Establishing Research Rural Development Network for Joint Research Cooperation





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UNIVERSITÉ DE FRIBOURG UNIVERSITÄT FREIBURG



Establishing Research Rural Development Network for Joint Research Cooperation

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Dear reader,

Since its establishment in 1996, the Association of Agricultural Agronomists of the Republic of Macedonia (AAEM), operates as a central think-tank organization in the area of socio-economic analysis in agriculture, acting as an umbrella organization summoning the human capacities in the country in this field.

While researchers from the region have cooperated in numerous initiatives, it became clear that a better cross-national cooperation will boost the research and innovation in our field. A joint view on research and exchange of results is particularly important bearing in mind the long time needed in agriculture between the initiation of research and application of benefits in practice. A broader cooperation of researchers from countries with similar issues and interdependent economies accelerates the use of new solutions, speeds up the acceptance and dissemination of new ideas, and it helps target the research agenda.

On behalf of the Association of Agricultural Economists of the Republic of Macedonia (AAEM), I would like to support the establishment of the network that presents an initiation of our effort to create a base for regionally coordinated approach to research in the area of agricultural economics and rural development. We sincerely hope that this initiative will facilitate exchange of data, ideas and scientific knowledge in the region.

Prof. Dr. Nenad Georgiev President of AAEM

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ABOUT THE PROJECT

"Establishing the Research Rural Development Network for Joint Research Cooperation"

The complex and diverse aspects of rural development, with its strong impact on the economic and social structure and environment, require human and institutional capacities to identify the needs and create a proper approach to address them. The need for more intense and formal cooperation of the scientific community, especially in the Western Balkan region, was recognized during the presentation of the results of the previously RRPP funded project "The impact of socio-economic structure of rural population on success of rural development policy".

Hence, the aim of this project is to establish a network of researchers working in the field of rural development by connecting the scientific community from South Eastern Europe and other recognized European institutions. This Research Rural Development Network (RRDN) will ease the access to the researchers and foster their stronger cooperation. It will enable exchange of empirical, theoretical and methodological approaches for better understanding of the needs for rural development and providing evidence-based recommendations to policy makers and local communities. Such network will facilitate the process of finding partners and establishing research consortia for implementing concrete project ideas.

The project is composed of group of activities for establishing a network related to rural development, as a ground for long-term cooperation among researchers.

One of the tangible outputs is the RRDN Contact Book, as an initial attempt to list the researchers from the South Eastern Europe working in the field of rural development. The list is neither exclusive, nor complete. It is based on the first communication conducted early July 2016 and the received feedback from researchers in the region. The updated version will be found on the web page of the Association of Agricultural Economists of the Republic of Macedonia (www.zaem.mk).

The Rural Development Forum, organized as a first gathering of these researchers, covers different rural development issues presented by prominent keynote speakers and followed by few presentations with more regional focus. Considering the versatility of aspects that need to be addressed when studying rural development, it was quite a challenge to prepare the Agenda. We had no intention to prioritize any topic; thus we asked the keynote speakers to choose a topic that they find important, novelty or attention demanding. This will bring fresh ideas on the table and will give incentive for choosing other interesting topics for the following forums.

Apart from discussion at the topics, the Forum also includes discussion on the formalization and sustainability of the network. Suitable communication and funding solutions, coupled with the existing willingness and enthusiasm, we believe will contribute to its sustainability.

On behalf of the Organizing Committee and the project, I wish a successful Forum and fruitful future cooperation through our RRDN Network.

Prof. Dr. Ana Kotevska, Project Leader

RURAL DEVELOPMENT FORUM

AGENDA

Rural Development Forum 17th-18th November, 2016, Holiday Inn, Skopje, Macedonia

NOVEMBER, 17th 2016, THURSDAY

9 ⁰⁰ -9 ³⁰	Registration of the participants
930-1000	 Opening of the event Prof. Dr. Ana Kotevska, Leader of the Project "Establishing the Research Rural Development Network for Joint Research Cooperation MSc. Aleksandra Dimova Manchevska, Coordinator of the Research Regional Promotion Program (RRPP) in Macedonia Prof. Dr. Nenad Georgiev, President of the Association of the Agricultural Economists of the Republic of Macedonia
10 ⁰⁰ -10 ³⁰	The importance of researchers' networking: linking the past and the future
	 Prof. Dr. Dragi Dimitrievski, Dean of the Faculty of Agricultural Sciences and Food – Skopje, Ss. Cyril and Methodius University in Skopje, Macedonia
10 ³⁰ -11 ⁰⁰	Coffee break
11 ⁰⁰ -12 ⁰⁰	Quantitative Methods for Policy Analysis Prof. Dr. Martin Huber, University of Fribourg, Switzerland
12 ⁰⁰ -13 ⁰⁰	 The out-migration from rural areas and structural changes in agriculture Prof. Dr. Natalija Bogdanov, University of Belgrade, Serbia
13 ⁰⁰ -14 ⁰⁰	Lunch
1400-1500	 Cooperatives as Networks and Coopetitive Networks Prof. Dr. Konstantinos Karantininis, Swedish University of Agricultural Sciences (SLU), Sweden
15 ⁰⁰ -15 ¹⁵	 Farmer behavior as a research focus in Western Balkan Countries Prof. Dr. Aleksandra Martinovska Stojceska and Prof. Dr. Ana Kotevska, University Ss. Cyril and Methodius University in Skopje, Macedonia
15 ¹⁵ -15 ³⁰	 Social Network Analysis in Western Balkan Countries Assist. Prof. Dr. Emelj Tuna, Ss. Cyril and Methodius University in Skopje, Macedonia
15 ³⁰ -16 ⁰⁰	Coffee break

- 16⁰⁰-17⁰⁰ Country presentations on RD issues
 - **Development profiles of farms in Slovenia**

Prof. Dr. Majda Černič Istenič, University of Ljubljana, Slovenia
 Rural typology in Serbia as an instrument for managing of rural

development
Dr. Marija Drobnjaković, Geographical Institute "Jovan Cvijić" of the Serbian Academy of Sciences and Arts, Serbia

Local knowledge transfer in rural development using a multi-criteria approach

- Adriana Mihnea, Bucharest University of Economic Studies, Romania Kosovo: Agricultural Policy Developments
- Prof. Dr. Mihone Kerolli-Mustafa, International Business College, Kosovo

NOVEMBER, 18th 2016, FRIDAY

9 ⁰⁰ -9 ³⁰	Morning networking coffee
9 ³⁰ -10 ³⁰	 Commercialisation, Diversification or Subsistence? Pathways for Smallholder Farms in South-Eastern Europe Dr. Judith Möllers, Leibniz Institute of Agricultural Development in Transition Economies (IAMO), Germany
10 ³⁰ -11 ³⁰	 Sustainable food systems: the multiple impacts of food waste Prof. Dr. Matteo Vittuari, University of Bologna, Italy
11 ³⁰ -12 ⁰⁰	Coffee break
12 ⁰⁰ -13 ⁰⁰	 Designing transdisciplinary European research projects in support of a sustainable development of agriculture and rural areas Prof. Dr. Karlheinz Knickel, Research Coordinator, Universidade de Évora, Portugal, Visiting Research Professor, Centre for Rural Research (CRR) Trondheim, Norway, Research Associate, Institute for Rural Development Research (IfLS) Frankfurt/M, Germany
13 ⁰⁰ -14 ⁰⁰	Lunch
14 ¹⁵ -14 ³⁰	 Network sustainability: Alternative grant programs Assist. Prof. Dr. Mijalce Santa, Ss. Cyril and Methodius University in Skopje, Faculty of Economics – Skopje, Macedonia,
14 ³⁰ -15 ⁴⁵	Discussion on sustainability and formalization of the network

15⁴⁵-16⁰⁰ Closing the event

KEYNOTE SPEAKERS

Dragi Dimitrievski

Ss. Cyril and Methodius University in Skopje Faculty of Agricultural Sciences and Food - Skopje Institute of Agricultural Economics Department of Agricultural Policy



Dr. Dragi Dimitrievski is a full professor at the Institute of Agricultural Economics at the Faculty of Agricultural Sciences and Food-Skopje, Ss. Cyril and Methodius University in Skopje. Since 2009 he is a Dean of the Faculty of Agricultural Sciences and Food – Skopje since 2009. His teaching load covers Agricultural Policy and Human Resources Development on the undergraduate studies, as well as Agricultural Policy and Project Management on the postgraduate level.

Prof. Dimitrievski has research interests and contributions in applied macro-economic analysis in agriculture, and is actively involved as researcher and national expert in different national and international projects related to agricultural and rural development policy analysis. He also contributes to the development of significant number of strategic documents, being consulted on different important issues of agricultural economics and rural development. Since 2013, he is appointed as a SWG national expert for streamlining of the agriculture and rural development policies of South-Eastern European countries for EU accession.

Prof. Dimitrievski has published a range of articles in academic journals, international conference proceedings and chapters in different monographs, and is an author of two textbooks in the field of agricultural economics.

The importance of researchers' networking: linking the past and the future

Summary

The rural development as a concept of development of areas outside the urban zones is gaining more significance and becomes unavoidable part of countries' economic and social policies. The rural development becomes important in the second half of the 20th century, after the intensive industrial expansion and growth of the urban areas, when the differences between the rural and urban areas become more evident. This is followed by big migrations from the villages to the cities, resulting in human capital outflow from the rural areas and causing a lower use of other production resources. In addition it resulted in decrease of the income in these areas, as well as their continuous lagging behind in comparison with the urban areas.

According to the socio-economic systems (centrally planned system in the socialistic countries of Eastern Europe and market oriented system in the Western Europe), there are two basic rural development approaches. In the Eastern European socialistic countries, the focus was on development of the agriculture and the big "combinats" as part of its structure, becoming a main holder of the food production. There were no serious policies for regulating problems such as poverty and depopulation of villages. In the Western European countries, the rural development process was supported by an intensive investment in family agricultural

households, becoming contemporary carriers of the agricultural and general development of these areas.

In the former Yugoslavia, the first initiatives of rural development policies appear in the seventies of the last century, through the policies of the regional development. New institutions and funds addressed the less developed areas by providing budgetary support for investments in production capacities and infrastructure.

This rural development approach was also implemented in Republic of Macedonia until the beginning of the 21st century. Since then, the modern concept of the rural development is considered as a multidisciplinary approach, with a focus on improvement of living conditions of the rural population and obtaining adequate income. In order to implement these policies, the boundaries of rural areas are clearly defined by implementation of EU criteria. The policies determine the main problems in rural areas and create financial programs for support of entrepreneurship and infrastructure, as well as other issues such as improving the education, health and other social aspects.

As the rural development gains on importance, there is an increased need and interest for research and scientific approach in this field. Consequently, the research and the educational institutions introduced "conditionally new" scientific and academic discipline – Rural Development. Although in the past the problems of rural development were partially covered by the agricultural economics and the rural sociology, the new concept embrace the rural development issue as a necessity.

Considering the multidisciplinary character of the rural development, it will always be addressed from different aspects, including the innovative technologies that contribute to overall rural development. In this context, the researchers should always have an interdisciplinary approach and by developing networks of experts should provide an integrative approach in addressing and solving rural development issues. In the Republic of Macedonia many studies are conducted by a team of different experts in the area of rural development, thus developing informal networks of researchers. The rural areas do not have firm borders and spread on other neighboring countries. Therefore there is a need of establishing regional networks of various experts for rural development, enabling exchange of experience, knowledge, data and application of previously successfully implemented solutions.

The Faculty of Agricultural Sciences and Food-Skopje strongly supports this modern concept of multidisciplinary approach in rural development. In the process of building capacities and raising awareness for the importance of rural development, the faculty offers and successfully implements Rural Development as an academic discipline for more than 15 years, as part of the Rural Development Department.

Martin Huber

University of Fribourg, Switzerland Faculty of Economics and Social Sciences Department of Economics Chair of Applied Econometrics – Evaluation of Public Policies



Dr. Martin Huber is Professor of Applied Econometrics and the Evaluation of Public Policies at the University of Fribourg, Switzerland. He received his Ph.D. from the University of St. Gallen (2010), where he was also appointed as Assistant Professor of Quantitative Methods in Economics, and visited Harvard University in 2011–2012. His econometric research focuses on the evaluation of policy interventions and comprises both methodological contributions as well as empirical applications, predominantly in the fields of labor, health and education economics, using data from various countries in Europe and all over the world.

Martin Huber has published in a range of scientific journals in the fields of empirical economics, econometrics, and statistics, such as the Journal of the American Statistical Association, the Journal of Econometrics, the Review of Economics and Statistics, the Journal of Business and Economic Statistics, the Journal of Health Economics, and others. He has also participated in several scientific projects evaluating policy interventions in various fields such as labor markets and welfare systems.

Quantitative Methods for Policy Analysis

Summary

The last decades have seen important advances in the development of quantitative methods for analysing the impact of policy interventions (e.g. labor market, health, tax, or development policies). These methods become more and more standard for evaluating the measures of regional or federal administrations as well as supra- or international institutions like the European Union or the World Bank. At the center of interest is the assessment of the causal effect of some policy (e.g. a publicly funded training for jobseekers) on an outcome of interest (e.g. employment or earnings), by inferring what the outcome would look like in the presence and in the absence of the policy.

