregressive-Moving-Average Model (ARMA). The milk market showed significant response because it was one of the few that was strongly administered by the European Union. These policies led to a significant increase in milk prices in the analysed period. The average price of pasteurised food milk increased by 63% in 2003–2015, and the purchase farm price of milk increased by 91.74%. The situation changed when the production limits were eliminated after 2015. In the initial period after quotas ended, the price of milk decreased and then increased. Similar changes were observed in other EU countries. Even short-term fluctuations associated with economic crises did not significantly affect the milk market.

Keywords: Common Agricultural Policy; milk market; price volatility; purchase prices

My contribution includes participation in the development of the concept and the development of the text on the topic of Common Agricultural Policy changes in EU. (I estimate my participation at 15%);

2. Śleszyński, P., Nowak, M., Brelik, A., **Mickiewicz, B.**, Oleszczyk, N., *Planning and settlement conditions for the development of renewable energy sources in Poland: Conclusions for local and regional policy*, Energies 14, Issue 71 April 2021, ISSN:1996-1073

The article presents an analysis of geographical-settlement and legal-planning conditions for the development of Poland's distributed generation. The choice of this country is important and interesting due to the highly dispersed settlement, which may be a factor stimulating the development of this type of energy systems. For this reason, the analysis can be a model for other countries and regions, indicating ways to analyze and evaluate settlement and planning conditions for the development of renewable and distributed energy. At the same time, Poland is struggling with a severe crisis of spatial planning. By analysing these opportunities and threats, empirical analyses try to indicate regularities in this respect in Poland's regions in a detailed approach to communes and detailed legal and planning conditions. The conclusions emphasise the usefulness of distributed generation development for peripheral and sparsely

populated areas of Europe and other parts of the world and appropriate directions of changes in spatial development law.

Keywords: distributed generation; settlement systems; local development

My contribution consisted in participation in a scientific project involving the research described in the work, participation in the development of the concept of work and methodological assumptions for bibliographic analysis and the development of the text of the empirical chapter (my participation is estimated at 25%);

3. Blaszkę, M., Nowak, M., Śleszyński, P., **Mickiewicz, B**, *Investments in renewable energy sources in the concepts of local spatial policy: The case of Poland*, *Energies*, 2021, 14(23), 7902, ISSN:1996-1073

The paper aims to determine the role and formula of investments in renewable energy sources in Poland's concepts of local spatial policies. It analyses 12,777 planning documents of local spatial policy (these are resolutions adopted by municipalities—in Poland there are two types of these instruments: studies of spatial development conditions and directions and local spatial development plans) in Poland enacted in 2005–2020. On this basis, local concepts were classified and related to the geographical and functional characteristics of municipalities. Poland is an interesting case study in this respect, providing a good reference point for broader international considerations. It was found that only 58.4% of Polish municipalities include renewable energy sources in their spatial policy concept. These are definitely more often urbanised municipalities. The degree of approach to renewable energy sources is also determined by the location of the municipality in the given province. The authors diagnose serious weaknesses in the Polish spatial planning system, consisting in the lack of skilful implementation of renewable energy sources into it. This is one of the reasons for the weaker development of renewable energy sources in the country. The authors consider as an innovative element of the research the analysis of the content of all spatial policy instruments in a given country, from the perspective of renewable energy sources, including proposing a way to verify these instruments.

Keywords: renewable energy sources; spatial policy; spatial policy tools; investment efficiency

My contribution consisted in participation in a scientific project involving the research described in the work, participation in the formulation of methodological assumptions, development of the results of statistical analysis and development of a preliminary version of a scientific article (my participation is estimated at 25%);

4. Mickiewicz, Antoni, **Mickiewicz, Bartosz**, *Meaning of Transborder Cooperation in the Development of Western Borderland in Poland*, *Economic Science for Rural Development*, Issue16,Page129-133,Published200, ISSN1691-3078

The border location became one of the most essential factors stimulating the local development. Regional and local initiatives aiming to the search of planes of the neighborhood cooperation of border regions sprang up in the after-effect.

The paper presents role, effects and influence of euroregional cooperation and transborder agreements of three euroregions on socio-economic activation of rural areas and small towns. There is also presented the special role of parishes' development, main problems of border areas, use of local human and economic resources on Polish western borderland.

Key words: Crossborder cooperation, European integration, euroregions, Poland, Germany

My contribution includes participation in the development of the concept of the article and the authorship of the part concerning selected rural areas development solutions and the potential of their impact on the functioning of business entities (my share is estimated at 50%);

5. Mickiewicz, Bartosz, *Strategic Aim of the National Agrarian Policy of Poland and Main Directions towards its Successful Implementation*, Economic Science for Rural Development, Issue23, Page45-50, Published 2010, ISSN1691-3078

The paper presents the strategic aim of national agrarian policy of Poland and its main direction in order to successful realization. The research works were made on the basis of habilitation materials made by author of the paper in 2004-2009 which were concentrated on main changes in Polish agrarian sector and policy after Poland's accession to the European Union. In the paper there were presented the basic criteria that have impact on main aim of agrarian policy of the state: assure of food security of the state. It was concluded that food security of the state may be assured by stimulated economic conditions of agri-industrial production, support of efficient enterprises with use of progressive technologies in whole agrarian sector.

