



Organic Food Production as a Development Opportunity for Serbia

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Abstract Serbia doesn't have many competitive advantages in relation to the competition it faces. The growing demand for food has led to the fact that agricultural production relies mostly on the use of chemicals, which endanger human health and disrupt nature balance, and all in order to achieve a higher yield and profit. However, in the process of globalization, the only thing Serbia could rely on, except trained staff, are the natural resources. Favorable climate, large areas of arable land and forests, a healthy environment are the main prerequisites for the development of organic production (OP) in Serbia. This paper aims at giving an overview of the current situation of the Serbian organic sector especially potential, animal and crop production, governance, legal framework and market. Some solutions to overcome the main barriers to OP development are discussed. This paper is based on a secondary data review and exploratory semi-structured interviews - dealing mainly with reasons for converting to organic; marketing channels; problems; impacts; access to agricultural extension - conducted in summer 2013 with 40 organic producers randomly chosen from cities/municipalities all over Serbia. Statistical methods, SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis, induction and deduction, as well as the technique of comparative analysis were used. The results indicate the advantages which increase in the organic production could bring to Serbia, such as economic growth, increased exports, reduced trade deficit, sustainable natural resources management and rural development. For allowing OP to express all its potential, domestic market should be further developed, legal framework and governance enhanced and institutional and financial support secured. Due to high prices of organic food in the world market organic production can be a key generator of economic growth and socio-economic development in Serbia, especially in rural areas.

Keywords organic production, economic development, Serbia

INTRODUCTION

In developed countries, where modern agriculture with the aggressive use of all available chemicals has led to degradation of the quality of air, water, land, is almost impossible to establish organic production, resulting with a huge lack of organic products. Therefore, the developing countries, where the agricultural system is still preserved, have a chance to increase their exports through organic products. In the European Union (EU), sales of organic products have tripled in the period 2001 to 2008 (FiBL, 2010). The largest European market for organic products is in Germany. It is estimated that the share of these products in the food market will continue to grow in the coming years.

Serbia has 5.11 million hectares of agricultural (60% of the territory) and 4.1 million hectares of arable land (Chamber of Commerce and Industry of Serbia, 2013). Serbian agriculture is facing many problems, such as the small size of the private households, unorganized farmers, reduced state subsidies, inability to achieve sales, etc. Even so, Serbia has conditions and outstanding opportunity in the production of organic food.

The fact that over 80% of land in Serbia is in uncontaminated soil, that there are areas that are not still exploited, which could be used for organic production (OP) without major investments, as well as a high percentage of rural population, can be pointed out as the important prerequisites for the successful development of the OP in Serbia (Ćurkovic, 2013). Inglorious facts about the low level of industrial production in Serbia, gives to this country, in terms of the development of organic agriculture, an incomparable advantage in relation to the EU, due to the lower concentrations of pollutants in the environment. Organic agriculture is focused on the future and improvement of the environment and human health; therefore the benefits of investing in it have timeless character.

Today's state of Serbian agriculture, its potentials and limitations, still have the same trend - that in agriculture are used less inputs than are really needed - and therefore the results are lower than desired. The last 10 years, agriculture is going through a transition phase, and the entire Serbian economy as well, which involved privatization process that has been implemented without adequate and clearly defined measures of agricultural development policy. Currently the only competitive advantages of Serbia are the natural resources, low labor costs and low land prices (Tomic & Tomic, 2011).

However, available resources (favorable natural and climatic conditions) are not sufficient for the survival of agriculture and sustainable rural development. It is necessary to support the development of agricultural and rural policy with adequate and intensive budget allocation. Organic farming achieves more stable and better yields (Kilrcher, 2007). The market of food products has greater earning power through higher selling prices, and thus provides greater economic benefits in the form of profit and long-term economic benefits.

The most important organic agro-food products in Serbia are wild or cultivated berries, frozen and dried plums, sour cherries, organic certified jams, sweets, apple concentrate, vinegar and juices, and salted and dried wild mushrooms. The main regions for organic fruit production are Central and South Serbia.

Certified organic vegetable production is relatively small. While fresh, frozen and preserved vegetables, especially ground red peppers, are mainly exported, some fresh vegetables find their way to domestic market as well. In Vojvodina, organic cereals are well developed. There are few examples of organically certified livestock production.

The Serbian market is still largely dominated by conventionally produced products. There is a slight growth of demand for organic products, but still consumers are skeptical and confused, since there have been many products on the market with labels for "healthy food" like natural, bio, eco, organic, but none of them is certified organic product. Market channels of the organic products in Serbia are on-farm selling, farmers green markets, large supermarket chains and specialized shops of healthy food.

This paper aims at giving an overview of the current situation of organic farming (legal framework, production, market) in Serbia and highlighting its potential as a development opportunity for Serbian rural areas.

METHODOLOGY

The work is based on a secondary data review and exploratory semi-structured interviews. The main secondary data sources were ministries (Ministry of Agriculture), professional organizations (Chamber of Commerce and Industry of Serbia, