IMPROVING THE RURAL ECONOMY AS A FUNCTION OF SUSTAINABLE DEVELOPMENT IN SERBIA[1]

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Abstract

Improving the rural economy is key to sustainable development in Serbia. There are a number of ways this can be achieved. First of all, by improving production and increasing agricultural productivity, rural areas can generate higher incomes and improve the standard of living of the population. Accordingly, the development of small and medium-sized enterprises in rural areas, which represent a valuable support in improving the rural economy, is gaining importance. In order to realize this, it is necessary to provide adequate education and training to the population in rural areas. However, unfavorable demographic trends are one of the biggest development problems in rural areas of Serbia. The Republic of Serbia is in a long phase of demographic transition, with a number of serious demographic problems. In the coming period, it is expected to acquire the prerequisites for withdrawing as much funds as possible from EU funds intended for sustainable management of natural resources, environmental and climate challenges, as well as rural infrastructure.

Key words: *rural economy, sustainable development, natural resources, training.*

Introduction

Recent decades have seen a growing interest in the long-term sustainability of economic development. Overexploitation of natural resources and pollution are the two basic environmental issues that brought about the emergence

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of the ideas of sustainable development and circular economy. One of the first definitions of sustainable development says that decisions made today should not threaten the prospects of preserving or improving the living standards of the future.

Increasing the competitiveness of the rural economy, sustainable management of rural resources, and the social aspects of rural development are some of the most important questions occupying the attention of the scientific community. While the amount of food that needs to be produced is increasing, the rural workforce (i.e., farmers) is decreasing; a consequence of urbanization. In the period between 1960 and 2015, the rural population decreased from 66.4% to 46.1%. In 2017, the urban population was more than 54% of the overall world population. Almost the entirety of the future world population growth will take place in urban areas, and by 2050 66% of the world's population will be living in cities (Perović et al., 2020, p. 16).

The nature, role and significance of agriculture, including multi-functional agriculture, as well as the rural economy as a whole, has of course changed throughout the years, in accordance with the political processes and the strategy of rural development. The concept of rural development has been in the making for several decades and is permanently being transformed. It started in the early 1960s when rural development was first written about in the documents of the Union. Then, moving on to the 80s, which saw the first usage of the phrase "integrated rural development", as well as the establishment of structural funds for this kind of development. Today, this concept has grown to be a crucial, very ramified, well-integrated, coherent and productive instrument of social development in the Union, described separately in the *Agenda 2000*. The key goals of this agenda are the restoration and preservation of the environment; more even regional development; the development of alternative kinds of production; the spread of organic, safe, and healthy food; the restoration, preservation, and development of rural communities i.e., the affirmation of a new way of life, that can represent a good alternative to the evident drop in the quality of living, or at least some aspects of it, in urban areas.

Rural development policies of the European Union

The evolution of agriculture brought about the rise of sustainable agriculture. It is based on the principles of ecosystem sustainability and coordination between economy and ecology. It was a consequence of recognizing the negative effects

of the green revolution. The emergence of the environmental movement during the 1960s could be considered the precursor to the emergence of the sustainable method of agricultural production. Global conferences were held, whose declarations propagate environmental protection. The governments of the most developed countries limited the rise in pollution through legislation. The environmental principles of organic agriculture say that the exploitation and management of natural resources should not create social and environmental injustice, but that these resources should instead be bequeathed to future generations in a well-preserved and possibly even improved state. The primary goal of agriculture used to be increasing the yield. Over time, the consequences of the conventional method of production started to surface. In the 70s, people started turning to the organic method of production. The ecological disasters and the food contamination crises that took place in the 1990s only served to increase people's concerns over the food that they were using. The rural development policy of the European Union is tied to the *Common Agricultural Policy* – the most significant and oldest EU policy. During fifty years of reforms, this policy has moved from productivity (1970) to competitiveness (1992), to sustainability (2000).