Key words: agriculture, rural areas, European Union, rural policy, Polish agrarian sector

My contribution includes participation in a scientific project involving the research described in the paper, the development of a methodology for the construction of the agricultural sustainability index, the performance of calculations for Polish, the development of research results and the entire text.

6. Mickiewicz, Antoni, Mickiewicz, Bartosz *Characteristics of Actions on the Rural Development Programme for 2007-2013*, Economic Science for Rural Development, Issue26, Page98-108, Published 2011, ISSN1691-3078

The paper presents support instruments within the framework of the Common Agricultural Policy from the financial and material side which Poland adopted within the scope of the Rural Development Program for 2007-2013. The actions defined in the program were divided into four thematic (priority) axes. In total the support granted to Poland amounted to 13.2 b euro, out of which the largest funds were earmarked for the implementation of actions within axis I. The

material analysis of the actions demonstrates that in the course 2007-2013 over 2.3 thousands different tasks (operations) will need to be performed, including the most numerous actions within the scope of axis I.

Key words: rural development, support instruments, CAP, Polish agriculture

My contribution consisted in participation in a scientific project involving the research described in the work, the development of an empirical chapter, participation in the development of conclusions (my participation is estimated at 50%)

7. Mickiewicz, B., Grzybowska-Brzezinska, M., *RURAL TOURISM AS AN IMPORTANT ELEMENT OF SUSTAINABLE DEVELOPMENT OF 'NATURE MUNICIPALITIES' LOCATED IN THE PODLASKIE VOIVODESHIP - THE GREEN LUNGS OF POLAND, MULTIFUNCTIONAL DEVELOPMENT OF RURAL AREAS: INTERNATIONAL EXPERIENCE, Page95-112, Published 2012,*

Rural tourism is not a panacea for the structural problems of rural areas in Poland. The majority of regions – particularly outside of the traditional tourist destinations and far from big cities – will have to base their diversification on more pillars than tourism. The tourism strategy should be embedded in an overall concept for the rural area. An increasing interest in rural tourism will in most areas strongly depend on the development of domestic demand. Foreign tourists only account for a small percentage of overnight stays and – in contrast to some earlier expectations – it cannot be assumed that Germans or other foreigners will come in droves to Poland's natural areas in the near future.

Key words: rural tourism, rural development, income, additional activity, agriculture and ecology

My contribution consisted in participating in a scientific project involving the research described in the work, participation in the development of the concept of empirical research and the development of an empirical chapter (my participation is estimated at 50%)

8. Mickiewicz, Bartosz, *Perspectives of Agricultural Policy for The European Union Member States After 2013,* Economic Science for Rural Development, Issue27, Page164-168, Published 2012, ISSN1691-3078

The paper presents future perspectives of changes in European agriculture after 2013 what is caused by necessary modification of Common Agricultural Policy. The CAP has undergone fundamental reforms over time, which demonstrates its proven capacity to respond to changing economic conditions as well as societal expectations and demands. In this process, the CAP has moved to a policy putting emphasis on market orientation and competitiveness, income support, environment, and the development of rural areas. In the paper there were presented Common Agricultural Policy in opinion of the European Parliament and European Commission.

Key words: rural development, support instruments, CAP, European Union agriculture

My contribution consisted in participation in a scientific project involving the research described in the work, participation in the formulation of methodological assumptions, development of the results of statistical analysis, formulation of conclusions and development of the text.

9. Mickiewicz, B., Pradziadowicz, M., ISSUES OF SHAPING THE AGRICULTURAL MARKET IN POLAND ON THE EXAMPLE OF MILK AND SUGAR MARKETS, Economic Science for Rural Development, Issue30, Page62-68, Published 2013, ISSN1691-3078

The paper presents the development of the agricultural market in Poland, taking into account two periods of its existence. In the first period, encompassing the years from 1989 to 2004, the Agricultural Market Agency was the institution responsible for agricultural markets with an obligation of stabilising the market and protecting agricultural incomes. Following the accession into the EU, the Agency was granted new competencies and it received a status of a payment agency, which meant that the Agency was put in charge of regulating all agricultural markets. The article discusses the issues of milk quotas, introduced for the purpose of concentrating milk production in certain voivodeships, while at the same time achieving a reduction in the number of wholesale suppliers by 52.1%, and a decrease in the number of direct (individual) suppliers by 69.7%. Sugar market regulation resulted in a reduction of sugar plants from 78 to 18 (by 76.9%) and limiting the areas of sugar beet cultivation to selected regions.