It is aimed to give an intuitive (rather than technical) introduction to some of the most prominent statistical tools for policy analysis. The methods considered include (i) social experiments planned and conducted by a researcher, (ii) "natural" experiments that are not conducted by a researcher but "happen" by political action and are analysed, for instance, by so-called "regression discontinuity" or "difference-in-differences" designs, (iii) evaluation based on so-called "instruments" that influence the likelihood to be exposed to the policy, (iv) evaluation based on finding observations exposed and not exposed to the policy that are otherwise similar in terms of observed characteristics ("selection on observables").

Social experiments are the most intuitive and from a statistical perspective most convincing approach to policy analysis. They consist of randomly (i.e. "coincidently") granting or denying individuals access to some policy, e.g. a training program. Because the groups exposed and not exposed to the training were merely chosen by luck, they are similar with respect to any characteristics other than training participation. Therefore, the causal effect of the training can be assessed by simply comparing the outcomes (e.g. the employment share) of both groups, as there are no differences in other important characteristics (e.g. education, age, ...) that could also have an influence on the outcome.

It is not always possible to conduct social experiments (e.g. due to financial or ethical reasons) but sometimes, they happen "naturally" through political action. Suppose, for instance that according to the labor market regulations, jobseekers older than 60 are eligible for higher unemployment benefits than individuals aged 60 or younger. If individuals cannot manipulate or influence the policy, the context is comparable to an experiment for groups of jobseekers slightly younger and slightly older than 60: Both groups are very similar in terms of age and should therefore be comparable (like in an experiment), apart from the difference in the policy. Therefore, comparing, for instance, the employment outcomes of individuals slightly below and above the age cut-off - an approach known as "regression discontinuity design" - yields the causal effect of the policy in this "natural experiment".

A further example for a natural experiment is when some policy changes over time for one group but remains unchanged for another one. Suppose, for instance, that a reform increases the unemployment benefits for jobseekers aged 60 plus in 2015 while the benefits remain unchanged for those below 60. Assume now that we base our analysis not exclusively on individuals close to the age cut-off, which allows that the groups affected and not affected by the policy change can be quite heterogeneous in terms of age and therefore, also in employment chances. Simply comparing the employment outcomes of both groups after the policy change in 2015 does not yield the causal effect of the policy change, because differences in employment might either be caused by the policy or age. One effect could not be distinguished from the other. A second potential approach is to compare the outcomes of individuals aged 60 plus before and after 2015 to measure the policy effect. This, however, requires that the outcomes at various points in time are only affected by the policy change and not by other characteristics that could potentially change over time, such as general economic conditions that influence employment chances. That is, if there is a time trend in employment on top of the effect of the policy change, the before-after approach among the 60 plus fails to evaluate the causal effect. However, if the time trend in employment can be assumed to be the same across various age groups, it can be measured by the before-after comparison among individuals below 60 that are not affected by the policy. Subtracting from the beforeafter difference in employment among the 60 plus (which consists of the policy effect plus the time trend) the before-after difference among those below 60 (which consists of the time trend alone) therefore yields the policy effect. That is, taking the "difference in (before-after) differences" across age groups allows evaluating the policy effect.

A further approach to policy analysis is the use of so called "instruments" that affect the policy, but not directly the outcome of interest. This can be best described in the context of a broken (i.e. failed) experiment: Assume that jobseekers are randomly (not) assigned to be eligible for a training program, but that some of those assigned to it decide not to take it. While the assignment is random, the decision to actually participate is not a "coincidence" anymore: Those not participating despite being eligible might, for instance, be less motivated than others. In this case, the motivation level of actual participants and non-participants (rather than eligible

and ineligible individuals) differs, such that comparing the employment outcomes of both groups would mix up the effect of the training with that caused by differences in motivation. Now assume that the assignment affects the participation decision of at least some individuals, but does not directly affect employment other than through training participation. This seems plausible if assignment per se does, for instance, not affect the motivation at work. Then, the following strategy can be applied: First, one measures the effect of assignment on the outcomes, by comparing the outcomes of the groups assigned and not assigned to the training). In the absence of a direct effect, this corresponds to the impact of assignment on trainings participation times the effect of training participation, by comparing the participation decisions of the groups assigned and not assigned to the training of the groups assigned and not assigned to the training. Finally, dividing the first effect by the second one yields the impact of training participation on the outcome.

The last strategy considered is based on the so called "selection on observables assumption". It postulates that the researcher can measure, e.g. based on a questionnaire, all important characteristics that at the same time affect the likelihood to receive a policy and the outcome of interest. Such characteristics could include, for instance, age, motivation, and others. The idea is to only compare the outcomes of individuals exposed and not exposed to the policy that are similar with respect to these characteristics. This assures that one compares "apples with apples" when assessing the impact of the policy, in order to avoid that the policy effect is mixed up with effects due to differences in the characteristics. The aim is thus to mimic the experimental context with the help of observed information: After creating groups with and without exposure to the policy that are similar in observed characteristics, differences in the outcomes are assumed to be exclusively caused by differences in the policy. The "selection on observables assumption" therefore implies that among individuals with the same characteristics, the policy is as good as randomly assigned.

Which of the various approaches appears most suitable (if any) depends on the particular evaluation context at hand. Each has its advantages and disadvantages. Social experiments are considered to be the most convincing method, but may be expensive and not feasible due to administrative and ethical reasons. Regression discontinuity designs are only applicable to policies that are determined by specific cut-offs in some variable (e.g. age) and if manipulation around the cut-off can be excluded. Evaluation based on difference-in-differences requires observing the outcomes prior to and after the policy change and the time trend being the same for individuals exposed and not exposed to the policy. The usefulness of instrumental variables crucially hinges on their random assignment and the exclusion of a direct effect on the outcome (other than through the policy). Finally, the selection on observables assumption generally demands a very rich set of observed characteristics, which implies high requirements concerning data collection. Even though there is no "magic bullet" method that works in all empirical contexts, the discussed approaches have – depending on the nature of the available data – been fruitfully applied in many different fields of policy analysis.

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Natalija Bogdanov

University of Belgrade, Serbia Faculty of Agriculture Institute of Agroeconomy Department of Agricultural Economics and Markets



Dr. Natalija Bogdanov is a full professor at the Department of Agricultural Economics of Faculty of Agriculture University of Belgrade, where she works since 1986. Her teaching includes postgraduate and undergraduate courses on Rural Development and Rural Policy, Economics of Agriculture, Rural Economy and Strategic Planning of Rural Development.

The research interests of Prof. Bogdanov focus on macro-economic analysis related to agriculture and rural areas; agricultural and rural policy developments; socioeconomic analysis of rural population within the local system framework; community and regional analysis; and rural poverty. Her experiences include conceptualizing, designing, and carrying out research projects, data analysis and policy report writing, design and delivery of teaching and training modules.

Prof. Bogdanov has been involved as a researcher, rural development expert and project coordinator in many national and international research and development projects related to agricultural and rural development policy analysis funded by the international, regional and national institutions (EC, UNDP, UNICEF, FAO, RRD SWG, World Bank).

Since 2006 she coordinates a team of 25 researchers of five research and academic institutions on Basic Research Program projects funded by the Ministry of Education, Science and Technological Development of Republic of Serbia. Prof. Bogdanov serves as a member of various national councils and committees on science, education and agriculture, including the Research Council for Economics Humanities and Social sciences.

Prof. Bogdanov has published over hundred articles in academic journals, book chapters, international conference proceedings and textbooks. She has given plenary, key note and invited lectures at a number of faculties in the Balkan region, supervised five MSc thesis (co-supervised three) and one PhD thesis (co-supervised five).

The out-migration from rural areas and structural changes in agriculture – the case of Serbia

Summary

The continued growth of international migration and the growth of remittance flows between countries have resulted in vast literature on concepts and models explaining the migration within different theories, hypotheses and research frame.

The majority of economic literature on rural migration up to 1980s has followed the neoclassical approach (Lewis, 1954; Todaro, 1969) hypothesis that rural migrants react mainly to economic incentives, i.e. wage disparities between origin and destination areas. Over the coming decades several theoretical viewpoints on migration have developed, bringing the new perspective on key behaviour factors related to rural migration (New Economics of Labour Migration theory - Stark, 1981), on the influence of social networks on decision to migrate (Social Network theory -Hugo, 1981; Massey 1990), and that explain the initiation and perpetuation of migration (Migration System Theory – Kritz, Zlotnik, 1992). Many authors argue that the lack of coherent theoretical framework of migration have led to widespread controversy on the nature, causes, and consequences of migration (Haas, H. 2007), as well as the to the different and sometimes conflicting findings (Massey et al 1993, Salt 1987, Mabogunje, A.L. 1970; R. Chen et al., 2014).

The key causes and consequences of rural migration for the sustainability of rural communities and rural households' livelihoods are studied by different disciplines, from specific angles of their own. The same can be said for the rural migration and outmigration. The overall impacts of rural migrations are often perceived as negative for migrant-sending area due to disrupting effect on the local labour market and overall economy. In contrast, some believe that out migrations contribute to migrant-sending areas by maintained economic and social links among emigrants and their families, and emphasize the benefits of the remittances, generation and diffusion of new skills and innovative ideas in countries of origin (IFAD, 2007). Although the migration may affect rural areas differently, all of the research on this topic emphasizes that they lead to the structural changes in agriculture sector (i.e. the changes in the economic and physical distribution of farm size, changes in in the production structure and farming operations, improvements in technology and financial and institutional arrangements, etc.) (Boehlje, 1999).

The purpose of this research is to provide insights to better understanding the impact of out migration from rural Serbia, and contribute to designing conceptual frame for further study on impact of outmigration on structural change in agriculture.

The emigration of Serbian rural population is rooted in labour migration policies of the Western European countries and special bilateral agreements with southern and southeastern European states of mid 1960s. The intense emigration started within first wave of migrants to Western Europe, and during 1960-70s, Serbia was one of the most important migrant sending countries, mostly from its rural areas (over 70% of emigrants in period 1970-1990s were rural workers). The period after the dissolution of the SFRY (during 1990s) was marked by the largest wave of immigration to (refugees and IDPs from ex YU republics), but also by emigration from Serbia. The various "push" factors encouraged emigration and the formation of Serbian diaspora (Bobić, Babović, 2013): (1) political (disagreement with the prevailing ideology, fear of military recruitment), (2) economic (unemployment, poverty) and (3) humanitarian (refugees and asylum seekers). The research issue on rural migration in Serbia has focused from rural-urban perspective, but the issue of out-migration of rural people and its effects on agriculture have been untouched.

This research is organized as follows: 1) the first step was to determine the regions with most prominent trends of out-migration based on secondary data from various official sources, 2) than, we identified characteristics of local migration system of relevance for agriculture, by conducting face to face semi-structured interviews with representatives of relevant groups, and 3) we generate and summarize the findings into thematic frame developed based on literature review.

The literature review and secondary data were used in the selection the territorial unit of analysis. Data on recent migration trends indicate that there are significant regional differences in migration patterns and in the profile of migrant-sending households, but also that the data on emigration are insufficiently reliable due to under-registration and under-coverage (even more less reliable and less accessible are the data collected by the statistics of migrant receiving countries).

A multiple case study approach was used to study local environment in selected regions.

Several important findings emerged from this analysis that should stimulate further research in this intriguing field, but they also provide insights into possible research designs, methods of conducting the research and interpreting the results:

Territorial aggregation - The impact of out migration on agriculture sector in Serbia is mixed, highly contextual and dependant on multi–aspects of the migration process, which suggests that to assess correctly the impact of out migration on the agricultural restructuring, national interregional comparisons are of less importance. There is a need to reflect local context, so the administrative units belonging to same migration system (district, municipality/neighbouring municipalities) should be analysed.

Time perspective – the research on this issue requires long term perspective (longitudinal, panel data is needed); instead, in depth survey research could be used, with retrospective questions related to institutional frame. However, to study consequences of out-migration (on structural changes in agriculture) the situation at the time of the survey should be in focus.

Unit of observation – depends on data available on appropriate comparison groups; ideally is to compare the data on both migrants (at destination country) and non-migrants; if survey conducted at country of origin, there is a need to define a proxy respondent for migrant. The cross country comparative analysis is possible with ex-Yu countries, to look for example on whether national specific institutional arrangements influence rural migrants' behaviour (this kind of analysis suggested also by R. Chen et al 2014).

What factors to consider and what data to collect at individual/household level – Many of selected factors referenced in the literature and have been used in studies in different locations and in different contexts. Out of those, we detected some others for which case studies confirmed to have effects on Serbian farms with migrants, such as: socio-cultural factors (household decision-making about collective and shared resources of family members; social norms and expectations about intergenerational transfer of family assets; culture and tradition of migration among of specific ethnic groups (Roma, Vlachs..) Some other examples from the literature (the effects of climate change, feminization of agriculture, etc.) have not been identified as the factors of importance in Serbia.