Rural development in line with smart, sustainable, and inclusive growth, was linked to the EU's *Strategy 2020*, which advocated for *green growth* in agriculture and the rural economy. In the *Biodiversity Strategy for 2030*, the emphasis is on the long-term protection of nature and reversing the degradation of ecosystems. The *Common Agricultural Policy* for the period 2021-2027 expresses higher ambition in the field of environmental and climate measures and rests on a fairer deal for farmers while maintaining the special status of agriculture as a backbone of European society. According to the United Nations report for 2021, malnutrition on a global level is unacceptably high and affects all countries. Today, more than three billion people are malnourished, whereas seven billion inhabitants of our planet have a nutritionally poor diet. At the same time, the world population keeps expanding, with a tendency to reach 10 billion people by 2050. When it comes to the sustainable food supply, the goal is to secure access to high-quality and nutrient-rich food in sufficient quantities. Research shows that issues with global food supply are a consequence of conflicts and emergencies, but can also be their cause, and lead to an increase in poverty rates. The food supply system, as the candidate estimates in their paper, is directly impacted by climate and environmental issues. Environmental protection, as an important segment of sustainable development, can contribute to building a better food supply. It is essential to recognize and analyse the environmental issues in Serbia, in order to take necessary measures in a timely fashion and ensure a sustainable food supply in our country.

Circular economy, ecological footprint, and climate change

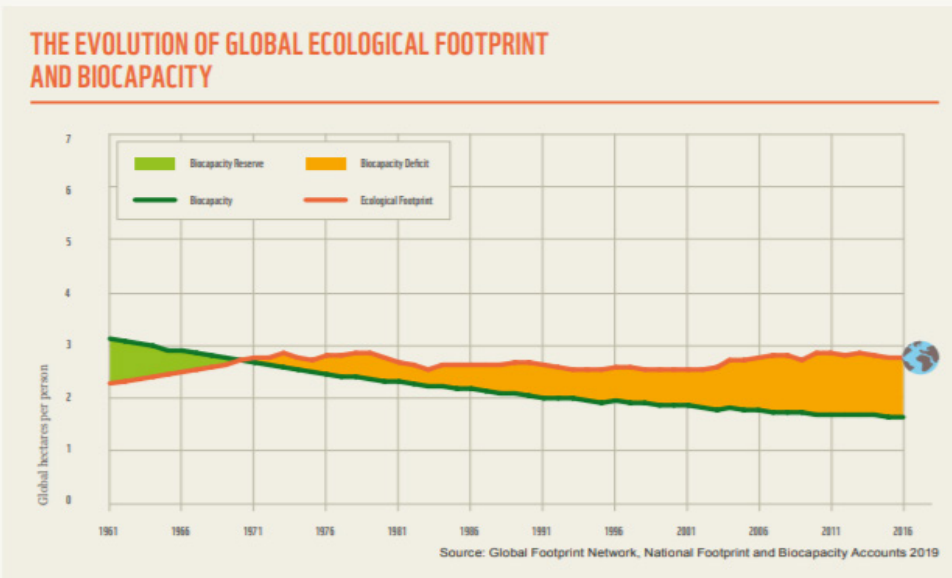
Globally speaking, only 9% of the world economy is circular (Perović et al., 2020). The basic features of the linear economy that require the fastest possible transition to a circular economy are precisely the overexploitation of limited natural resources and the excessive generation of waste that threatens the environment, as well as the burning of fossil fuels (the basic way to generate energy in the linear system), which is the main source of carbon-dioxide – the gas that causes the greenhouse effect.

The agenda for sustainable development (that includes a world without hunger) points to one of the greatest challenges that the world is facing, which is ensuring that the growing nutritional needs caused by the increase in global population are met (it is estimated that the population will increase by 2 billion people by 2050). To feed an additional 2 billion people, it would be necessary to increase food production by 50% (Goddek et al., 2019, p. 5).