Key words: agricultural market, milk quotas, sugar market, Agricultural Market Agency.

My contribution consisted in developing concepts, assumptions and methods, collecting statistical data, conducting empirical research, preparing the text and editing the whole (I estimate my participation at 50%)

10. Marks-Bielska, R., Babuchowska, K., **Mickiewicz, B.**, *Conditions Underlying the Agricultural Land Turnover in Poland in the Context of Institutional Solutions*, Rural Development, Volume6, Issue1, Page 574-579, Published 2013, ISSN1822-3230

The aim of the article has been to identify and evaluate main factors which influence the land-lease market in Poland. Statistical data from two institutions, namely the Agricultural Property Agency (APA) and the Central Statistical Office, as well as the author's own research have been used. The time horizon of the analysis covered 1992-2012. At the beginning of the system transformation in Poland, the APA faced a low demand for land acquisition. Formally, the domestic land lease market in Poland mostly consists of the Stock of the State Treasury because land leases between neighbour farmers typically involve small acreage and the vast majority of land-lease contracts on the private market are informal. In line with the current policy governing the management of farmland in Poland, sale is a preferred solution to lease, as a result of which the number of new land-lease contracts is relatively small, for example in 2012 they covered in

total about 11.6 thousand ha. The total number of binding land-lease contracts was 68.9 thousand, which covered 1.3 million ha of farmland from the Stock of the State Treasure (about 28%). The growing interest in leasing land on the private market can be associated with both a small supply of land offered for sale and the fact that the land lots offered for lease by the ANR are fewer less attractive than previously.

Keywords: land-lease, Agricultural Property Agency (APA).

My contribution includes participation in the development of the concept and the development of the text on the topic about land sale and purchase (I estimate my participation at 33%);

11. Zuzek, DK., **Mickiewicz, B.**, *SUPPORT INSTRUMENTS FOR THE SECTOR OF SMALL AND MEDIUM ENTERPRISES WITH A PARTICULAR FOCUS ON AREAS*, Economic Science for Rural Development, Issue32, Page14-18, Published 2013, ISSN1691-3078

Abstract. After Poland's accession to the European Union economic units are obliged to obey the legal and strategic norms ruling on the common European market, including those aimed at preservation and introduction of high standards for the protection of natural environment. The consciousness on the necessity for introducing of changes related with production in protected areas is increasing among small and medium enterprises in Poland. The aim of the article is to indicate essential instruments of support for the companies of the small and medium enterprises sector based on the main areas of support application.

Key words: protected areas, sustainable development, support instruments.

My contribution consisted in developing concepts, assumptions and methods, collecting statistical data, conducting empirical research, preparing the text and editing the whole (I estimate my participation at 50%)

12. **Mickiewicz, B.**, Zuzek, DK., *TENDENCIES OF CHANGES IN THE STRUCTURE OF THE ECONOMIC ACTIVITY OF RURAL POPULATION*, Economic Science for Rural Development, Issue35, Page164-171, Published 2014, ISSN1691-3078

The paper presents a new approach to the economic activity of rural population in Poland in the past ten years. The aim of the paper is to present the analysis of tendencies of changes in the structure of the economic activity of rural population in Poland. The paper focuses on the main task – to consider the changes in the structure of rural population's economic activity in respect to the changes in the numbers and the share of a particular category of individuals in the general rural population in a dynamic perspective, differentiating between the population involved and non-involved in farm activity. The main source of the research data was the results of Agricultural Index which was applied in Poland in 2011. The research also used the materials from the Main Statistical Office and authors' previous studies. The main conclusions suggest that during the 10-year period since Poland's accession to the European Union some noticeable

changes occurred in the economic activity of rural population. Demographic, educational, and social factors have played an important role. Extended education period has resulted in later entry of the youngest working age population into the labour market, which has both positive and negative consequences. It is necessary to bear in mind that activity is not a constant value assigned to a given professional or social group. Furthermore, the measurement of economic activity cannot be identical for each work station, function fulfilled or social role adopted.

Key words: economic activity, human factor, rural areas, rural population.

My contribution consisted in cooperation on the formulation of a research problem, development of the substantive concept of the article, preparation of a literature review, collection of statistical data, formulation of conclusions, development of the text and technical editing of the publication (my participation is estimated at 50%)

13. Mickiewicz, Antoni, **Mickiewicz, Bartosz**, *CHANGE OF THE POSITION OF POLISH AGRICULTURE IN RELATION WITH THE EUROPEAN UNION IN LIGHT OF THE AGRICULTURAL CENSUSES OF 2002 AND 2010*, Economic Science for Rural Development, Issue34, Page101-111, Published 2014, ISSN1691-3078

The main aim of this paper is to present the position of Polish agriculture in comparison with the EU as well as the changes that occurred between the agricultural censuses of 2002 and 2010. The study shows that between the agricultural censuses the position of Polish agriculture did not fall, while it improved in many areas. Polish agriculture can be ranked on the 4th -5 th position among the EU countries, which in relation to all 27 states of the Community constitutes a relatively high position. Agrarian structure has improved in Poland; although, not as much as it did in the EU. Farm holding fragmentation was accompanied by agrarian overpopulation, while the holding of small farms served farmers as an element of social security. The productivity of Polish agriculture was low, which was shown through the crop and yield volumes of major agricultural products.