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Cooperatives as Networks and Coopetitive Networks

Summary

Key Concepts

A complete title of this paper should include some key economics terms such as, efficiency, economies of size, market power, institutions, governance, networks, cooperatives, coopetition. However, I argue that the contribution of this piece is the amalgam of two key concepts: cooperatives and networks. The internal structure of a cooperative can be viewed as a network of its members and management. A vertical and horizontal organization of cooperatives together with other entities, such as private firms (investor owned firms: IOFs), professional organizations, and government bodies, organized as a network, could promote efficiency, countervail market power, and implement policies efficiently. Hence, the analysis is both positive and normative. Viewing the cooperative as a network improves our positivist analysis of the nature of the cooperative firm. A vertical and horizontal organization of cooperatives and other entities is proposed as an alternative design of an agri-food system for farm, industrial, and eventually, an instrument for rural development.

The Problem

We take a more macro and industrial organization approach by looking at agri-food systems as wholes, focusing on their organizational characteristics. Agri-food systems are complex entities, sometimes organised top-down with various degrees of forward vertical integration, i.e. systems of agribusiness owned and operated by large processors, or input providers, either through a system of vertical ownership, or contracts, or as cooperative forms. Other agri-food systems are built bottom-up, i.e. owned by farmers, often integrated downstream into processing, marketing and distribution, or upstream into supplies of farm inputs, biotechnology and services. There exist many variations of these two models, neither of which are as pure as they are sketched above. Most common we encounter agri-food systems, very loosely organised, consisting of a wide range of firms of different sizes, organizational structures, and ownership, covering the production and distribution of food from the lab to the final consumer.

The problem is that different systems perform differently in terms of exploiting the comparative advantages of an industry, or community, or region, or a country, or even a group of countries, such as for example the EU, or – why not the Balkans, or the countries of the Mediterranean basin, or those of East Africa, ASEAN, etc. These agri-food systems manage in most cases to produce and distribute food to their populations, and often even export food to other regions and countries. However, with varying degrees of success - measured as efficiency, growth, innovation, or value creation and value distribution, or even policy implementation.

The hypothesis put forward in this conceptual piece, is that the performance of the various agrifood systems depends mainly on the organization of the agri-food system in its entirety.

The elements of the conceptual model

The following are the key elements of the model leading to this hypothesis.

a. Economies of size, and hence optimum firm size, varies in the various nodes along the agrifood chain. For example, the optimum size in terms of volume, for a sugar refinery is not the same as sugar beet farm. Hence, and optimum system should consist of a refinery which handles the sugar beets of a number of farms (Allen, Lueck, The Nature of the farm). Similarly we can argue that the same holds in various degrees for a dairy, slaughter house, canning factory, etc. With the same logic, the optimal size of a marketing or research organization could be as large as to cover an entire region, country, or even group of countries.

b. Market power is primarily associated with size, although very often, the monopolistic or oligopolistic position of a firm in the market does not only depend on size efficiency. Monopolistic structures often result from legal, regulatory, or systems of property rights and path dependencies. In any of the ways they may accrue market power, such firms manage to extract rents from the upstream or downstream firms they deal with, or often from both. Farms, being at the weak end of the agri-food chain, are notoriously being exploited by upstream or downstream firms with market power. It is therefore argued that when farmers own the upstream or downstream firm can use the market power to their advantage and extract rents to their own benefit. Hence, ownership and control of the agri-food system by farmers, alters the distribution of power and the distribution of value (rents) along the value chain. This, therefore, enhances or hampers incentives to farmers, and to other firms in the value chain.

c. Governance refers to the variety of ways, individuals or firms manage their transactions. Transaction cost theory defines the continuum of governance structures as one that ranges between the two extrema: markets and hierarchies (Williamson, 1991). Anything in between is referred to as "hybrid". These three forms of governance have different capacities in adaptation

and coordination. In the transaction cost framework, hybrids are not unique organizational forms, but rather a diverse collection of relationships, and are created because they are fit to adapt to changes in the institutional environment (Williamson, 1991).

d. Networks emerge as a form of governance that has advantages over markets and hierarchies in that they are able to simultaneously adapt, coordinate and safeguard exchanges (Jones, et al, 1997). In the core foundation and operationalization of social networks lies the concept of embeddedness (Granovetter, 1985; Granovetter, 1982). Embeddedness refers to the degree of social location of network participants and is measured in terms of "depth" or the "degree of connectivity" associated with established relationships among the network participants (Thompson, 2005). Most important to the functioning of networks is "structural embeddedness, " which concerns the material quality and structure among actors and how these actors relate to third parties (Granovetter, 1992). Structural embeddedness promotes economies of time, integrative agreements, Pareto improvements in allocative efficiency, and complex adaptation (Uzzi, 1997).

e. Cooperative is a collective firm that distinguishes itself from the investor owned firm (IOF) in two distinct attributes, first that the distribution of surplus is according to patronage (not share in capital), while each cooperative member has one vote regardless of capital share or patronage. There are of course, several more distinguishing features of cooperatives that vary between cooperatives and between regulatory and legal systems among countries. As a firm governance structure, however, the cooperative differs from the IOF primarily in terms of the distribution of surplus and voting power.

f. Coopetition, is business strategy that combines competition and cooperation. Brandenburger and Nalebuff (2011) who coined the term put it nicely:, "you can compete without having to kill the opposition. If fighting to the death destroys the pie, there'll be nothing left to capture - that's lose-lose. By the same token, you can cooperate without having to ignore your self-interest. After all, it isn't smart to create a pie you can't capture - that's lose-win".

The argument

a. Economies of size can be achieved by cooperation at the stages of the agri-food system where they are needed. Of course, farmer-owned cooperatives are not the only firm governance structure that can capture economies of size, other forms, such as IOFs can do the same. The advantage of farmer-owned cooperatives is that they channel the rents from market power back to the farmers, and that they may achieve further benefits through their strong structural embeddedness.

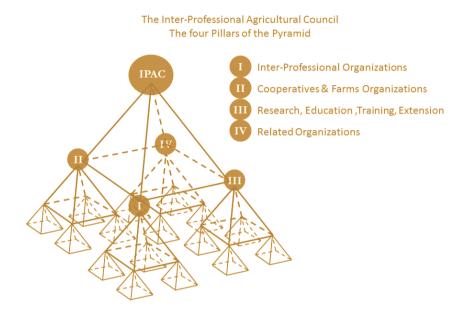
b. The Cooperative as network. In this analysis we argue that the advantages of the cooperative viz-a-viz the IOF are better understood if the cooperative is viewed as a network of its members. The structural embeddedness of a cooperative depends on the connectedness – which often depends on their homogeneity - among its members and the way the members, and the executive body of the cooperative, are connected.

c. Coopetitive networks are value-creating. When the majority of actors of the agri-food system, whether cooperatives, IOFs, or other organizations (private or government) are organized within a cooperative network, they generate Pareto improvements and allocative efficiencies. A coopetitive network is a network that nurtures and promotes cooperation without necessarily silencing competition. This is not easy to achieve but can be nurtured and promoted by targeted policy, education, and social capital.

The Pyramid: Inter-Professional Agricultural Council (IPAC)

The proposed structure is a four-edged pyramid founded on four pillars:

- I. The inter-professional organizations
- II. Cooperatives and Farms organizations
- III. Research, Education, Training and Extension
- IV. Related Organizations



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Commercialisation, Diversification or Subsistence? Pathways for Smallholder Farms in South-Eastern Europe

Summary

Smallholder family farming is a key feature of Southeastern European rural areas. The average farm sizes in the region are comparable only to the smallest in the EU (Volk et al., 2014). Small farms sometimes exist side by side with (few) large agricultural enterprises in a so-called dualistic farm structure, found for example in Montenegro, Romania or Moldova. Agricultural production - dominated by the private sector - still contributes with comparatively high and rather stagnant shares to the national GDPs, and even more so to employment. While on the one hand, family farming has many socially desirable functions and may be seen as the 'bloodstream of agriculture' (Davidova and Thomson, 2013), on the other hand, it faces multiple challenges. In Southeastern Europe, the widespread small-scale structures are often linked with comparatively low productivity levels, vulnerability to poverty, subsistence orientation, and a number of typical market failures. Lacking competitiveness, poor access to markets and modern food chains, as well as land tenure issues, lack of information, technologies or skills hinder the development of a vital, viable and business-oriented family farm sector.

This contribution will shed light on the possible pathways or courses of action smallholder farms could take in such difficult environments. The presentation discusses recent trends in the development of farm structures and gives answers to questions surrounding the driving factors behind the directions smallholder farms take as well as the implications these might have for agricultural and rural development. It mainly draws from a paper on the structural transformation of Moldovan smallholder agriculture, which was prepared within the framework of the World Bank's recent Poverty Assessment of the country (Möllers et al. 2016). The analysis is based on the national Household Budget Survey (HBS) panel data from 2007-2013.

In Moldova, one of the poorest countries neighbouring the EU, agriculture is a very important sector. While agriculture represents 14 percent of the country's GDP in 2014, the sector's productivity remains low. Missing investments resulting in low-yield technologies and low use of fertilisers and pesticides are among the main causes for this. Land privatisation was expected to result in a quickly emerging agricultural sector dominated by family farms. Yet, reality brought about a rather unviable, fragmented dual land structure. Nowadays, the large Moldovan smallholder sector makes up about 95 percent of all farms. It coexists with a small number of large corporate farms. Like in other countries in the region, smallholder farms are not only particularly vulnerable to poverty, but face the challenge of integrating into the EU and global markets. Progress in agricultural and rural development is thus urgently needed.

Our results show that structural change and land consolidation is extremely slow in Moldova: for smallholder farms there is even a trend towards shrinking farm sizes, which decreased on average from 1.60 ha in 2007 to 1.35 ha in 2013. A strong move towards structural change would require a significant number of farms to give up their farm completely or at least a part of their land. Yet, farm exits are almost entirely unobserved, and land sales are very limited. This implies that possibilities for farms to grow are severely constrained. Indeed, our results underline that farm growth among smallholder farms is an exception: the large majority of farms did not change their size category over the observed period. In fact, the analysis of transitions within the panel households of the HBS, points to a tendency to withdraw from (in particular commercial) farming activities. The vision of smallholder farms developing into a successful class of middle-sized family farms has thus not yet begun to materialise.

Although farming provides an important source of income to smallholder households, its share is declining over time: despite almost all rural households being involved in farming, it contributes to less than 20 percent of total household income. Income diversification is the rule: on average, farm households benefit from two to three income sources. It further seems that small farms in Moldova tend not to make full use of their land and production potential: a considerable portion of total farmland, on average almost 20 percent, is left fallow. Land abandonment is likely to be the result of restitution, but old-aged farm operators and outmigration further contribute to the tendency to leave land unused. In line with this, our results highlight the fact that semi-subsistence farming is still a core component of the rural livelihood strategies in Moldova, and it is likely to persist in the medium and longer term. Subsistence farms make up around three-quarters of all family farms in the sample and ageing seems to be an important driver of this subsistence orientation.

Although, compared to subsistence farms, more market-oriented farm households report 15-20 percent higher farm and total household incomes, smallholder farms show little interest in commercialisation and market integration. Instead, they appear to be returning to subsistence farming. There is only a minor segment of smallholders (those with slightly bigger farms of over two hectares) who increased their share of marketed production in recent times. Yet; even for those who are utterly willing to commercialise, Moldova's gradual adoption of EU regulations on

food safety, traceability, etc. will pose a major challenge and provides perhaps one reason as to why the propensity to fall back into subsistence farming is comparatively high.

Although poverty among smallholder farms has been declining during the last years in Moldova, it still represents a significant challenge. Our analysis shows that neither subsistence farming nor more commercially oriented farm strategies effectively protect smallholders from poverty. We explore counterfactual scenarios of four different livelihood strategies. Derived from a Propensity Score Matching analysis, we compare counterfactual poverty headcounts, which describe how the poverty situation would have been affected if households had followed certain earning strategies, namely a farm-centred, a commercially oriented, a non-farm oriented or one that relies on migration and remittances. If livelihoods are farm-centred, meaning that farming is the main income source of the household, this contributes to higher poverty levels in a household. This effect is also observed for commercially-oriented full-time farms, but to a lower degree. Diversification into the non-farm sector, however, has a low, but positive impact on poverty levels. Migrant remittances lift the highest number of households out of poverty.

The presentation will conclude with some policy-relevant implications. Among others, it seems clear that the non-farm sectors and general rural development play a decisive role for the future of smallholder farms. Agricultural policies aiming at a more competitive family farming sector currently face a situation in which farmers will probably react with great caution, or not at all, to market-based policy signals, as their interest lies mainly in subsistence farming.

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Food system sustainability: the complex challenge of food waste

Summary

In many countries rural policy shifted from strategic objectives traditionally looking at the long term development of the agricultural sector to approaches increasingly focusing their attention on the role agricultural and rural areas play for the satisfaction of a variety of societal needs. Farmers and rural entrepreneurs are seen as providers of services (i.e. energetic; environmental; touristic) and are engaged in the preservation and valorization of public goods (i.e. forests, waterways, land management, heritage sites).

Despite this transition from a sectorial to a territorial perspective, agriculture and food maintain a central role and rural areas remain the place where food is produced exploiting available endogenous resources.