Dignified work and economic growth – new circular business models are the main potential sources for growth in the effectiveness and efficiency of resources, waste valorisation, and green jobs. Studies show that implementing a circular economy on a global scale could create multi-trillion-euro opportunities, with an annual net benefit of €1.8 trillion in the EU alone by 2030 (Schroeder, 2018). The European Union has only recently recognized the significance of the circular economy. In 2015, the European Commission adopted a new legal framework i.e., a package of European regulations pertaining to the circular economy, which will help European companies and consumers transition to a circular economy, where resources are used more sustainably. This package seeks to incentivise the transition to a circular economy through investments, in order to modernize and strengthen the European economy, increase its competitiveness, and ensure sustainable economic growth in the future. Additionally, it aims to reduce waste generation, increase the quality of waste disposal, save energy, and minimise resource consumption by 2030. To realize these goals, the European Union continually carries out various actions. For example, the beginning of 2018 saw the adoption of the European Plastics Strategy (a part of the transition to a circular economy) which states that by 2030, the EU market will use only recyclable plastics, will decrease the usage of single-use plastics, and will restrict the intentional usage of microplastics (European Commission, 2018). In addition to the European Union, many countries worldwide have perceived the importance of transitioning to

a circular economy and are carrying out various contributing actions. A good example of that is Japan, which, as early as 2000, enacted eight new laws that cover all areas pertaining to the production of goods. Among them, is the *Basic Act on Establishing a Sound Material-Cycle Society* (Mitrović, 2015). There is only one planet Earth, but by 2050 the world consumption would require the equivalent of 3 Earths. It is projected that the global consumption of materials such as biomass, fossil fuels, metals, and minerals will double in the next forty years. Furthermore, the annual waste generation is projected to increase by 70% by 2050. The extraction and processing of natural resources make up half of the global greenhouse gas emissions and are the cause of more than 90% of biodiversity loss and water stress (European Commission, 2020).

Figure 1. *The evolution of global ecological footprint and biocapacity, 1961-2016.*

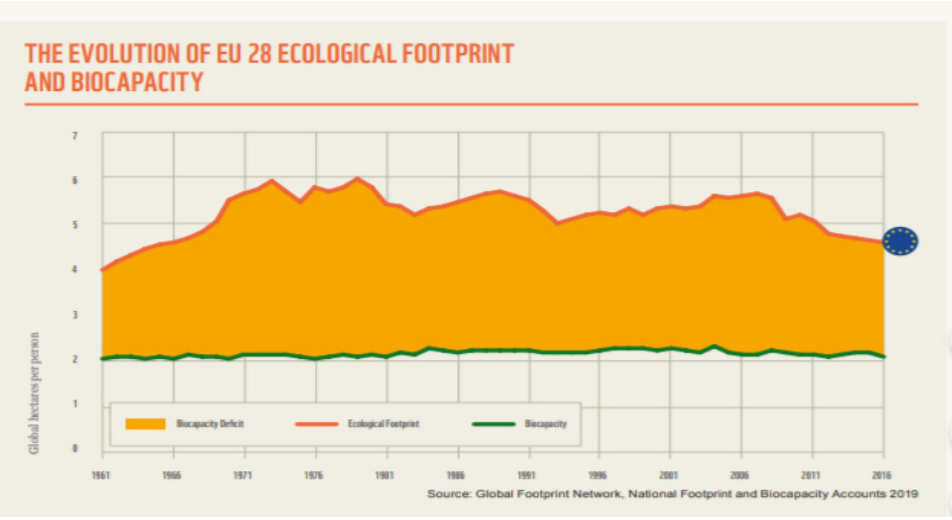


Source: Vandermaesen T., Humphries R., Wackernagel M., Murthy A., Mailhes L., (2019), Living beyond nature's limits, World Wide Fund for Nature, Brussels, Belgium.