Key words: position of agriculture in comparison with the EU, agrarian structure, agricultural population, plant and animal production.

My contribution consisted in participation in a scientific project involving the research described in the work, participation in the formulation of methodological assumptions, development of the results of statistical analysis and preliminary preparation of the text (my participation is estimated at 50%)

14. **Mickiewicz, B.**, Jurczak, R., *CHARACTERISTICS OF THE MULTIANNUAL FINANCIAL FRAMEWORK WITHIN THE CONTEXT OF THE COMMON AGRICULTURAL POLICY*, Economic Science for Rural Development, Issue39, Page68-78, Published 2015, ISSN1691-3078

The aim of the paper was to determine the spending limits for each category of activities that would allow carrying out the tasks in an orderly manner. The multiannual financial framework has been worked out for the years 1988-2020. The first prospect covered five years, four consecutive frames covered seven years. The EU budget changes occurred in proportion as the member states were coming and changed the priorities set for the Community. The EU budget was formed on the basis of 1% of gross national income for all member states. The budget for the years 1988-1992 amounted for 243.8 billion euro taking commitment appropriations into account. However, the present financial prospect (2014-2020) increased commitment appropriations to 1025, 0 billion euro. As for the share of the Common Agricultural Policy in the EU budget it has dropped from 60, 5% in 1988 – 1992 to 45.7% in 2000-2006 and up to 37.4% in the recent financial framework (2014-2020).

Key words: multi-annual financial framework, the Common Agricultural Policy, budget, financial instruments.

My contribution consisted in participating in the development of the concept of work, conducting research and developing an empirical chapter and formulating conclusions (my participation is estimated at 70%)

15. Mickiewicz, Antoni, **Mickiewicz, Bartosz** *REGIONAL DIFFERENTIATION OF MILK PRODUCTION QUOTA IN POLAND AND ITS INFLUENCE ON THE MILK MARKET*, Economic Science for Rural Development Issue39, Page198-207, Published 2015, ISSN1691-3078

The paper characterizes the milk market in Poland taking its limitation with quota use into consideration. The task of the milk market regulation was implemented by the Agricultural Market Agency, which specified direct suppliers and laid down the limits of wholesale quotas. It resulted in the identification of the regions in the country with the high concentration of milk production. In 2004 – 2013, there was a noticeable increase in cows' milk yield and, on the contrary, there was an increasing concentration of production, which enabled the reduction of unit production costs. Although the number of entities purchasing milk did not change (over 300), there emerged the consortia that dominated on the market. The departure from the policy of milk quota in 2015 will increase its supply, which may result in the decrease of milk prices for the producers.

Key words: milk quota, milk production level, entity purchasing milk

My contribution consisted in participation in a scientific project involving the research described in the work, participation in the development of the concept of work and the scope of bibliographic analysis, conducting bibliographic analysis and developing its results, participation in the development of the text of the empirical chapter (my participation is estimated at 50%)

16. Dutka, Bronislaw., **Mickiewicz, Bartosz.**, *FARM ADVISORY SERVICE IN POLAND IN LIGHT OF LEGAL REGULATIONS, Nordic View to Sustainable Rural Development, Page504-507, Published 2015*

The paper presents process of farm advisory system creation (FAS) in European Union Member States, basing on report prepared for the Parliament and European Council. The aim of the paper is to present development of forms and methods of farm advisory service in Poland on the background of legal changes in the state and in other EU Member States. The authors concluded that agricultural farm advisory service was responsible for adjustment processes of rural areas and agriculture to the requirements of the competitive economy in the European Union. At the national level, it created the need to develop a new perspective on the place and role of agricultural farm advisory service.

Key words: advisory system, Common Agricultural Policy, farm advisory service, rural areas development.