Moreover in the recent decades the sustainability of food systems has been under pressure due to a number of local and global deeply interrelated driving forces constantly evolving and raising new challenges (FAO 2012):

Agrarian structures are changing towards an increased agro-industialization. Factors as improved technologies for food production and processing, more efficient distribution chains, more effective knowledge transfer, (foreign) capital investments contributed to a growth and a consolidation of agro-industrial processes that create opportunities for producing and exporting higher value crops. At the same time several questions remain regarding the role of small farmers in industrialization processes, the effects on nutrition and environment (da Silva A. C., 2009; Reardon T., Barrett C. B., 2000; Paarlberg R. L., 2013).

Food demand is increasing and food consumption is changing. In many rich countries, obesity is now a public concern just as hunger. Global meat production and consumption have increased rapidly, with harmful effects on the environment, public health and economic systems. Large part of this growth of meat production and consumption is led by newly industrialized countries with China counting for over the 30% (OCED/FAO, 2015). At the same time many countries are calling for lower meat consumption and implements dedicated awareness campaigns and policy measures (Lang T., Heasman, M., 2004; Paarlberg R., 2013).

International agri-food trade has been characterized by a significant expansion in the past decades with relatively important structural changes in favor of developing countries that in some cases became important players. Global food commodities trade counts for more than US\$520 billion per year and would be enough to feed approximately two billion people (Ghosh B. N., Guven H. M., 2006; MacDonald G. K. et al., 2015).

The energy intensity of modern food systems represents a crucial challenge in a scenario of decreasing oil resources, growing population, increasingly industrialized agriculture, uncertain biofuels policies (Pimentel D., Pimentel M.H., 2008; Cuéllar A.D.; Webber M.E., 2010; Vittuari M. et al. 2016).

Food prices are increasingly unstable. The international price shock of 2008 raised significant concerns on food prices increase and volatility and on the related effects on food security. In particular food price volatility can be taken as a measure of risk and uncertainty and therefore as a treat to food security (OCED/FAO, 2015; Kalkuhl M., 2016).



The intensity of the competition on natural resources is growing generating an increasing burden on the environment, through impacts related to resource extraction, use and disposal (Garrett N., Piccinni A., 2012; Hartard S., Liebert W., 2015).

The impact of climate change in agriculture is growing negatively affecting both crop and livestock systems in most regions. At the same time the agricultural sector is a major emitter of greenhouse gas emission: 17% directly through agricultural activities and an additional 7% to 14% through land use changes (OCED, 2015).

Many regions are experiencing increasing frequency and intensity of natural and man-made disasters. Impacts present human and economic as well as environmental dimensions. At the same time human practices on agricultural systems and forestry can exacerbate the intensity of negative impacts (IPCC, 2014).

In such a framework, on September 25th 2015, countries adopted a set new goals to renew the fight against poverty and hunger. The number 12 of these Sustainable Development Goals aims at "Ensuring sustainable consumption and production patterns" and suggest an additional focus (SD Goal 12.3) to reinforce the fight against food waste "By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses" (UN, 2015)

Food waste has a number of interrelated implications in terms of food security, human health, economic development and environmental impact. From a life-cycle perspective, food waste represents, beyond a missed opportunity to feed the growing world population, a huge pressure on the natural capital both in terms of natural resources consumption (e.g. energy, water, fish stocks, agricultural land), environmental pollution (water, air, soil) and biodiversity loss (Scherhaufer S., et al., 2015). What exacerbates the concern is the staggering amount of food waste currently generated at global (Gustavsson J. et al, 2011) and EU level (Stenmark A. et al, 2016) alongside the projections on world population growth, change of dietary habits and reduction in food production capacity due to the effects of climate change, soil erosion and of the growing demand of land for energy purpose (FAO, 2013).

Despite the growing attention from the academic world, civil society and policy makers, the debate on food waste is still affected by a lack of a consensus over its definition and scope boundaries (Östergren K., et al., 2014) and drivers that lead to its generation (Canali M, et al., 2014) and by the lack of common quantification and reporting methods along the food supply chain (Tostivint C. et al., 2016). Moreover, as policies and policy proposals are emerging, there is a greater need to establish criteria to be used for the evaluation of their impact and effectiveness (Burgos S. et al., 2016). Although efforts are made on European and Member State (MS) level to develop dedicated food waste policy, they could benefit from a sound knowledge base and an integrated, comprehensive approach (Vittuari M. et al., 2015).

Starting from the role of food in rural development processes this work aims to discuss the sustainability of food production and consumption focusing on the multiple and interrelated implications of food waste. How can we define food waste? Does food waste harm natural resources? Is the reduction of food loss and waste an exaggerated agitation (Koester U., 2015) or does it represent a real treat to food system sustainability? What drivers are leading to the generation of food waste in the different stages of the food supply chain? To what extent food waste represents a social problem? What evidences on consumer behavior? What is the role of policy in addressing food waste prevention and reduction? What actions could be undertaken to improve and coordinate the policy effort to address food waste?

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Designing transdisciplinary European research projects in support of a sustainable development of agriculture and rural areas

Summary

In the face of the environmental impact of intensive farming systems, turbulent global markets, climate change, and increasing societal demands for the provision of public goods, it is becoming increasingly clear that a systemic change in agricultural and food systems is needed. A closely related challenge is the concentration of production in some regions or some farms which is directly linked to the marginalisation of others. The related policy question concerns the future of the very large number of small farms especially in Eastern Europe.

The starting point for my contribution is that we – that is research, higher education, policy, advisory services, agribusiness, farmers and consumers – need to jointly support this systemic

change and contribute to a more sustainable development of agriculture and rural areas in Europe. Against this background, I ask how transdisciplinary research that supports the related decision-making and actions looks like.

In my discussion I use three main inputs (see references):



First, the European Commission's recently published strategic approach to EU agricultural research and innovation.

Second, the European Innovation Partnership for Agricultural Productivity and Sustainability (EIP-AGRI).

Third, the results of the European research programme 'Rethinking the links between farm modernization, rural development and resilience in a world of increasing demands and finite resources (RETHINK)' which explored how policy, research and practice can address challenges and what more integrated, sustainable and resilient farms, food systems and rural areas might look like.

The contribution is structured around the following questions: How can agricultural research and innovation help to tackle the challenges facing agriculture, rural communities and our society at large? What are the priority areas that need to be addressed? How can we promote trajectories that are more resilient, balanced, equitable and inclusive? How can European researchers contribute more effectively to such strategies, working across sectoral, disciplinary and cultural boundaries? What are the most important design and process principles for transdisciplinary European research projects and how to build multi-actor research and innovation actions?

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Research areas

Agricultural and rural development economics and policies.



Selected relevant publications

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Research areas

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Selected relevant publications

- 1. Vaško, Ž., Ostojić, A., Rokvić, G., Drinić, Lj., Mrdalj, V., Figurek, A. and Brković, D., 2016. Aariculture and Rural Development in the Republic of Srpska until 2020. Banja Luka: University of Bania Luka, Faculty of Agriculture, ISBN 978-99938-93-38-7.
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Research areas

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- 1. Mirjanić, S. and Rokvic, G., 2012. Evolution of Rural Development Policy in Bosnia and Herzegovina. In: D. Cvijanović, J. Subić and A.J. Vasilie, eds. 2012. Sustainable Agriculture and Rural Development in terms of the Republic of Serbia Strategic Goals Realization within the Danube Region - Preservation of Rural Values, Tara, Serbia, 6-8 December 2012, Belgrade, Serbia; Institute of Agricultural Economics. pp.889–906. ISBN 978-86-6269-018-0.
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Selected relevant publications

- 1. Vaško, Ž., Ostojić, A., Rokvić, G., Drinić, Lj., Mrdalj, V., Figurek, A. and Brković, D., 2016. *Agriculture and Rural Development in the Republic of Srpska until 2020.* Banja Luka: University of Banja Luka, Faculty of Agriculture. ISBN 978-99938-93-38-7.
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Research areas

Human geography (social-geographic research in rural areas); rural and urban geography; rural planning and rural development; revitalization of rural areas.

- 1. Mandić, M., 2015. *Geospatial Conseqences of the Demographic Development of the Republic of Srpska in the Context of Changes in the Settlement System*. Banja Luka: Academy of Sciences and Arts Republic of Srpska. pp. 53–70.
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Research areas

Rural development; farm management; agricultural policy; extension services.

Selected relevant publications

- 1. Bajramović, S., Ognjenović, D. and Butković, J., 2016. Bosnia and Herzegovina: Agricultural Policy Brief. In: T. Volk, E. Erjavec, P. Ciaian and S. Gomez-y-Paloma, eds. 2016. *Analysis of the Agricultural and Rural Development Policies of the Western Balkan Countries*. Luxembourg: Joint Research Centre, European Commission. Ch. 3.
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Public policy management (rural development and area based policies); agribusiness; value chains management; food quality systems development and management.

- Kotevska, A., Bogdanov, N., Nikolić, A., Dimitrievski, D., Martinovska Stojcheska, A., Tuna, E., Milić, T., Simonovska, A., Papić, R., Petrović, L., Uzunović, M., Bećirović, E., Andjelković, B., Gjoshevski, D. and Georgiev, N., 2015. In: A. Kotevska and A. Martinovska Stojcheska, eds. *The Impact of Socio-economic Structure of Rural Population on Success of Rural Development Policy: Macedonia, Serbia and Bosnia and Herzegovina. Skopje: Association of Agricultural Economists of Republic of Macedonia.* Chs. 1, 2, 4, 6, 8 and 10. ISBN: 978-9989-2358-6-3.
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Research areas

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Selected relevant publications

- 1. Bećirović, E., Bajramović, S., Ognjenović, D., Makaš, M. and Kulelija, B., 2016. Economic Efficiency of the Green Houses Vegetable Production in the Conditions of Continental and Mediterranean Climate in Bosnia and Herzegovina. *Works of the faculty of Agricultural and Food Sciences*, LXI(66/1), pp.420–424.
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- Makaš, M., Nikolić, A., Uzunović, M., Krilić, A., Bećirović, E. and Falan, V., 2016. Input/ Output Price Parity of Maize and Wheat in Bosnia and Herzegovina. Works of the Faculty of Agricultural and Food Sciences, LXI(66/1), pp.440–443.
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Selected relevant publications

- 1. Anastasova-Chopeva, M. and Nikolov, D., 2009. Assessment of the Demographic Effect on Future Rural Development in Bulgaria. *European Rural Development Network Studies*, 6, pp. 233–241. ISBN 978-83-7658-096-8.
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- 1. Bachev, H., 2016. Defining and Assessing the Governance of Agrarian Sustainability. *Journal of Advanced Research in Law and Economics*, VII(4/18), pp.797–816.
- 2. Bachev, H., 2014. Environmental Management in Agriculture, Mechanisms, Forms and Efficiency. Saarbrücken, Germany: LAP LAMBERT Academic Publishing.
- 3. Bachev, H., 2013. Risk Management in Agri-food Sector. *Contemporary Economics*, 7(1), pp.45–62.



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Selected relevant publications

- 1. Kaneva, K., 2016. Efficiency and Productivity of Bulgarian Farms. *Bulgarian Journal of Agricultural Sciences*, 22(2), pp.176–181.
- 2. Kaneva, K., 2015. Institutional Changes and Structural Reform in Agricultural Holdings. Sofia: Avangard Prima.
- 3. Kaneva, K., 2014. Challenges to agricultural holdings: CAP 2014-2020. *Journal of Agricultural Economics and Management*, 3, pp.17–27.

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Research areas

Agricultural policy and market analysis; sustainability and impact assessments.

Selected relevant publications

- 1. Ivanov, B., 2015. Expectations for Bulgarian Agricultural Development from Implementation of CAP 2020. Proceedings of conference: *Agriculture Economics to Support Farming*. pp. 135–146.
- 2. Sokolova, E., Kirovsky, P. and Ivanov, B., 2015. The Role of EU Direct Payments for Production Decision-making in Bulgarian Agriculture. *Agriculture and Forestry*, 61(4), pp.145–152.
- 3. Ivanov, B., Malamova, N. and Sokolova, E., 2015. The New Direct Payments Paradigm in the CAP 2014-2020: Economic Effects of "Green" and Redistributive Payments on Bulgarian Agriculture". In: EAAE, European Association of Agricultural Economists, *147th EAAE Seminar: CAP Impact on Economic Growth and Sustainability of Agriculture and Rural Areas*. Sofia, Bulgaria: 7-8 October 2015. Sofia: EAAE.





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Research areas

Dairy cattle; rural development program.

Selected relevant publications

- 1. Stoychev, V., 2014. A Study of Factors Influencing Number of Dairy Cows in Bulgaria. *Agricultural Economics and Management Journal*, 4, pp.21–30.
- Stoychev, V. and Ivanov, B., 2015. A Study of Bulgarian Dairy Farms Profitability before and after the Milk Quotas. In: Agrosym 2015, *Sixth International Scientific Agricultural Symposium*, Book of Proceedings, pp. 1862–1867. Jahorina, Bosnia and Herzegovina: 15-18 October 2015.
- 3. Stoychev, V., 2015. Analysis of implementation of RDP 2007-2013. In: Evaluation of Consumption Pattern, Incomes in Agriculture and Implementation of RDP 2007-2013, Book of Proceedings , pp. 41–60. Sofia, Bulgaria: IAE.

