

## **ECONOMIC CONTEXT OF ORGANIC AGRICULTURE AND FARMS IN SERBIA-CASE STUDY**

**PhD Slobodan Nešković**

**University Business Academy in Novi Sad**

**Abstract:** The economic context of organic agricultural holdings and conglomerates includes several parameters and postulates of importance for economic operators and the country. Organic agriculture has many advantages over conventional especially in the area of human health which affirms the commitment of agricultural production. Organic agriculture is associated with the multifunctional character of agriculture and to the preservation of villages, traditions, folk culture, traditional crafts, rural tourism and special type ie. eco-tourism. Consumers underdeveloped awareness, the underdeveloped market, low demand and low standard of living, high prices of control and certification, lack of use of pesticides, are just some of the many problems faced by manufacturers in this field of agriculture. Serbia has significant resources for development of agricultural production, which represents the country's export opportunity.

**Key words:** Economy, organic agriculture, farms, food, Serbia;

### **METHODS AND RESULTS**

The main problem of this study is to analyze the importance of organic production, both in the modern world and in our country. The protection and enforcement of innovation as indispensable factors and sources of the creation of agricultural development is a prerequisite of competitive advantage in modern organic agriculture.

The subject of this research is conjunctive relationship between organic production and overall national economic development and competitive advantages in the modern world. Competitive advantage, and consequently agricultural development does not exist outside the framework of globalized market, at the same time closely associated with intellectual capital and innovation process and their strategic management. Given the importance of agriculture to the economic development of the country aim of this research is the description of the direct connections and conditioning of organic production and quality management in sector of agriculture in Serbia.

The purpose of this paper is to highlight the importance of the development of organic farming, production and innovation in organic farming are there in the realization of the development of agriculture and hence competitiveness in the globalized market conditions.

### **INTRODUCTION**

Agricultural area is an extremely important natural resource for agricultural production and people's life. Research has shown steady growth in demand for organic food and beverages in the

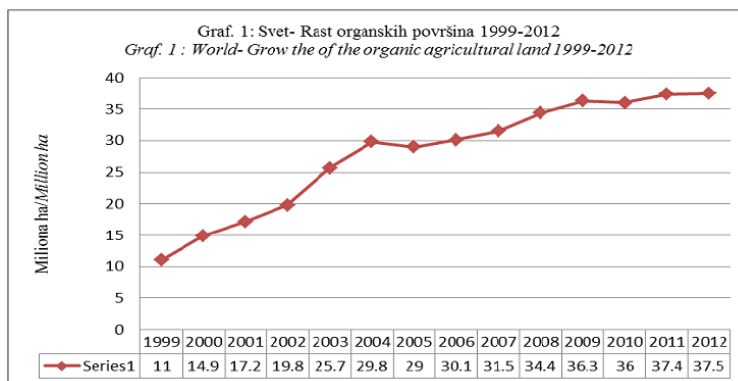
world market. The goal of organic agriculture is the production of high quality and safe food in an environmentally sustainable manner. Such production improves the health and productivity of interdependent communities - people, animals, plants and soil. The advantages of organic production compared to conventional are numerous, and the data of the competent authorities show constant growth of organic production and interest in this area. Serbia is also more present in this type of production due to available land that is not contaminated. The organic method of production has great economic importance and may contribute to the development of rural areas, and thus the entire agriculture.

## 1. ECONOMIC CONTEXT OF ORGANIC AGRICULTURE IN SERBIA

According to the definition of the International Federation of Organic Agriculture Movements (IFOAM), organic agriculture is a holistic production system that promotes the natural activity in the soil, maintains the health of ecological systems and humans, relies on ecological processes, biodiversity and natural cycles, taking into account local conditions, to the exclusion of inputs with harmful effects. Organic production methods relating to the use of natural substances and processes in the production and eliminate or limit the use of synthesized funds.<sup>1</sup>

Size of land area under organic production in the world is constantly growing in the period from 1999 - 2012 and has increased more than threefold. The value of organic products in the world market reached a value of about 50 billion euros, and in 2000. amounted to 13.6 billion euros.<sup>2</sup>

*Graphic 1. Growth of organic area in world for the period 1999 – 2012.*



*Source: FiBL –IFOAM (2014)*

In Serbia, the organic area increased approximately fourteen times compared to 2008, when began to keep a record of organic production in the Ministry of Agriculture and Environmental Protection. In parallel with the surface, increasing the value of organic products, in the last fifteen years has increased more than three times. In the EU, 70% of the value of agricultural production

<sup>1</sup> Neskovic, S., Ecological management, Belgrade, College PEP, 2010, pp. 15.