My contribution consisted in participating in the development of the concept of work, conducting research and developing an empirical chapter and formulating conclusions (my participation is estimated at 60%)

17. Pilvere, Irina, Nipers, Aleksejs, **Mickiewicz, Bartosz.**, *BIOECONOMY DEVELOPMENT POTENTIAL BASED ON MORE EFFICIENT LAND USE IN THE EU*, 7th international scientific conference rural development 2015: towards the transfer of knowledge, innovations and social progress, Book Series Rural Development, DOI10.15544/RD.2015.101, Published 2015

Europe 2020 Strategy highlights bioeconomy as a key element for smart and green growth in Europe. Bioeconomy in this case includes agriculture, forestry, fisheries, food and pulp and paper production, parts of chemical, biotechnological and energy industries and plays an important role in the EU's economy. The growth of key industries of bioeconomy – agriculture and forestry – highly depends on an efficient and productive use of land as a production resource. The overall aim of this paper is to evaluate opportunities for development of the main sectors of bioeconomy (agriculture and forestry) in the EU based on the available resources of land. To achieve this aim, several methods were used – monographic, analysis and synthesis, induction and deduction, statistical analysis methods. The findings show that it is possible to improve the use of land in the EU Member States. If all the Member States reached the average EU level, agricultural products worth EUR 77 bln would be annually additionally produced, which is 19 % more than in 2014, and an extra 5 billion m³ volume of forest growing stock would be gained, which is 20 % more than in 2010.

Keywords: bioeconomy, agricultural and forest area, efficiency, productivity.

My contribution consisted in participation in a scientific project involving the research described in the work, participation in the development of the concept of work and

methodological assumptions for bibliographic analysis and the development of the text of the empirical chapter (my participation is estimated at 33%)

18. **Mickiewicz, B**, Mickiewicz, A, *ANALYSIS OF ACTIVITIES IMPLEMENTED WITHIN THE AXIS III "THE QUALITY OF LIFE IN RURAL AREAS AND DIVERSIFICATION OF THE RURAL ECONOMY" RURAL DEVELOPMENT PROGRAMME 2007-2013*, Economic Science for Rural Development, Issue39, Page208-217. Published 2015, ISSN1691-3078

The article deals with the authors' discussion on the activities defined in the third priority axis of the RDP 2007-2013. The mentioned axis included the implementation of four activities which were directed at the diversification of rural areas economy and quality improvement of rural inhabitants functioning in these areas. The aim of the paper was presentation of research on the third priority axis in quantitative terms and the rate of the EU funds implementation. The research was conducted taking into account the implementation of tasks in quantitative and material (financial) terms. The comparison of the number of tasks in the programme was made with reference to the number of decisions issued and it was demonstrated that no task was fully implemented at the beginning of 2014. Better performance of planned activities was noticed with measures realized by the Marshal's Offices of Poland's provinces.

Key words: the quality of life, microenterprises, services for inhabitants, village renewal

My contribution consisted in participating in the development of the concept of work, conducting research and developing an empirical chapter and formulating conclusions (my participation is estimated at 50%)

19. **Mickiewicz, B**, Mickiewicz, A, *DIRECTIONS OF DEVELOPMENT OF REGIONAL POLICY WITHIN THE FRAMEWORK OF THE LOCAL DEVELOPMENT STRATEGY FOR RURAL AREAS*, Economic Science for Rural Development, Volume41, Page104-113, Published 2016, ISSN1691-3078

The article discusses the issue of regional policy in the context of the Leader approach, which adopted the form of a Community-Led Local Development measure. A measure is a new territorial instrument introduced by the European Commission aiming at the integration of previously dispersed financial instruments connected with the Cohesion Policy. The new Cohesion Policy aims at reducing disparities in the level of development of various regions as well as at increasing competitiveness and employment. The Leader approach within the framework of the fourth priority axis of the RDP 2007-2013 was realized by means of three measures. The evaluation shows that the strategies prepared by LAGs covered over 50 % of rural areas. The management boards and members of LAGs demonstrated great involvement in the activities for taking advantage of local resources and the potential of rural areas. LAGs were primarily involved in the cultivation of traditions, development of tourist services as well as promotion of a healthy lifestyle. Community-Led Local Development is a new territorial instrument introduced by the European Commission to be implemented in the financial perspective for the years 2014-2020. It was assumed that this instrument should be based on the

Leader approach applied in the years 2007-2013 under the Common Agricultural Policy and it should preserve its fundamental provisions. CLLD is an instrument aiming at performing the partnership agreement and introducing programmes for the effective implementation of the Cohesion Policy provisions. New measures include preparatory support constituting a bridge between the realization of the LDS from the period of 2007-2013 and a new 2014-2020 programming period.

Key words: local development strategy, local action group, community-led local development.