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Research areas

Agricultural and Rural Development; Analysis of Impact of Common Agricultural Policy on development of viticulture; Environmental policy, Analyzing and assessing the system of governance and the level of agrarian sustainability.

- 1. Toteva, D. and Atasoy, E., 2014. Eco Governance in Viticulture in Bulgaria. *Oxidation Communications*, 37(4), pp.1083-1089.
- 2. Toteva, D., 2011. Impact of the Common Agricultural Policy on the development of viticulture in Bulgaria. *Uludağ Üniversitesi Ziraat Fakültesi Dergisi*, 25(2), pp.109-120.
- 3. Toteva, D., 2012. Biological Viticulture in Bulgaria Possibilities for Development. Dimensions of Ecological Culture, Troyan, pp. 203-213.





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Research areas

Rural development; LEADER programme; regional development; organic agriculture; small business and rural diversification; local community development; producer organization.

Selected relevant publications

- 1. Tolić, S. and Markotić Krstinić, B., 2015. Implementation of LEADER Measure of Rural Development in Croatia. *Journal of Hygienic Engineering and Design*, 10, pp.41–48.
- 2. Tolić, S. and Maurović Košćak L., 2015. Development Strategy of City of Valpovo 2015-2020. Valpovo, Croatia: City of Valpovo.
- 3. Tolić, S., Maurović Koišćak L., Vukojević, L. and Kovač, T., 2013. Manual. In: S. Tolic, ed. 2013. *Rural Development and the Rural Economy*. Osijek, Croatia: Faculty of Agriculture in Osijek.

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Research areas

Macroeconomics; agriculture and rural development; sector analysis.

Selected relevant publications

- 1. Zrakić, M., Salputra, G. and Levak, V., 2015. Potential Impact of EU Common Agriculture Policy on Croatian Dairy Sector Modelling Results. *Mljekarstvo*, 65(3), pp.195–202.
- 2. Prišenk, J., Sabljić, D., Zrakić, M. and Turk, J., 2015. Econometric Modelling Approaches in Studies of the EU Dairy Sector. *Indian Journal of Animal Research*, 49(5), pp.717–724.
- 3. Prišenk, J., Grgić, I., Zrakić, M., Turk, J. and Pažek, K., 2016. How to Identify the Value-based Food Chains: A Slovenian Case Study. *Meso : Prvi Hrvatski Časopis o Mesu*, 18(5), pp.445–449.

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Research areas

Rural development; cluster development; regional development, small business and rural diversification; producer organization; organic agriculture.



- 1. Tolić, S. and Maurović Košćak, L., 2015. Beekeeping Development Strategy of Local Action Group Istočna Istra 2015-2020. Labin, Croatia: LAG Istočna Istra.
- Maurović Košćak, L., Tolić, S and Jokić, M., 2013. Role of Young People in Sustainable Rural Development. In: Faculty of Natural Sciences of Shkodra University and Balkan Environmental Association, 2nd International Conference Research and Education in Natural Sciences. Shkoder, Albania: 1, 5-16 November 2013. Shkoder: Faculty of Natural Sciences of Shkodra University and Balkan Environmental Association, Proceedings 2, pp.123-133.
- 3. Rotim, S., Zelić, A., Djurica, D., 2014. Eco Educo Park: Manual for Auxiliary Workers in Organic Horticulture. In: L. Maurović Košćak, ed. 2014. *Eco Educo Park Social Inclusion and Employment Model*. Osijek, Croatia: Faculty of Agriculture in Osijek.

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Research areas

Economics of rural areas; common agriculture policy; financial schemes dedicated to farmers; basic economics and policy impact analysis; farm business management; project cycle management (PCM).

Selected relevant publications

- 1. Gjokaj, E., Gjonbalaj, M., Leeds, S. and Halimi, K., Agricultural Finance in Kosovo. *International Journal of Economic Perspectives*, 11(2), ISSN: 1307-1637.
- 2. Haas, R., Canavari, M., Imami, D., Gjonbalaj, M., Gjokaj, E., and Zvyagintsev, D., 2016. Attitudes and Preferences of Kosovar Consumer Segments Toward Quality Attributes of Milk and Dairy Products. *Journal of International Food & Agribusiness Marketing*, 4, pp.407–426.
- Gjokaj, E. and Ortner, K., 2014. Lessons from the mid-term evaluation of the ARDP Kosovo. In: EAAE (European Association of Agricultural Economists), 142nd EAAE Seminar Growing Success? Agriculture and rural development in an Enlarged EU. Budapest, Hungary: 29-30 May 2014. Econ paper, 2014. http://ageconsearch.umn.edu/bitstream/169084/2/paper_Gjokaj_ Ortner.pdf.

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Research areas

Agriculture economics; agricultural policy; farm management: farm performance and planning; cost-benefit analysis; ecosystem services and agriculture.

- 1. Iliriana, M., Ivanova, N., Zvyagintsev, D., Gjokaj, E. and Gjonbalaj, M., 2016. Total Factor Productivity Analysis in Kosovo Agriculture. In: *IAMO, Leibniz Institute of Agricultural Development in Transition Economies, IAMO Forum – Rural Labor in Transition: Structural Change, Migration and Governance.* Halle (Saale) Germany: 22-24 June 2016, IAMO.
- 2. Iliriana, M., Hixha, B. and Gjokaj, E., 2016. Kosovo: Agricultural Policy Brief. In: T. Volk, E. Erjavec, P. Ciaian and S. Gomez-y-Paloma, eds. 2016. *Analysis of the Agricultural and Rural Development Policies of the Western Balkan Countries*. Luxembourg: Joint Research Centre, European Commission. Ch. 4.
- 3. Iliriana, M. and Hoxha, H., 2014. Agriculture and Agricultural Policy in Kosovo. In: T. Volk, E. Erjavec and K. Mortensen, eds. *Agricultural Policy and European Integration in Southeastern Europe*. Budapest: Food and Agriculture Organization of the United Nations. Ch. B.IV.





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Research areas

Environmental engineering; agriculture; waste management; project management.

Selected relevant publications

- 1. Kerolli-Mustafa, M. and Gjokaj, E., 2016. Kosovo: Agricultural Policy Development and Assessment. SWG- EU Joint Research Center, 2016.
- Kerolli-Mustafa, M. and Gjokaj, E., 2016. Effects of Quail Droppings as a Fertilizers and Rates of Application on Garden Soil in Mitrovica, Kosovo. In: GREDIT'2016 – GREEN DEVELOPMENT INFRASTUCTURE TECHNOLOGY. Skopje, Macedonia: 31 March – 2 April 2016.
- 3. Lajqi-Makolli, V., Kerolli-Mustafa, M., Malollari, I. and Lajqi, J., 2015. Migration of Di-(2ethylhexyl)Adipate (DEHA) and Acetyl Tributyl Citrate (ATBC) Plasticizers from PVC Film into the Food Stimulant of Isooctane. *Material Science and Engineering Technology*, 46(1), pp.16– 23. doi:10.1002/mawe.201400256.

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Research areas

Agricultural policy; economic development and economic policy; national competitiveness.

- 1. Stanojevic, J., Krstic, B. and Djekic, S., 2015. Analysis of the Labour Productivity of the Agricultural Sector in the Republic of Serbia. *Economic themes*, 53(4), pp.467–482.
- 2. Stanojevic, J. and Stanojevic, M., 2015. Structural Changes in Agriculture of the European Union. In: Faculty of Business and Management Sciences Novo Mesto, School of Business and Management, *International Scientific Conference: Globalisation Challenges and Socialeconomic Environment of the EU*. Novo Mesto, Slovenia: 16-17 April 2015.
- 3. Krstic, B., Stanisic, T. and Stanojevic, J., 2015. Financial Support of Government for Increasing the Level of Efficiency and Competitiveness of Agriculture in the EU. In: *Regional Scientific and Professional Conference: Sustainable Economic Development A Modern and Multidisciplinary Approach.* Belgrade, Serbia: 11 June 11 2015.





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Research areas Agriculture economics.



KOSOVO

- 1. Halimi, K. and Gjokaj, E., 2016. CAP Impact on Economic Growth and Sustainability of Agriculture and Rural Areas, Kosovo's Case. In: EAAE, European Association of Agricultural Economists, *147th EAAE Seminar: CAP Impact on Economic Growth and Sustainability of Agriculture and Rural Areas*. Sofia, Bulgaria: 7-8 October 2015. Sofia: EAAE.
- 2. Gjokaj, E., and Halimi, K., 2016. The Impact of Rural Development Grants in Creation of Rural Jobs in Kosovo. In: EAAE, European Association of Agricultural Economists, *160th EAAE Seminar: Rural Jobs and the CAP European Association of Agricultural Economists*. Warsaw, Poland: 1-2 December 2016. Warsaw: EAAE.
- 3. Gjokaj, E. and Halimi, K., 2016. Analysis of the Development of SME in the Agrofood System in Kosovo. Sofia: IAE, 2016.

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Research areas

Agricultural and rural development policy; international agricultural and rural development policy; project management; farm management.

Selected relevant publications

- 1. Dimitrievski, D., Kotevska, A., Janeska Stamenkovska, I., Tuna, E. and Nacka, M., 2016. FYR of Macedonia: Agricultural Policy Briefln: T. Volk, E. Erjavec, P. Ciaian and S. Gomez-y-Paloma, eds. 2016. *Analysis of the Agricultural and Rural Development Policies of the Western Balkan Countries*. Luxembourg: Joint Research Centre, European Commission. Ch. 5.
- 2. Dimitrievski, D., Kotevska A., Janeska Stamenkovska, I., Tuna, E. and Nacka, M., 2014. Agriculture and Agricultural Policy in the Former Yugoslav Republic of Macedonia. In: T. Volk, E. Erjavec and K. Mortensen, eds. 2014. *Agricultural Policy and European Integration in Southeastern Europe*. Budapest: Food and Agriculture Organization of the United Nations. Ch. B.V.
- 3. Dimitrievski, D., Georgiev, N., Simonovska, A., Martinovska Stojceska, A., and Kotevska, A., 2010. Review of Agriculture and Agricultural Policy in FYR Macedonia. In: T. Volk, ed. 2010. *Agriculture in the Western Balkan Countries*. Halle (Salle): IAMO, 57, pp.145–164. http://purl. umn.edu/96200

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Research areas

Financial and investment analysis in agriculture; statistics; management of fruit production and viticulture; agricultural economics.

- Kotevska, A., Bogdanov, N., Nikolic, A., Dimitrievski, D. and Gjosevski, D., 2015. Conclusions and Recommendations. In: A. Kotevska and A. Martinovska-Stojceska, eds. 2015. *The Impact of Socio-Economic Structure of Rural Population on Success of Rural Development Policy – Macedonia, Serbia and Bosnia and Herzegovina*. Skopje: Association of Agricultural Economists of Republic of Macedonia. Ch. 10.
- 2. Simonovska, A., Gjosevski, D. and Campos, M., 2014. The Effects of Financial Decisions on Farm Profitability in the Republic of Macedonia: Evidences from a Transition Economy. *Outlook on Agriculture*, 43(4), pp.273–280. http://dx.doi.org/10.5367/oa.2014.0185
- 3. Hristov, J., Andersson, H. and Gjosevski, D., 2012. Economics of Fragmented Land for Vegetable Growers in Skopje and the Southeastern Region of the Republic of Macedonia. *Outlook on Agriculture*, 41(2), pp.109–115.http://oag.sagepub.com/content/41/2/109.abstract





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Research areas

Management of field production; farm business management; entrepreneurship.

Selected relevant publications

- 1. Pesevski, M., Pockovska, K., Zivkovic, D. and Ralevic, N., 2016. Energy Efficiency in the Production of Tomatoes Outdoors.In: AAEM (Association of Agricultural Economists of the Republic of Macedonia), *10th International Conference: Policy and Economics for Sustainable Agriculture and Rural Development*, pp.209–216. Ohrid, Macedonia: 12-14 Maj 2016.
- 2. Pesevski, M., Stojoska, S. and Bajdevski, B., 2015. The Impact of Tobacco Production on Economic Size of Agricultural Holdings in Republic of Macedonia. *Global Advanced Research Journal of Management and Business studies*, 4(8), pp.325–332.
- 3. Peševski, M. and Stojkov, A., 2014. Economic Analysis of Pepper Production in Republic of Macedonia. In: International Scientific Conference: Sustainable Agriculture and Rural Development in terms of the Republic of Serbia Strategic Goals Realization within the Danube Region Rural Development and (Un)Limited Resources, Thematic Proceedings, pp.377–392. Belgrade, Serbia 5-6 June 2014.

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Research areas

Models and analysis in agriculture; marketing in agriculture; agricultural economics.