Figure 1 shows the evolution of global ecological footprint and biocapacity in the period from 1961 to 2016. Here we can see that up until the early 1970s, our planet was able to provide more than what humanity demanded. Since then, our rate of consumption has increased and is now significantly higher than the Earth's rate of renewal. The increasing ecological footprint and the decreasing biocapacity, have led to the occurrence of a biocapacity deficit. Meeting the current global need for resources would require the equivalent of 1.7 Earths

(Vandermaesen et al., 2019). The primary goal needs to be turning towards a circular economy. If we look at the EU alone this need is even greater, since the EU and its citizens are currently using twice more resources than what the EU's own ecosystems are able to renew. The EU's share in the planet's resources itself is also inequitable – it uses almost 20% of the Earth's biocapacity, but it comprises only 7% of the world population. If everyone consumed natural resources at the rate of the average EU resident, 2.8 planets would be required to meet global needs. This is well beyond the aforementioned world average, which is 1.7 planets. The evolution of the EU ecological footprint and biocapacity is shown in the following figure (Vandermaesen et al., 2019).

Figure 2. *The evolution of EU ecological footprint and biocapacity, 1961-2016.*



*Source***:** Vandermaesen T., Humphries R., Wackernagel M., Murthy A., Mailhes L., (2019), Living beyond nature's limits, World Wide Fund for Nature, Brussels, Belgium.

Unlike the global average data displayed in Figure 1, where we could see the consumption rate rise above the biocapacity rate in the early 1970s, the ecological footprint of the EU has been considerably bigger than its biocapacity since the beginning of the observed period. The total ecological footprint of the EU member states had a steep rise during the 1960s and the 70s, was then relatively constant since the 80s, and eventually started to drop between 2010 and 2016. Simultaneously, the total biocapacity of the region also suffered a mild decline. Such a high ecological footprint leads to a significant ecological deficit because the total demand for ecological goods and services exceeds what European ecosystems can supply. The total ecological footprint of the

EU member states is more than twice the size of their biocapacity (Vandermaesen et al., 2019). Considering this information, a complete transition to a circular economy with efficient use of resources would need to take place in the shortest time possible. The world population is growing and with it, the need for increased food production. Food production is based on resources such as soil, water, fossil energy sources, and nutrients. Increased production means an increased need for these resources. The problem is, most resources don't follow this increase, but rather stay limited in a certain way. Fossil fuels, for example, are a non-renewable resource, while the soil, although renewable, requires a very long period of regeneration.

Competitiveness of rural economy in Serbia

Innovations, computer literacy, and social and ecological awareness are some of the most significant sustainable sources for growth and development. The issue of inheritance, the transfer of skills and knowledge, access to the financial market and access to land are some of the most common problems faced by young farmers worldwide. Adverse demographic trends are one of the biggest development problems in rural areas in Serbia. The Republic of Serbia is currently in a long stage of demographic transition, with a multitude of serious demographic issues. According to the estimates of the Statistical Office of the Republic of Serbia, the population of our country has been continuously declining since the beginning of the current century. Besides the aforementioned demographic and migration issues faced by our country, rural areas are impacted by numerous other socio-economic problems, such as poverty and social exclusion, regional differences and inequality, the lack of local initiative and competitiveness, and loss of cultural identity. The challenges and obstacles to the development of the Serbian agrarian sector, and our rural areas in general, are serious and deep. It is expected that, in the upcoming period, Serbia will become eligible to draw heavily on the EU funds intended for sustainable management of natural resources, environmental and climate challenges, and rural infrastructure. There are pilot projects planned in Serbia, supported by international donors, which will carry out agroecological measures in pilot regions. Rural development, as a modern way of achieving sustainability, treats evenly economic activities, as well as other aspects of social development – the environmental, sociocultural, political and institutional ones. The cross-border cooperation of Serbia with the countries in the region is primarily carried out in rural areas, where the project approach to

solving problems of cross-border territories is financed both by the European Union and from national sources. Cross-border cooperation offers some solutions. When considering the financing of cross-border cooperation, the emphasis should be on the priorities related to agrarian matters and the needs of the agricultural population. One of the goals of this project is the creation of infrastructure necessary for the long-term development of rural areas.