My contribution consisted in developing concepts, assumptions and methods, collecting statistical data, conducting empirical research, preparing the text and editing the whole (I estimate my participation at 50%)

20. Mickiewicz, Anthony ; Mickiewicz, Bartosz ; Jurczak, Robert, THE NEW PHENOMENA IN THE ORGANIC FARMING IN THE CONTEXT OF ACTIONS INCLUDED IN THE 2014-2020 RURAL DEVELOPMENT PROGRAMME (RDP), Economic Science for Rural Development, Volume41, Page114-122, Published 2016, ISSN1691-3078

The study describes the effects of the organic farming in the current 2014-2020 financial perspective, which were chosen from the agri-environmental action. The action is addressed to farmers who want to put their production onto organic tracks. In this respect they receive an advisory support from agri-environmental services and a financial support as a compensation for the lost income. There are two stages in the process of becoming an organic farmer. In the first stage, which involves changing (conversion) of the production, a farmer must give up agrochemicals and adopt practices and methods prevailing in this field. In the second stage, he/she enjoys the status of an organic farmer to the full extent. A farm is subjected to the guidelines from the Council Regulation (EC) No 834 of 2007 and to the control by certification bodies. The amount of financial support instruments depends on the farm size, type of production and stage of conversion.

Key words: organic farming, financial support, adjustment of production.

My contribution consisted in developing concepts, assumptions and methods, collecting statistical data, conducting empirical research, preparing the text and editing the whole (I estimate my participation at 50%)

21. **Mickiewicz, B**, Mickiewicz, A, *THE IMPORTANCE OF LAND CONSOLIDATION IN POLAND FOR THE PROCESSES OF SHAPING AGRARIAN STRUCTURE*, Economic Science for Rural Development, Issue44, Page126-135, Published 2017, ISSN1691-3078

The paper presents the problematic of the merge and exchange processes of land under the following programmes of agricultural land consolidation. By consolidating of land, there was

activity for better creation of rural space in order to achieve comprehensive improvement of conditions for farming. According to the Act (1982) there were taken activities to shape the structure of the area, the rational design of land distribution, adjust the boundaries of the property to the system of water management facilities, construction of roads and terrain. After the Polish accession to the EU, there was created a possibility of co-financing of agricultural land consolidation under the three successive EU programmes. The volume of these actions was defined by the level of support, thus in 2004-2006 there were 31 projects realized for the amount of 15.1 million EUR, and in 2007-2013 another 109 consolidation projects were completed - for a total amount of 93.9 million EUR. In the current financial perspective, the indicative budget of the RDP foresees 139.0 million EUR for land consolidation, including 88.4 million EUR from EAFRD means. The analysis of changes of the number of agricultural parcels, which were recorded between agricultural censuses of 2002 and 2010, shows that consolidation of farms was noticed during that time. In 2010, the total number of agricultural parcels dropped from 2,916.3 thousand in 2002 to 2264.6 thousand (22.3 %). The biggest decrease of farms was noticed in the group of holdings with one parcel (44.5 %) and holdings with 2-3 parcels (28.1 %). In the group of holdings having 6-9 parcels, their number increased by 26.8 % and in the group of 10 or more parcels we noticed the increase of 94.4 %

Key words: land consolidation, program of rural development, agricultural parcel, union fund

My contribution consisted in cooperation on the formulation of a research problem, development of the substantive concept of the article, preparation of a literature review, collection of statistical data, formulation of conclusions, development of the text and technical editing of the publication (my participation is estimated at 50%)

22. Mickiewicz, A, Mickiewicz, B, Jurczak, R, Lisiak, S, PROCESS OF SHAPING OF INSTITUTIONAL SUPPORT FOR AGRICULTURAL SECTOR IN POLAND, Economic Science for Rural Development Issue44, Page116-125, Published 2017, ISSN1691-3078

The primary objective of the study was to characterize the selected organisational units subordinate to and supervised by the Minister of Agriculture. The functioning of a total of 69 units, including 7 organisational units subordinate to the minister and 62 ones supervised by him, depends on this official. 11 ministerial bodies among them were included in the study. These units have the legal basis, such as acts, and are financed from the state budget. The analysed bodies were established to fulfil the functions of control, supervision and payment in the sphere of agriculture and rural areas. In total, the surveyed units employ 34.8 thousand people, including 2.8 thousand (7.9 %) at the central level, 18.2 thousand (52.2 %) in the provinces or regions, and 13.8 thousand (39.5 %) in the structures of the counties. The organisational units fulfil their role in the compliance with the EU legislation, especially in the sphere of activities covered by the Common Agricultural Policy.

Key words: organisational unit, control, supervision, agency

My contribution consisted in participation in a scientific project involving the research described in the work, participation in the formulation of methodological assumptions,

development of the results of statistical analysis and development of a preliminary version of a scientific article (my participation is estimated at 35%);

23. Mickiewicz, Bartosz, Pilvere, Irina, SHAPING THE COMMON ORGANISATION OF AGRICULTURAL MARKETS IN THE NEW PROGRAMMING PERIOD (2014-2020), Economic Science for Rural Development Issue45, Page159-167, Published 2017, ISSN1691-3078