Selected relevant publications

- 1. Georgiev, N., Gjosevski, D., Simonovska, A. and Nacka M., 2015. Opportunities to Profit under Competitive Market Conditions: The Case of the Macedonian Wineries. In: IAAE (International Association of Agricultural Economists), *29th International Conference of Agricultural Economists: Agriculture in an Interconnected World*. Milan, Italy: 8-14 August 2015.
- 2. Jakimovski , M., Georgiev, N. and Nacka, M., 2015. Market Analysis of the Medicinal and Aromatic Plants in the Republic of Macedonia and the Economic Aspects of the Cultivation Process. In: FZNH (Faculty of Agricultural Sciences and Food), *2nd International Symposium of Agriculture and Food*. Ohrid, Republic of Macedonia: 7-9 October 2015.
- 3. Milevski, S., Georgiev, N. and Nacka, M., 2014. Forecasting of Apple Retail Prices in the Republic of Macedonia. In: AAEM (Association of Agricultural Economists of the Republic of Macedonia), 9th International Conference: The Role of Agricultural Economic Sciences in Agriculture and Rural Development in the Balkan Countries. Skopje, Republic of Macedonia: 24-25 April 2014.







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Research areas

Rural development; cooperatives; agricultural economics.

Selected relevant publications

- 1. Azderski, J. and Popovska, D., 2015. Causes and Consequences of Migration and Deagrarization in Rural Areas in the Republic of Macedonia. *Agriculture and Forestry*, 61, pp.263–269.
- 2. Tuna, E. and Azderski, J., 2015.Agricultural Cooperatives Social Networks for Information Transfer in Post-socialist Countries. In: AAEM (Association of Agricultural Economists of the Republic of Macedonia), *10th International Conference: Policy and Economics for Sustainable Agriculture and Rural Development*, Proceeding of papers.Ohrid, Macedonia: 12-14 Maj 2016.
- 3. Petrovska, M. and Azderski, J., 2012. Analysis the Organizational Potential in the Republic of Macedonia for Establishment of Rural Development Network. In: FZNH (Faculty of Agricultural Sciences and Food), *International Symposium of Agriculture and Food*, Proceeding of papers, pp.55–69. Skopje, Republic of Macedonia: 12-14 December 2012.

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Research areas

Farm management and accounting; productivity analysis; farmers' behavior; rural development.

- 1. Martinovska-Stojcheska, A., Kotevska, A., Bogdanov, N. and Nikolic, A., 2016. How do farmers respond to rural development policy challenges? Evidence from Macedonia, Serbia and Bosnia and Herzegovina. *Land Use Policy*, 59, pp.71–83. doi:10.1016/j.landusepol.2016.08.019
- 2. Hristov, J., Martinovska-Stojcheska, A. and Surry, Y., 2015. Virtual Water and Input–output Framework: An Alternative Method for Assessing Trade and Water Consumption in FYR Macedonia. *Water Science and Technology: Water Supply*, 15(2), pp.317–326.doi:10.2166/ ws.2014.118
- 3. Kotevska, A., Martinovska-Stojcheska, A., Öhlmér, B. and Dimitrievski, D., 2013. Attitude of MacedonianFarmers towards EU Accession. *Agroeconomia Croatica*, 3(1), pp.9–17. http://haed.hr/dokumentacija/aec3/2.pdf





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Research areas

Agricultural and rural development policy; farmer behavior; sector modeling; EU integration.

Selected relevant publications

- 1. Martinovska-Stojcheska, A., Kotevska, A., Bogdanov, N. and Nikolic, A., 2016. How do farmers respond to rural development policy challenges? Evidence from Macedonia, Serbia and Bosnia and Herzegovina. *Land Use Policy*, 59, pp.71–83.doi:10.1016/j.landusepol.2016.08.019
- Kotevska, A. and Martinovska Stojcheska, A., eds., 2015. The Impact of Socio-economic Structure of Rural Population on Success of Rural Development Policy: Macedonia, Serbia and Bosnia and Herzegovina. Skopje: Association of Agricultural Economists of Republic of Macedonia, ISBN: 978-9989-2358-6-3.
- 3. Dimitrievski, D., Kotevska A., Janeska Stamenkovska, I., Tuna, E. and Nacka, M., 2014. Agriculture and Agricultural Policy in the Former Yugoslav Republic of Macedonia. In: T. Volk, E. Erjavec and K. Mortensen, eds. 2014. *Agricultural Policy and European Integration in Southeastern Europe*. Budapest: Food and Agriculture Organization of the United Nations. Ch. B.V.

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Research areas

Institutional economics; social networks; rural development.

- 1. Tuna, E., Milic, T., Becirovic, E. and Andjelkovic, B., 2016. Farmers Social Network Structure and Information Flow. In: A. Kotevska and A. Martinovska-Stojceska, eds. 2015. *The Impact of Socio-Economic Structure of Rural Population on Success of Rural Development Policy – Macedonia, Serbia and Bosnia and Herzegovina*. Skopje: Association of Agricultural Economists of Republic of Macedonia. Ch. 9.
- 2. Tuna E., Karantininis, K. and Hajdellari, L., 2014. *How is Social Capital Structuring Social Networks in Post-communist Countries? The Case of Dairy Farm Networking in FYROM.SLU, Swedish University of Agricultural Sciences, ISSN 1652-6880.*
- 3. Tuna, E. and Nilsson, J., 2013. Institutional Mismatch in Transition Economy The Collapse of Swedmilk Macedonia. *Journal of Agribusiness in Developing and Emerging Economies*, 3(2), pp.84–100. doi:http://dx.doi.org/10.1108/JADEE-05-2012-0013







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Research areas

Farm management; farm accountancy; decision-making in agriculture.

Selected relevant publications

- 1. Dimitrievski, D., Kotevska, A., Janeska Stamenkovska, I., Tuna, E. and Nacka, M., 2016. FYR of Macedonia: Agricultural Policy Brief In: T. Volk, E. Erjavec, P. Ciaian and S. Gomez-y-Paloma, eds. 2016. *Analysis of the Agricultural and Rural Development Policies of the Western Balkan Countries*. Luxembourg: Joint Research Centre, European Commission. Ch. 5.
- 2. Dimitrievski, D., Kotevska A., Janeska Stamenkovska, I., Tuna, E. and Nacka, M., 2014. Agriculture and Agricultural Policy in the Former Yugoslav Republic of Macedonia. In: T. Volk, E. Erjavec and K. Mortensen, eds. 2014. *Agricultural Policy and European Integration in Southeastern Europe*. Budapest: Food and Agriculture Organization of the United Nations. Ch. B.V.
- Dzabirski, V., Porchu, K., Martinovska Stojceska, A., Belichovska, K., Janeska Stamenkovska, I. and Milevska, J., 2013. Determination of Agri-Environmental Supporting Rates to Protect Biodiversity of Indigenous Sheep Breads. In: AgroSym, 4th International Agronomic Symposium, AgroSym 2013, Proceedings, pp.1241–1247. Jahorina, Bosnia and Herzegovina: 3-6 October 2013.

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Research areas

Financial and investment analysis in agriculture; statistics; institutional economics; rural development.

- Bogdanov, N., Simonovska, A. and Nikolic, A., 2015. Socio-economic Characteristics of Surveyed Farmers Relevant for Participation in Rural Development Program. In: A. Kotevska and A. Martinovska-Stojceska, eds. 2015. The Impact of Socio-Economic Structure of Rural Population on Success of Rural Development Policy – Macedonia, Serbia and Bosnia and Herzegovina. Skopje: Association of Agricultural Economists of Republic of Macedonia. Ch. 6.
- 2. Simonovska, A., Gjosevski, D. and Campos, M., 2014. The Effects of Financial Decisions on Farm Profitability in the Republic of Macedonia: Evidences from a Transition Economy. *Outlook on Agriculture*, 43(4), pp.273–280. doi:http://dx.doi.org/10.5367/oa.2014.0185
- 3. Simonovska, A. and Nilsson, J., 2011. Conditions for Structural Change in the Macedonian Dairy Industry– The Dairy Farmers' Choice of Processors. *Post-communist Economies*, 23(4), pp.539–551.doi:http://dx.doi.org/10.1080/14631377.2011.622577





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Research areas

Marketing of agri-food products; intellectual property rights in agriculture; models and analysis in agriculture.

Selected relevant publications

- 1. Nacka, M., Georgiev, N. and Simonovska, A., 2016. Young Consumer Preferences for Macedonian Wine. *Agriculture and Forestry*, 62(2), pp.103–110. http://www.agricultforest. ac.me/data/20160629-09%20Nacka.pdf
- 2. Nacka, M., Geogriev, N. and Dabovic Anastasovska, J., 2013. Economics of Industrial Property Rights: Use of Geographical Indications as a Marketing Strategy for Competitiveness of Wine Sector. *Agroeconomica Croatica*, 3(1), pp.38–45.http://haed.hr/dokumentacija/aec3/6.pdf
- 3. Nacka, M. and Georgiev, N., 2013. *Marketing and Competitiveness of Wine Sector in Republic of Macedonia An Aspect of Industrial Property Rights*.Saarbrucken, Germany:Lap Lambert Academic Publishing.

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Research areas

Agribusiness

- 1. Elenov, R., Dimitrievski, D., Sredojevic, Z., Milic, d. (2011). *Agrobiznis*. Faculty of agricultural sciences and food Skopje. ISBN 978-9989-845-42-0.
- 2. Bulatovic, B.K., Elenov, R., Milic, D., Peco, E. (2015). Production economical aspects of dried plums at family farms. Proceeding of papers of the 2nd International Symposium for Agriculture and Food. ISAF 7-9 October, 2015. Ohrid, Republic of Macedonia.
- 3. Milic, D., Elenov, R., Dimitrijevic, B., Milovancevic, Z. (2016). Raspberry production as a development engine of family holdings. Proceedings of papers Policy and Economics for Sustainable Agricultual and Rural Development: 156-165. 12-14 May, 2016. Ohrid, Republic of Macedonia. AAEM (Association of Agricultural Economists of the Republic of Macedonia). UDC 634.711 (497.11).







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Research areas

Sociology, Sociology of politics, Civil Society and Development.

Selected relevant publications

- 1. "The Development of Civil Society in the Republic of Macedonia: Modeling State-civil Society Relations; in Civic and Uncivic Values in Macedonia: Value Transformation, Education and Media, eds. Ramet, P. S, O. Listhaug, and A. Simkus, Palgrave Macmillan, February 2013
- 2. Local Development of the Municipalities of Radovish, Konce and Podares co-authored with KartalovHristo and others. World Bank and Agency for Development, Skopje 2001 (Локалниот развој на општините Радовиш, Конче и Подареш), Светска Банка и Агенција за развој, Skopje 2001)
- 3. The Civil Sector in Macedonia (DA, Washingotn, USA, www.usaid.org.mk/Art/Macedonia_ Civil_Society_Final_Report.pdf)

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Research areas

Economic Sociology, Sociology of work, European Integrations

- 1. Mileva, Gj.(2015). Sociology of work, Faculty of Philosophy, ;
- 2. Mileva, Gj. and all.. (Ed.: DavorkaVidovic), Strategic study of Social Economy in SEE, European Movement Macedonia- European Movement Serbia, 2015;
- 3. Mileva, Gj. (2015). Geneder (In)Equality in South East Europe, Palgrave Mc Milan Publisher and NTNU Trondheim (Ed. Sabrina Ramet and Christine Hassentab), .





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Research areas

Entrepreneurship and innovation; youth entrepreneurship; business management; human resource management.

Selected relevant publications

- Забијакин Чатлеска, В., Борота Поповска М. и Топузовска Латковиќ, М., 2016. Мултиетничка истражувачка студија за младинско претприемништво. Скопје: Фондација за менаџмент и индустриско истражување и ИСППИ.
- 2. BorotaPopovska, M., ZabijakinChatleska, V. and TopuzovskaLatkovikj, M., 2016. Young Entrepreneurs' Capacity for Public Policy Advocacy in Macedonia. In: IBANESS, *International Balkan and Near Eastern Social Sciences Conference*. Prilep, Macedonia: 29-30 October 2016.
- 3. ZabijakinChatleska, V., 2014. The Human Resource Practices as Driver of Innovations in SMEs. In:ICEIRD 2014, The 7th International Conference for Entrepreneurship, Innovation and Regional Development, Proceedings, pp.64–72. Nicosia, Cyprus:5-6 June 2014.

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Research areas

Management in agriculture.

Selected relevant publications

- 1. Ackovska, M., PetroskaAngelovska, N., HadziNaumovaMihajlovska, K., 2016. Absorbtion Efficiency of IPARD Funds in Financing Macedonian Agritourism Development. In: IBANESS, *International Balkan and Near Eastern Social Sciences Conference Series*. Prilep, Macedonia: 29-30 October 2016.
- HadziNaumova Mihajlovska, K., 2016.Reengineering in Organization of Organic Agricultural Sector in Republic of Macedonia.*Economic Development*, Journal of Institute of Economics – Skopje, 1-2, pp.363–367.http://www.ek-inst.ukim.edu.mk/docs/Economic-Development-Year-18-no-1-2-2016.pdf
- 3. HadziNaumova Mihajlovska, K. and Daniloska, N., 2015. The Relationship Between TQM And Organic Production: Opportunity for Associations of Producers of Organic Products in Republic of Macedonia. *Journal of Sustainable Development*, 5(13), pp.16–32.http://www.fbe.edu.mk/JoSDv13.pdf



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Research areas

Financial management; economic development; agricultural economics.