<sup>2</sup> National Action Plan for the development of organic production for the period 2014 - 2019, Ministry of Agriculture and Environment of Republic of Serbia, pp 6-7.

makes animal production, while 30% comes from the structure of plant production. For us the situation is reversed, 30% is animal production, a 70% value makes the vegetable production. In Gross National Product agricultural production accounts for about 11.9% of which about 7.7% were agriculture, forestry and fisheries and the food industry 3.3%. The most important agricultural products of Serbia, according to data of the Serbian Chamber of Commerce are: corn, wheat, sunflower, sugar beet, soya beans, potatoes, apples, plums, grapes, and also pork, beef and milk.

In Serbia there are two basic types of organic producers:

- independent, who have a direct contract with one of the control organizations and
- subcontractors, whose production is subject to group of producers, so that the the entire production is intended for export markets, while they have secured the support of: inputs, training, certification costs covered, where the holder of the certificate is company and not the manufacturer.<sup>3</sup>

In 2014, organic production in Serbia is realized on a total area of 9,430 ha, if you include the products that are already certified or are in the process of obtaining certification. In 2013, organic farming was taking place on a total area of 8,227 ha. The increase in area in the amount of 14.6% compared to 2013, confirms the interest of producers for this type of agricultural production. According to the Ministry of Agriculture and Environment, of the total number of organic producers in Serbia is 1,867, of which 292 are certified for organic production, while the number of subcontractors is 1,575. In 2014, the most common is organic grain production, in the amount of 35%, followed by fruit production in the amount of 28%, industrial and forage crops in the amount of 15%, vegetables in the amount of 2%, medicinal and aromatic plants in the amount 1%, and other crop production in the amount of 4%. Data on organic production by region show that in Vojvodina most common this type of production, in the amount of 66%, followed by the region of Southern and Eastern Serbia, in which the organic production represented 23% of arable land, region of Šumadija and Western Serbia with 11% .

*Table 1. Representation of the area under organic production in the regions in Serbia in 2014*

REGIONI	OBRADIVA POVRŠINA	UČEŠĆE(%)
Beograd	18,9	0
Šumadija i zapadna Srbija	1.018,3	11
Južna i istočna Srbija	2.151,7	23
Vojvodina	6.241,2	66

*Source: Simić I., Organic agriculture - unused potential of Republic of Serbia, 2015, p. 11.*

<sup>3</sup> Kalentić M., Stefanović E., Simić I., Maerz U., Organska poljoprivreda u Srbiji, Beograd: Nacionalno udruženje za razvoj organske proizvodnje Serbia organica, 2014., p. 12.

Representation of products with organic certification in the Serbian market is not enough, whether it is on the supply of fresh and processed products, which is supported by the fact of more and more frequent imports of these products into our market.<sup>4</sup> Since there is often a lack of storage space, the products are only available during the peak season, when manufacturers flood the market.<sup>5</sup>

For the most part the production is aimed at export, in 2013 the total amount of exported organic products amounted to 7,101,301.24 kg (2012: 1,561,672.50 kg), and the realized export was in the valuation code of aprox. 10.090.801 euros. The highest value is achieved exports of frozen vegetables - raspberries, blackberries, cherries, followed by dried fruits - raspberries, blackberries, cherries and strawberries, fresh fruit - apples and plums, followed by fruit juices and fruit juices concentrates- blueberries and apples and dried herbs. From Serbia mainly exported products are those with a low degree of processing, thus have less added value.<sup>6</sup> Marketing activities aimed at branding organic products and their promotion abroad are not represented sufficiently. Support should be given to exporters by strengthening, deepening and expansion of their business connections and relationships as well as support participation in fairs.<sup>7</sup>