The elaboration compares the regulation from 2013, including the current regulation of the common organisation of agricultural markets, and the previous regulation from 2007. The provisions from 2007 significantly changed the whole legal and organisational structure of existing sectoral agricultural markets. Independent structures of single sectoral markets were replaced with the single common organisation of the agricultural market. The new EP and Council Regulation from 2013 constitutes the continuation of directions of changes implemented in 2007. Moreover, the horizontal approach to market regulation has been maintained that leads to further moving away from the sectoral approach. The regulation integrates previously delegated provisions in one act which allowed for taking the comprehensive look at the way of conducting market policy. The agricultural market has been extended to include three new sectors, that is, the markets of apiculture products, silkworm rearing as well as ethyl alcohol of agricultural origin. A comprehensive look at agricultural markets in the European scale is not always reflected in all member states. The lack of regulations in the EU legislation results in the fact that the decisions take the form of self-execution, not always consistent with European decisions.

Key words: agricultural markets, programming, financing, regulations

My contribution includes participation in the development of the concept of the article and the authorship of the part concerning selected agricultural markets in Poland and EU and the potential of their impact on the functioning of business entities (my share is estimated at 50%);

24. Mickiewicz, Bartosz, MODIFICATIONS OF THE CURRENTLY IMPLEMENTED EUROPEAN UNION COMMON POLICY CONCERNING DIRECT PAYMENTS, 8TH INTERNATIONAL SCIENTIFIC CONFERENCE RURAL DEVELOPMENT 2017: BIOECONOMY CHALLENGES, Page1195-1198, DOI10.15544/RD.2017.047, Published 2017

The paper presents the EU trend towards simplifying of the European legislation in the Common Agricultural Policy. Author remarks the Multi-annual Financial Framework should be focused on the simplification of the CAP and points out that the law should be created in simple, transparent and understandable manner for farmers. EU Members States must respect the principles of subsidiarity, proportionality and coherence. Paying attention to direct payments, there is underlined the importance of land greening in relation to the diversification of crops and the preservation of permanent agricultural land. Author concludes that only professional farmers

who have acquired payment entitlements. The review of CAP has not changed the level of funding of agricultural policy in present financial perspective.

Keywords: direct payments, review of CAP, rural areas, simplification

My contribution includes participation in a scientific project involving the research described in the paper, the development of a methodology for the construction of the agricultural direct payments,, the performance of calculations for Polish, the development of research results and the entire text.

25. Mickiewicz, Bartosz, Brocki, Wojciech, *EMPLOYMENT AND WAGES IN FISHERIES OF THE BALTIC RIM COUNTRIES*, Economic Science for Rural Development, Issue48, Page186-194, DOI10.22616/ESRD.2018.084 Published 2018, ISSN1691-3078

There was employed 12.4 thousand sea fishermen in the Baltic Sea basin countries in 2014. They were only 0.02 % of the total number of employees. The biggest number of fishermen was in Poland - 2.5 thousand. people (0.02 %). However, the largest share in fishermen's general employment took place in Estonia, where it amounted to 0.37 % (2.3 thousand fishermen). Employment in the Baltic fisheries has been declining due to the deteriorating state of fish stocks, which affects the reduction of fishing fleets in individual countries. Wages in the Baltic fisheries mainly depend on the form of fishing activity and the level of economic development in individual countries. The highest level was achieved in the "old countries" of the European Union and in the open sea fishery. On the other hand, the lowest earnings were in coastal fishing and the "new countries" of the European Union.

Key words: Baltic Sea, fisheries, employment, wages.

My contribution consisted in participation in a scientific project involving the research described in the work, the development of an empirical chapter, participation in the development of conclusions (my participation is estimated at 50%)

26. Mickiewicz, B, Mickiewicz, A., *THE IMPACT OF NATURA 2000 PROTECTED AREAS ON THE ECONOMIC DEVELOPMENT OF COMMUNITIES LOCATED WITHIN THE GREEN LUNGS OF POLAND (NORTH-EASTERN POLAND)*, Economic Science for Rural Development, Issue48, Page180-185, DOI10.22616/ESRD.2018.083, Published 2018, ISSN1691-3078

The paper presents possibilities of investments' realization in Nature 2000 areas in Poland and majors of Nature 2000 communes opinions about role of the network in socio-economic development of managed areas by them. It was focused on the presentation of legal possibilities of investment, by conducting analysis of conditions which potential investor is obeyed to fulfil in order to invest in those protected areas. Basing on typified to research communes with network Nature 2000, laid on area of Green Lungs of Poland, there were presented majors' opinions about restrictions and potential profits resulting from fact of Nature 2000 area

possessing. It was underlined that most of inquired majors had declared that Nature 2000 areas in analysed communes had had limitations for inflow of investments and almost all of them had posited necessity of allocation of additional financial means by state budget in order to compensate for the effects resulting from Nature 2000 functioning in their areas.

Keywords: Nature 2000, investments, socio-economic development, Green Lungs of Poland.