Selected relevant publications

- Jankulovski, N., Angelova, B., Dojchinovski, T., Bojkovska, K., Arapcheska, M. and Jankulovska, A., 2015. Analysis of the Regions in Terms of Promoting Regional Development of Republic of Macedonia.*International Journal of Economics and Finance*, 7(10), pp.247–257.doi:http:// dx.doi.org/10.5539/ijef.v7n10p247
- 2. Jankulovski, N., Bojkovska, K. and Mihajlovski, G., 2014. The Financial Conditions and Prospects of Municipality of Bitola, Republic of Macedonia. *International Journal of Economics and Finance*, 6(11), pp.197–202.
- 3. doi: http://dx.doi.org/10.5539/ijef.v6n11p197
- 4. Jankulovski, N., Angeloska, M. andBojkovska, K., 2014. Strategic Policiesof the Local Municipalities in the Direction of CreatingConditionsforLocal Economic Development. In: Facultyof OrganizationalSciences, XII International Symposium, Organizational Sciences and Knowledge Management. Belgrade, Serbia: Facultyof OrganizationalSciences.

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Research areas

Tourism, Rural Development, Tourism Development, Hospitality, Specific Forms of Tourism

- Angelkova, T., Cvejic, R., Madžgalj, J., and Kuka, M., 2014. Sustainable rural tourism in the revitalization of villages in the border region between Macedonia and Serbia. Beograd: Scientific professional society for environmental protection of Serbia - *Ecologica* 73, pp.18-25. ISSN 0354–3285
- 2. Calkov, P., and Angelkova, T., 2013. Ecotourism contemporary type of tourism. First International Conference Mediterranean Tourism MT-2013, 14-15 June 2013, Nis, Serbia.
- 3. Angelkova, T., Koteski, C., Jakovlev, Z., and Mitreva, E., 2011. Sustainability and Competitiveness of Tourism. In: XI International Conference, 27-29 October 2011, Ohrid, Macedonia.





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Research areas

Project cycle management; competitiveness.

Selected relevant publications

- 1. Hadzievski, V., 2016. Investigation of Competitive Ability in the Production of Cow milk in the Republic of Macedonia.PhD. Ss. Cyril and Methodius University in Skopje, Faculty of Agricultural Sciences and Food Skopje.
- Nacka, M., Georgiev, N., Tuna, E. and Hazdievski, V., 2013. Support in Decision-Making for Protection of Geographical Indications of Macedonian Agro-Food Products. In: DAES (Slovenian Association of Agricultural Economists), 6th DAES Conference: Tools for Decission Support in Agriculture and Rural Development.Krško, Slovenia:18-20 April 2013.
- 3. Gjosevski, D., Simonovska, A., Dimitrievski, D., Georgiev, N., Pesevski, M., Azderski, J., Kotevska, A., Tuna, E., JaneskaStamenkovska, I., Nacka, M., Hadzievski, V. and Nikolovska, V., 2015. Capturing the Farmland Market Data in the Republic of Macedonia. In: FZNH (Faculty of Agricultural Sciences and Food), *2nd International Symposium of Agriculture and Food*. Ohrid, Republic of Macedonia: 7-9 October 2015.

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Research areas

Marketing in agriculture.

- 1. Georgiev, N. and Kocev, K., 2010. Analiza Maloprodajnih Cena Jabuka i Pomorandži kao Supstituta na Zelenim Tržnicama u Republici Makedoniji. *Radovi Poljoprivredno Prehrambenog Fakulteta Univeryiteta u Sarajevu*, LV(60/1), pp.172–178.
- Kocev, K. and Georgiev, N., 2007. Korišćenje Potencijala Putem Diferencijacija Cena za Kategorije Svinja na Stočnim Pijacama u Republici Makedoniji. *Zbornik: XII Savetovanje o Biotehnologiji*, 12(13), pp.509–515.
- 3. Georgiev, N. andKocev, K., 2006.Diferencijacija Cena Kategorija Ovacana Stočnim Tržnicama Republike Makedonije. *Zbornik: XIX Naucni-strucni Sobir o Poljoprivrede i Industrija*.Neum, Bosna i Hercegovina.







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Research areas

Decision making; econometrics; thematic networks; analytic hierarchy/ network processes; intelligent techniques; rural institutions.



- 1. Agapie, A. and Lima, T., 2013. Cost Minimization under Variable Input Prices. *Romanian Journal of Economic Forecasting*, 16(2), pp.70–86. http://www.ipe.ro/rjef/rjef2_13/rjef2_2013p70-86.pdf
- 2. Agapie, A., Lima, T. and Peia, O., 2013. A Theoretical Approach for Estimating Learning Curves in the Presence of Administered Prices. *The Macrotheme Review*, 2(4), pp.97–105. http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.426.2495&rep=rep1&type=pdf
- 3. Agapie, A., 2009. *Computational Intelligence Techniques in Econometric Modelling: The Case of Romania*. Cologne, Germany: Lap Lambert Academic Publishing. ISBN 978-3-8383-22186.

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Research areas

Agricultural and rural development policy and EU integration process; socioeconomic analysis of rural areas within local system framework; macro-economic analysis related to agriculture and family farms; rural poverty and rural labour market.

Selected relevant publications

- 1. Martinovska-Stojcheska, A., Kotevska, A., Bogdanov, N. and Nikolic, A., 2016. How do farmers respond to rural development policy challenges? Evidence from Macedonia, Serbia and Bosnia and Herzegovina. *Land Use Policy*, 59, pp.71–83. doi:10.1016/j.landusepol.2016.08.019.
- 2. Bogdanov, N., 2016.*Rural Development and Rural Policy*. Belgrade, Serbia: Faculty of Agriculture, University of Belgrade.
- Battaglini, E., Babović, M. and Bogdanov, N., 2015. Framing Resilience by Territorialisation.In: A. Palovita and M. Jarvela, eds.*Climate Adaptation, Policy and Food Supply Chain Management in Europe*. London: Routledge.pp.119–131.

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Research areas

Theory of costs and calculations; finance; economics of investments; risk and insurance; agricultural and rural development.

- 1. Vasiljević, Z. and Popović, V., 2014. Ekonomsko-finansijska Komponenta Razvoja Sela i Poljoprivrede. In: D. Škorić, ed. *Zbornik Radova sa Naučnog Skupa: Perspektive Razvoja Sela (SANU)*, Knjiga CXLV, Knjiga 5. Beograd: Odeljenje Hemijskih i Bioloških Nauka. str.163–185.
- 2. Vasiljević, Z. and Predrag, D., 2011. Javno-privatno Partnerstvo: Neiskorišćen Razvojni Potencijal Ruralnih Sredina. *Ekonomika Poljoprivrede*, LVIII(SB-2), str. 125–135.
- Vasiljević, Z., Lovrić, D. and Novikov, P., 2010. Importance of the European Union Funds for the Regional and Rural Development in the Republic of Serbia. *International Monograph: Agriculture in the Process of Adjustment to the Common Agriculture Policy*. Skopje: Ss. Cyril and Methodius University in Skopje, Faculty of Agricultural Sciences and Food-Skopje. pp.305– 318.







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Research areas

Investment and business economics of agricultural holdings; economic justification of investment in land reclamation; economic feasibility of organic production on family farms in rural areas.

Selected relevant publications

- Sredojević, Z. and Popović, N., 2014. Sheep Farming Pastures Sustainability: An Economic Model of Sheep Farm for Rural Areas in Serbia. In:IAE (Institute of Agricultural Economics), International Scientific Conference: Sustainable Agriculture and Rural Development in terms of the Republic of Serbia Strategic Goals Realization within the Danube Region–Achieving Regional Competitiveness, Thematic Proceedings, pp.1006–1023. Belgrade, Serbia: 5-6 June 2014. Belgrade: Institute of Agricultural Economics.
- Sredojević, Z., Kljajić, N. and Popović, N., 2013. Investing in Raspberry Production as an Opportunity of Sustainable Development of Rural Areas in Western Serbia. *Economic Insights – Trends and Challenges*, II/LXV(1), pp.63–72. http://www.upg-bulletin-se.ro/ archive/2013-1/6.Sredojevic_Kljajic_Popovic.pdf
- 3. Gajić, B., Tomić, Z. and Sredojević, Z., 2013. A Simple Method Estimates and Economic Indicators of Photovoltaic Systems for Drip Irrigation. *Economics of Agriculture*, LX(2), pp.223–236.

http://bsaae.bg.ac.rs/images/Ekonomika%20kompletna/2013/Broj%202-2013.pdf.pdf

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Research areas

Agricultural and rural development policy; macroeconomic analysis related to the agriculture and rural areas; institutional framework of rural areas.

- Bogdanov, N., Stevović, M. and Papić, R., 2016. Agricultural Policy of Serbia Challenges and Current Solution. In: Ž. Stojanović, N. Bogdanov and M. Ševarlić, eds. *Status and Perspectives* of Agribusiness and Rural Areas in Serbia. Belgrade, Serbia: NDES, Faculty of Economy University of Belgrade. pp. 114–136.
- 2. Papić, R. and Bogdanov, N., 2015. *Rural Development policy A perspective of local actors in Serbia. Economics of Agriculture*, LXII(4), pp.1079–1093.
- Papić, R. and Milić, T., 2015.Significance of Social Networks for the Process of Application for Rural Development Support. In: V. Poleksić and Z. Marković, eds. 2015.VII International Conference: Water & Fish, Conferences proceedings. Belgrade, Serbia: Faculty of Agriculture, University of Belgrade. pp.402–407.





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Research areas

Economic sociology; rural development; gender equality; poverty and social exclusion; territorial development.

Selected relevant publications

- 1. Bataglini, E. and Babovic, M., 2015. Nature and Culture in Territorialisation Processes: Challenges and Insights from a Case Study in Serbia. In:J. Dessain, L. Horlings and E. Battaglini, eds. *Cultural Sustainability and Regional Development: Theories and Practices of Territorialisation*. London: Routledge.pp.59–72.
- Battaglini, E., Babović, M. and Bogdanov, N., 2015. Framing Resilience by Territorialisation. In: A. Palovita and M. Jarvela, eds. *Climate Adaptation, Policy and Food Supply Chain Management in Europe*. London: Routledge. pp.119–131.
- Babovic, M., 2014. Rodni Aspekti Pristupa Ekonomskim Resursima u Procesima Teritorijalizacije: Istraživanje u Zlatiborskom Regionu(eng. Gender Aspects of the Access to Economic Resources within the Processes of Territorialization: Research in Zlatibor Region). Socioloski pregled, XLVIII(3), pp.353–381.

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Research areas

Environmental sociology; rural sociology; sustainable development; urban sociology.

Selected relevant publications

- 1. Petrović, M.ed., 2013. Challenges of Sustainable Development. Belgrade: Cigoja Press.
- 2. Vukelic, J., 2015. Who are the Environmental Activists and Leaders of the Environmental Movements in Serbia.*Kultura*, 148, pp.123–143.
- 3. Petrovic, M. and Vukelic, J., 2013. The Transformation of the Governance Regime in Serbia: Public Participation in Environmental Decision Making. In: C. Gordon, M. Kmezic and J. Opardija, eds.*Stagnation and Drift in the Western Balkans The Challenges of Political, Economic and Social Change*. Berlin: Peter Lange. pp.93–116.



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Research areas

Sustainability of agricultural production; specifics of management of environmental friendly agricultural production; renewable sources of energy; socio-economic and environmental implications of poultry production.



Selected relevant publications

- 1. Rodić, V., Bošnjak, D. and Vukelić, N., 2007. Sustainability of Agricultural Land Management in the Autonomous Province of Vojvodina. In: EAAE (European Association of Agricultural Economists), 100th Seminar of the EAAE: Development of Agriculture and Rural Areas in Central and Eastern Europe, Proceedings, pp.429–439. Novi Sad: 21-23 June 2013. Novi Sad: EAAE.
- 2. Zekić, V., Rodić, V. and Jovanović, M., 2010.Potentials and Economic Viability of Small Grain Residue Use as a Source of Energy in Serbia. *Biomass and Bioenergy*, 34(12), pp.1789–1795. doi:10.1016/j.biombioe.2010.07.012
- 3. Rodić, V., Perić, L., Pavlovski, Z. and Milošević, N., 2010. Improving the Poultry Sector in Serbia: Major Economic Constraints and Opportunities.*World's Poultry Science Journal*, 66(2), pp.241–250. doi:10.1017/S0043933910000292

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Research areas

Farm economics; risk management and insurance.



- Marković, T., Husemann, C., Ivanović, S. and Zekić, V., 2015. Drought Insurance in Wheat and Corn Production with Weather Derivatives: The Case of Serbia. *Custose @gronegócio*, 11(4), pp.189–202.http://www.custoseagronegocioonline.com.br/numero4v11/9%20insurance. pdf
- 2. Marković, T., Ivanović, S. and Pajić, M., 2014. Costs and Profit in Chamomile Production using Weather Put Option. *Custos e @gronegócio*, 10(2), pp.285–295. http://www. custoseagronegocioonline.com.br/numero2v10/Artigo%2014%20chamomile.pdf
- 3. Marković, T., 2013. *Weather Derivatives and Risk Management in Agriculture, Monograph*. Novi Sad, Serbia: University of Novi Sad, Faculty of Agriculture. ISBN 978-86-7520-280-6

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Research areas

Rural sociology; agricultural extension services; rural development.