## **2. THE LEGAL NAD INSTITUTIONAL FRAMEWORK OF ORGANIC AGRICULTURE**

The first law that regulated the production of agricultural and other products by methods of organic production was adopted in 2000. In 2006 a new law was adopted and at the end of the same year he established a national sign, which marked certified organic products. Because of the new Regulation of the European Union in 2007, there was a need to harmonize the legal framework with new regulations, and in may 2010 Government adopted a new law on organic production, which is still topical.<sup>8</sup> In the future we can expect the adoption of the new law, given that in 2012 and 2013, work was done on the amendments to further harmonization with the European Union, which has since changed. The provisions of the law apply to primary agricultural products, processed agricultural products used in food, feed, seed and planting material and yeasts that are used for human and animal nutrition.<sup>9</sup>

---

<sup>4</sup> Nešković, S., Jovanović, Ž., Ecological Paradigm within the Context of the International Policy – Development Study, Balkan Journal of Philosophy, Bulgarian Academy of Sciences, Vol. 8, Issue 1, 2016, p. 71.

<sup>5</sup> Berenji J., Milenković S., Kalentić M., Stefanović E., Nacionalna istraživačka agenda za sektor organske proizvodnje, Beograd, 2013., str. 25.

<sup>6</sup> Nešković, S., Saobraćaj i ekologija u konceptu održivog urbanog razvoja, Travnik: Internacionalni univerzitet Travnik, BiH, 2014, str. 31.

<sup>7</sup> National Action Plan for the development of organic production for the period 2014 - 2019, Ministry of Agriculture and Environment, pp 27-29.

<sup>8</sup> Nešković, S., Jovanović, Ž., Ecological Paradigm within the Context of the International Policy – Development Study, Balkan Journal of Philosophy, Bulgarian Academy of Sciences, Vol. 8, Issue 1, 2016, p. 74-75.

<sup>9</sup> Nešković, S., Ecological Management, Belgrade, College PEP, 2010, pp. 53.

In the Ministry of Agriculture and Environmental Protection operates a special working group - Expert Council on organic production, which gives expert opinions and discuss professional issues in the field of organic production. Aside from the subsidies for agricultural activities, the state needs to invest in measures that will improve the quality of life of the rural population. Investments in infrastructure, education of the local population, promotion of traditional customs and traditional crafts and tourism should be part of a national action plan in the region.<sup>10</sup>

### 3. ECONOMIC CONTEXT OF HOUSEHOLDS IN SERBIA

According to the Regulations on Registration of agricultural holdings from 2013, the farm area is at least 0.5 hectares of agricultural land in the territory of the Republic of Serbia, where agricultural production is performed by a legal person or individual. The total number of farms in Serbia, according to data from Chamber of Commerce is 631,552, and the number of farms and permanent staff amounts to 1,442,628. According to the agricultural census in 2012, prevailing small farms with an average area of about 5.4 hectares of agricultural production is mainly done in the traditional way, without the use of modern machinery and large amounts of pesticides and fertilizers. This farm is easily converted to organic production.<sup>11</sup>

Results of agricultural census in 2012 showed the following:

- The total number of registered agricultural land in 2011/2012. that was used is 89% or 3,437.423 ha. Of the total land use, 30% of the land is leased;
- Average farm size is 5.4 ha;
- Every household has an average of six plots, each of which is around 0.98 ha;
- In 2012, irrigation had used 3% of farms;
- 95% of the total number of tractors are older than 10 years;
- The average farmer is 59 years old.

The future of these small farmers in organic production is an alternative to intensive agriculture.<sup>12</sup> According to data of the Serbian Chamber of Commerce, the total area of agricultural land is 3,861,477 hectares, of which land used is 64.3% of the forest cover consists of 19.1%, 7.9% of unused land and other land 8.7%. As far as land use, participate in the structure: arable land and gardens - 73.1%, meadows and pastures - 20.7%, fruit orchards - 4.8%, vineyards - 0.6%, yards - 0.7% and others permanent planted in the amount of 0.1%. For arable land and gardens, the largest area under cereals (68%) dominated the area under maize (39%) and wheat (24%). Fruit, mostly plums are grown on 45% and apples at 15% of the area under fruit.

---

<sup>10</sup> FAO Regional Office for Europe and Central Asia Coordination Office in Serbia, Belgrade, 2014, p. 53.

<sup>11</sup> National Action Plan for the development of organic production for the period 2014 - 2019, Ministry of Agriculture and Environment, pp 6-7.