My contribution consisted in participation in a scientific project involving the research described in the work, participation in the formulation of methodological assumptions, development of the results of statistical analysis, formulation of conclusions and development of the text.

27. **Mickiewicz, B**, Mickiewicz, A., Jurczak, Robert., *PERFORMANCE CHARACTERISTICS OF ACTIVITIES IN PRIORITY 3 OF RURAL DEVELOPMENT PROGRAM 2014-2020*, Economic Science for Rural Development Volume47, Page203-212, DOI10.22616/ESRD.2018.024, Published 2018, ISSN1691-3078

The study covered five activities which, according to the European regulations, were included in Priority 3 of RDP 2014-2020. The aim of this priority is improvement in the organization of the food chain, promotion of animal welfare and risk management in agriculture. Most support instruments within the entire priority were pointed to processing and marketing of agricultural products (42.8 %) and to establishing of producer groups and organizations (24.9 %). The planned product indicators in the first case were set at the level of 1.5 thousand beneficiaries, in the second case at the level of 1.8 thousand groups, which will gather 36 thousand farmers. In general, 1619.0 million euros are intended for activities under Priority 3, including 1030.1 million euros from the European Agricultural Fund for Rural Development (EAFRD), or (12.0 %) of the indicative budget of the Rural Development Program (RDP), set at 13.5 billion euros, including 8.6 billion euros from the EAFRD.

Keywords: priority, activities, program, support

My contribution consisted in participating in a scientific project involving the research described in the work, participation in the development of the concept of empirical research and the development of an empirical chapter (my participation is estimated at 50%)

28. Mickiewicz, A., Mickiewicz, B., Gotkiewicz, W., *QUALITY EVALUATION SCHEMES FOR AGRICULTURAL PRODUCTS AND FOODSTUFFS IN POLAND IN PREVIOUS AND PRESENT FINANCIAL PERSPECTIVE OF EU*, Economic Science for Rural Development, Volume52, Page175-181, DOI10.22616/ESRD.2019.119, Published 2019, ISSN1691-3078

The study presents quality schemes for agricultural products and foodstuffs that have been developed since the EU was founded. The schemes were based on the need to strive for diversification of agricultural production, to identify ways to increase the market value of

products, while protecting consumers against inaccurate information on the ways and methods of production. The implementation of schemes has been described in the Polish context and on the example of two measures included in the next financial perspectives. The RDP 2007-2013 has been identified as using financial instruments at a low level. It means that the beneficiaries are not interested in activities related to the quality of agricultural products. In addition, the implementing body (ARR – Agricultural Market Agency) has not taken advantage of all the opportunities for encouraging beneficiaries to switch to quality production. The call for applications within the RDP 2014-2020 suggests a possibility of failure to meet specific indicators at the level of 25.9 thousand, due to the adopted criteria and difficulties in accessing the support.

Keywords: quality of agricultural production, financial perspective, financial instruments, participation of beneficiaries.

My contribution consisted in cooperation on the formulation of a research problem, development of the substantive concept of the article, preparation of a literature review, collection of statistical data, formulation of conclusions, development of the text and technical editing of the publication (my participation is estimated at 50%)

29. Mickiewicz, B.,... Dunn, James W.: *Development of Solid Biomass Production in Poland, Especially Pellet, in the Context of the World's and the European Union's Climate and Energy Policies*, ENERGIES, Volume14, Issue12, Article Number3587. DOI10.3390/en14123587, Published 2021, eISSN1996-1073

The aim of this research was to present the changes in biomass production, especially pellets in Poland, in the context of world's and European Union's (EU) climate and energy policy, compared to other renewable energy sources. We also analyzed the law concerning the biomass production in the EU. Finally, we have elaborated the prognosis of the pellet production on the world scale. We have used different methods to achieve the goals, among which the most important are the Generalized Autoregressive Conditional Heteroscedasticity (GARCH model) and prognosis. We also compared the results of pellet production in different countries in the European Union. The results were presented in tabular and graphic form. We have received the data from Eurostat and the Main Statistical Office (MSO) in Poland. Our research proves the increase of biomass and pellet production on the global scale. Moreover, global wood pellet production increased by 972% in the years 2005–2018. We can conclude that this increase was the result of increasing demand for renewable energy sources. The first research hypothesis assumed that the changes in the European Union Policy have impacted the increase of biomass production in the world. Our prognosis confirmed the second hypothesis that the development of pellets will increase as the result of increasing global demand. The use of more renewable energy sources is necessary to decrease the degradation of the environment.

Keywords: biomass production; pellet production; Poland; climate and energy policy; renewable energy sources

My contribution consisted in participation in a scientific project involving the research described in the work, participation in the development of the concept of work and the scope of bibliographic analysis, conducting bibliographic analysis and developing its results, participation in the development of the text of the empirical chapter (my participation is estimated at 15%)