Selected relevant publications

- 1. Šljukić, S. i Janković, D., 2015. *Selo u Sociološkom Ogledalu* (eng. The Rural in the Sociological Miror). Novi Sad: Mediterran Publishing.
- Bogdanov, N. and Janković, D., 2013. Territorial Capital of Rural Areas: An Example of Analysis of the Potential for Rural Tourism Development in Serbia. In: D. Škorić, D. Tomić and V. Popović, eds. *Agri-Food Sector in Serbia State and Challenges*. Belgrade: Serbian Association of Agricultural Economics and Serbian Academy of Sciences and Arts. pp.201–233.
- Petrović, Ž. i Janković, D., 2010. Poljoprivredno Savetodavstvo Srbije Stanje, Problemi i Mogućnosti Reformi. (eng. Agricultural Extension of Serbia – State, Problems and Possible Reforms). Novi Sad, Serbia: Poljoprivredni fakultet Novi Sad. ISBN 978-86-7520-186-1.

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Research areas

Economics of organic agriculture; sustainable rural development; sustainable agriculture practice.

Selected relevant publications

- 1. Tomaš-Simin, M. and Janković, D., 2014. Applicability of Diffusion of Innovation Theory in Organic Agriculture. *Economics of Agriculture*, LXI(2), pp.517–529. http://bsaae.bg.ac.rs/images/Ekonomika%20kompletna/2014/EP%20-%202%20-%202014%20-%20 kompletna%20sveska.pdf
- 2. Tomaš-Simin, M. and Popović-Vranješ, A., 2013. Organic Agriculture as a Factor of Rural Development in Serbia. In: IAE (Institute of Agricultural Economics), *International Scientific Conference: Sustainable Agriculture and Rural Development in Terms of the Republic of Serbia Strategic Goals Realization Within the Danube Region*, Thematic Proceedings, pp.1042–1058. Belgrade, Serbia: Institute of Agricultural Economics.
- 3. Tomaš, M., 2011. Organska Proizvodnja i Sertifikacija. Beograd: Zadužbina Andrejević.

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Research areas

Agricultural economics; rural development; agrarian policy.

Selected relevant publications

- 1. Zekić, S., Matkovski, B. and Kleut, Ž., 2016. IPARD Fondovi u Funkciji Razvoja Ruralnih Područja Srbije. *Ekonomski Horizonti*, 18(2), str.169–180. doi:10.5937/ekonhor1602169Z
- 2. Zekić, S. and Matkovski, B., 2014. New CAP Reform and Serbian Agriculture. In:IAE (Institute of Agricultural Economics), International Scientific Conference: Sustainable Agriculture and Rural Development in terms of the Republic of Serbia Strategic Goals Realization within the Danube Region –Rural Development and (Un)Limited Resources, Thematic Proceedings, pp. 1095–1110. Belgrade, Serbia: 5-6 June 2014. Belgrade: Institute of Agricultural Economics.
- 3. Zekić, S., Gajić, M. and Lovre, K., 2010. Partial Productivity of Agriculture in Western Balkan Countries – Implication on Competitive of the Rural Economy. *Economics of Agriculture*, 57(1), pp.23–33.

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- 1. Zekić, S., Matkovski, B. and Kleut, Ž., 2016. IPARD Fondovi u Funkciji Razvoja Ruralnih Područja Srbije. *Ekonomski Horizonti*, 18(2), str.169–180. doi:10.5937/ekonhor1602169Z
- 2. Zekić, S. and Matkovski, B., 2015. Razvojne Mogućnosti Ruralnih Područja Srbije. *Zbornik Matice Srpske za Društvene Nauke*, 153(4), str.763–777.
- 3. Zekić, S. and Matkovski, B., 2014. New CAP Reform and Serbian Agriculture. In:IAE (Institute of Agricultural Economics), International Scientific Conference: *Sustainable Agriculture and Rural Development in terms of the Republic of Serbia Strategic Goals Realization within the Danube Region*–Rural Development and (Un)Limited Resources, Thematic Proceedings, pp. 1095–1110. Belgrade, Serbia: 5-6 June 2014. Belgrade: Institute of Agricultural Economics.



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Research areas

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Selected relevant publications

- 1. Zekić, S., Matkovski, B. and Kleut, Ž., 2016. IPARD Fondovi u Funkciji Razvoja Ruralnih Područja Srbije. *Ekonomski Horizonti*, 18(2), str.169–180. doi:10.5937/ekonhor1602169Z
- 2. Zekić, S., Kleut, Ž. and Matkovski, B., 2016.Podrška Ruralnom Razvoju Srbije u Procesu Evropskih Integracija. In: Ekonomski Fakultet u Subotici, XXI Internacionalni Naučni Skup Strategijski Menadžment i Sistemi Podrške Odlučivanju u Strategijskom Menadžmentu. Subotica-Palić, Srbija: 19 Maj 2016.

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Research areas

Rural sociology; agricultural extension; rural tourism; rural family; rural women.

- 1. Čikić, J. and Petrović, M., 2015. Rural Families and Households in Post-Socialist Transition: Serbian Experience. *Eastern European Countryside*, 21(1), pp.35–62.
- 2. Čikić, J. and Jovanović, T., 2015. *Diffusion of Knowledge and Development of Rural Tourism in Vojvodina*(original in Serbian). Novi Sad: Faculty of Science.
- 3. Čikić, J. and Petrović, Ž., 2010. Organic Agriculture and Farms in Serbia Rural Sociological Perspective(original in Serbian). Novi Sad: Faculty of Agriculture.





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Research areas

Rural development; agro-environment; biodiversity protection; sustainable regional development.

Selected relevant publications

- 1. Đorđević-Milošević, S. and Milovanović, J., 2013. *Održivi Turizam u Funkciji Ruralnog Razvoja: Mala Poljoprivredna Gazdinstva i Ruralni Turizam u Srbiji*. Beograd: Fakultet za Primenjenu Ekologiju Futura; Vršac: Agroznanje; Budimpešta: FAO - Food and Agriculture Organisation of the United Nations.
- 2. Djordjevic-Milosevic, S. and Ivanov, S., 2012. Serbia. In: R. Oppermann, G. Beaufoy and G. Jones, eds. 2012. *High Nature Value Farming in Europe, 35 European Countries Experiences and Perspectives. EFNCP, European Forum on Nature Conservation and Pastoralism*. Ch. 4.29.
- 3. Keenleyside, C., Đorđević-Milošević, S., Hart, K., Ivanov, S., Redman, M. and Vidojevic, D., 2010.In: T. Cooper and T. Pezold, eds. 2010. *Developing a National Agri-environment Programme for Serbia*. Gland, Switzerland and Belgrade, Serbia: IUCN.

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Research areas

Rural geography; rural planning.



- 1. Drobnjaković, M., 2015. Certain Aspects of Rural Planning in Serbia. *Journal of Geographical Institute Cvijic*, 65(2), pp.161–182.doi: 10.2298/IJGI1502163D
- Drobnjaković, M., 2015. Typology of Rural Settlements as a Platform for Depopulation Process Mitigation in Serbia. In: University of Applied Sciences Hochschule Zittau, Workshop onDepopulation of Rural Areas in Central/Eastern Europe: Causes, Consequences and Solutions. Görlitz, Germany: 11-13 June 2015.Oxford: University of Oxford, The Oxford Institute of Population Ageing. Ch 6.



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Research areas

Agricultural policy; political economy; European integration; development economics; sectoral modeling.

Selected relevant publications

- 1. Erjavec, K. and Erjavec, E., 2015. Greening the CAP Just a Fashionable Justification?: A Discourse Analysis of the 2014-2020 CAP Reform Documents. *Food Policy*, 51, pp.53–62. doi:http://dx.doi.org/10.1016/j.foodpol.2014.12.006
- Volk, T., Rednak, M. and Erjavec, E., 2012. Western Balkans Agriculture and European Integration: Unused Potential and Policy Failures?. *Post-communist economies*, 24(1), pp.111–123. doi:http://dx.doi.org/10.1080/14631377.2012.647631
- 3. Erjavec, E., Chantreuil, F., Hanrahan, K., Donnellan, T., Salputra, G., Kožar, M., van Leeuwen, M., 2011.Policy Assessment of an EU Wide Flat Area CAP Payments System. *EconomicModelling*, 28(4), pp.1550–1558.doi.http://dx.doi.org/10.1016/j.econmod.2011.02.007

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Research areas

Rural sociology; rural gender studies and intergenerational relations; population dynamics; transfer of knowledge in agriculture; urban agriculture; social suffering and resilience of farmers.

- 1. Černič Istenič, M., 2015. Do Rural Development Programmes Promote Gender Equality on Farms? The Case of Slovenia. *Gender, Place and Culture,* 22(5), pp.670–684. Doi: http://dx.doi. org/10.1080/0966369X.2013.879102
- Černič Istenič, M., 2010. Studying Fertility Behaviour of Farm Population as a Contribution to Understanding Overall Low Fertility Trends: The Case of Slovenia. In: A. Bonanno, H. Bakker, R.A., Jussaume, Y. Kawamura and M. Shucksmith, eds. 2010. From Community to Consumption: New and Classical Themes in Rural Sociological Research, (Research in Rural Sociology and development, Vol. 16). Bingley: Emerald Group Publishing Limited. pp.77–91.
- 3. Černič Istenič, M., 2007. Attitudes towards Gender Roles and Gender Role Behaviour among Urban, Rural, and Farm Populations in Slovenia. *Journal of Comparative Family* Studies, 37(3), pp.477–496.







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Research areas

Rural development; farm economics; ecological economics.

Selected relevant publications

- 1. Glumac, R., Franić, R. and Udovč, A., 2016. Stakeholders' Expectations from the Agrienvironmental Programme in Slovenia and Croatia. *Journal of Environmental Planning and Management*, ISSN 0964-0568.
- 2. Slapnik, M., Istenič, D., Pintar, M. and Udovč, A., 2015. Extending Life Cycle Assessment Normalization Factors and Use of Machine Learning – A Slovenian Case Study. *Ecological Indicators*, 50, pp. 161-172.
- 3. Perpar, A. and Udovč, A., 2012. Development Potentials of Rural Area The Case of Slovenia. In:Solagberu, R., ed. 2012. *Rural Development – Contemporary Issues and Practices*. Rijeka, Croatia: InTech, cop. pp. 283-310.

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Research areas

Farm management and production planning; Risk management; Operation research – mathematical programming; Equinomics; Animal health economics;

- 1. Žgajnar, J., 2016. Simulation model based on IACS data; alternative approach to analyse sectoral income risk in agriculture. Acta oeconomica et informatica, 19(1), pp.56-64. ISSN 1336-9261
- Kocjančič, T., Žgajnar, J., Juvančič, L., 2016. Multiple-perspective reorganisation of the dairy sector: mathematical programming approach. Business systems research journal, 7(2), pp.35-48. ISSN 1847-8344
- Žgajnar, J., Juvančič, L., Kavčič, S., 2009. Combination of linear and weighted goal programming with penalty function in optimisation of daily dairy cow ration. Zemědělská ekonomika, 55(10) pp.492-500. ISSN 0139-570X





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Research areas

Agricultural and rural development policy analysis (spatial and environmental impacts of agricultural and rural development policies, regional impacts of structural expenditure); environmental and ecological economic research (e.g. economic valuation of ecosystem services, biophysical valuation of production systems); strategic research: bioeconomy development potentials; agricultural economic research (structural change, risk management, innovation adoption, food consumer research); social sciences (political economy and discourse analysis of CAP reforms, public perception and acceptance of novel technologies in agriculture).

Selected relevant publications

- 1. Jaklič, T., Juvančič, L., Kavčič, S., and Debeljak, M., 2014.Complementarity of socioeconomic and emergy evaluation of agricultural production systems: the case of Slovenian dairy sector. *Ecological economics*, 107, pp. 469-481. ISSN 0921-8009 [Print ed.] http://www.sciencedirect.com/science/article/pii/S0921800914002948, doi: 10.1016/j. ecolecon.2014.09.024.
- Japelj, A., Mavsar, R., Hodges, D.G., Kovač, M., and Juvančič, L., 2016. Latent preferences of residents regarding an urban forest recreation setting in Ljubljana, Slovenia. *Forest Policy and Economics*, 71, pp.71-79, ISSN 1389-9341. [Print ed.] http://dx.doi.org/10.1016/j. forpol.2015.10.003, doi: 10.1016/j.forpol.2015.10.003. [COBISS.SI-ID 4203174]
- 3. Travnikar, T., and Juvančič, L., 2015 A winding road from investment support to the economic growth of farms: evidence from spatial econometric analysis of agricultural holdings in Slovenia. *Bulgarian journal of agricultural science*, 21(1), pp.16-25. ISSN 1310-0351 http://www.agrojournal.org/21/01-02.pdf. [COBISS.SI-ID 3601288]



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