Apart from investing in equipment and machinery, one of the key investments in increasing the competitiveness of Serbian agriculture is the support for agricultural extension services. It can be further intensified and expanded through a system of contracts with the experts of the agricultural extension services, which would assist farmers in the modernization of their production process, to make it more productive and more profitable. Via public competition, the Ministry of Agriculture will select the institutions that are eligible to provide the required services, which will include: 1) A programme of tracking the selected agricultural holdings; 2) A programme of tracking the sowing, production process, and harvest of crops; 3) The collection and distribution of market-related information for the Agricultural Market Information System; 4) Advisory work realized through organizing seminars, field days, demonstrations of modern technologies and modern varieties/breeds, visitations to producers as well as other advisory work directed at increasing productivity; 5) Special projects for: education of trainers in extension services; education of advisors and farmers, providing knowledge and skills required by the modern agricultural production, the diversified rural economy, and farm production; education in marketing and farm financial management; introducing modern methods of farm production and management; rural village development; environmental protection etc. The competitiveness of the Serbian economy has only recently become the subject of systematic consideration, and that by international institutions. This is especially true for the agriculture sector. An analysis of the competitiveness of Serbian agriculture has never been done before, and what is particularly noticeable here is the passivity and the lack of interest by domestic institutions.

The methodological framework for the analysis of agricultural competitiveness is based on the Porter model. According to this model, it is the characteristics of the operating environment of a business, that are essential to its competitiveness. These are (1) general conditions; (2) business strategy, structures, and interfirm rivalry; (3) terms of demand; (4) related and supporting industries. A special fifth (5) factor is the state i.e., the government, which through its policies and measures affects all four previously mentioned factors. Finally, unplanned

events such as natural disasters and wars are also a factor of competitiveness. The latter ones act indiscriminately and affect all actors in a certain territory.

The characteristics of the Serbian agrarian sector currently are small holdings, obsolete varieties, low yield, outdated households, poor communication between the Ministry of Agriculture and the producers, lack of long-term plans, and especially the lack of standards. Through the emergence of vertical integration in the area of food production and distribution, a system is created on fresh foundations. That way, the competition between integrated systems too, is becoming more and more pronounced. The first step would be to group smaller and larger holdings into cooperatives, on a regional level. When it comes to ways of acquiring new technologies, it is said that licensing is the most common one in Serbia.

According to a survey, it is foreign direct investments that significantly contribute to the arrival of new technology. Since the share of technology in the export of agricultural products is low, it can be concluded that new technology arrived in some other sectors via FDI, but not the agri-food sector. The role of the government was positively evaluated since the respondents think that its decisions regarding the purchase of technology are mostly driven by the technology itself and the desire to stimulate innovation, and less by the price of the said technology. This is an encouraging finding that points to the conclusion that there is a strategic orientation in government decisions, after all.

Conclusions

The modern concept of sustainable development links economic growth, social inclusion, and environmental protection into a well-rounded image of a developing modern world. Food security is directly linked to climate change and its biophysical impacts on agricultural holdings as well as on uncultivated plants and vegetation and the animal world. The focus of rural development is on expanding non-farming activities, by evaluating various local resources and potentials for development based on the appropriate institutional and infrastructural capacities. Rural development rests on the knowledge economy, diversification, and multi-functionality, with its goal being to bolster competitiveness and increase comparative advantages.

The supporters of the circular economy think that it offers Europe a chance to increase resource productivity, employment rate, growth, competitiveness, and innovation, as well as to decrease resource dependence and waste of re-

sources. Overcoming the relative underdevelopment of rural areas in the Republic of Serbia is possible by way of identifying both internal and external challenges of rural development, and taking proactive action. The role of the government in relation to the development of new technologies is to stimulate research and development projects, but also to encourage the application of modern technologies in the production processes. These measures are especially important for the less-developed regions and are not contrary to the provisions of the WTO. Furthermore, the EU assists with the development of less-developed regions through various measures and their experiences could be applicable in Serbia. When it comes to increasing exports, a significant role belongs to the *Development Agency of Serbia*.

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