<sup>12</sup> FAO Regional Office for Europe and Central Asia Coordination Office in Serbia, Belgrade, 2014, p. 7.

Organic agricultural products are mainly sold to wholesalers and processing companies, with which almost 70% of primary producers conclude contracts prior to the start of the season. Direct sales, for example, green markets and in retail stores practice only 20% of farmers. Because of this system, increase in price they obtain for their organic produce is very moderate (average 10-20%) and confirmed that added value is not generated at farm level. In the sector of present and new tendencies, namely the big supermarket chains have upped their offer of organic products. A large number of these products are imported, which confirms the fact that the development of organic production for the domestic market is not at sufficient level.<sup>13</sup>

According to statistical data and analysis, the following findings are:

- agriculture in Serbia is traditional and extensive (low-productive, highly oscillatory and highly dependent on climatic factors). Therefore, low marketability and low product specialization are present in agricultural production;
- in domestic agriculture dominate the so-called small and medium-sized farms in terms of area and economic power of households. Their development significantly limits the underdeveloped agricultural markets and lack of vertical integration in the production chain of agricultural products;
- despite all of the foregoing, these farms are of great importance in the local market of goods, in terms of food production, as well as from the standpoint of resources and rural environment;
- it is necessary to initiate measures aimed at their economic empowerment and building sustainable competitive advantages in both domestic and foreign markets.<sup>14</sup>

## CONCLUSION

Given that the organic products occupy only 1% share of global food market, and that demand is growing steadily despite the global financial crisis, improvement and investment in Serbia in this type of production has the ability to increase exports of organic products. Export of organic food is at much lower level than the potential that Serbia has in this field of production. Although the world's land area under organic production has been constantly growing, there is an unmet demand when it comes to fruits, cereals and fodder. Serbian government should take advantage of these shortcomings. Organic products have higher market value, a good physical, chemical and biological properties of soils which in most cases is not contaminated. Favorable climatic conditions provide an incentive and opportunity for the successful development of organic production. This would solve the existential problem of a significant part of the rural population, and also significantly improve human health and environmental protection.<sup>15</sup>

---

<sup>13</sup> Berenji J., Milenković S., Kalentić M., Stefanović E., Nacionalna istraživačka agenda za sektor organske proizvodnje, Beograd, 2013., p. 22

<sup>14</sup> [http://www.kombeg.org.rs/aktivnosti/zadruzni\\_savez/Detaljnije.aspx?veza=14627](http://www.kombeg.org.rs/aktivnosti/zadruzni_savez/Detaljnije.aspx?veza=14627) (11.05.2016.)

<sup>15</sup> Nešković, S., Jovanović, Ž., Ecological Paradigm within the Context of the International Policy – Development Study, Balkan Journal of Philosophy, Bulgarian Academy of Sciences, Vol. 8, Issue 1, 2016, p. 75.

## LITERATURE

1. Neskovic, S., Ecological Management, Belgrade, College PEP, 2010.
2. National Action Plan for the development of organic production for the period 2014 - 2019, Ministry of Agriculture and Environment of Republic of Serbia, 2014.
3. Kalentić M., Stefanović E., Simić I., Maerz U., Organska poljoprivreda u Srbiji, Beograd: Nacionalno udruženje za razvoj organske proizvodnje Serbia organica, 2014.
4. Nešković, S., Jovanović, Ž., Ecological Paradigm within the Context of the International Policy – Development Study, Balkan Journal of Philosophy, Bulgarian Academy of Sciences, Vol. 8, Issue 1, 2016.
5. Berenji J., Milenković S., Kalentić M., Stefanović E., Nacionalna istraživačka agenda za sektor organske proizvodnje, Beograd, 2013.
6. Nešković, S., Saobraćaj i ekologija u konceptu održivog urbanog razvoja, Travnik: Internacionalni univerzitet Travnik, BiH, 2014.
7. Neskovic, S., Ecological management, Belgrade, College PEP, 2010.
8. FAO Regional Office for Europe and Central Asia Coordination Office in Serbia, Belgrade, 2014.
9. [http://www.kombeg.org.rs/aktivnosti/zadruzni\\_savez/Detaljnije.aspx?veza=14627](http://www.kombeg.org.rs/aktivnosti/zadruzni_savez/Detaljnije.aspx?veza=14627)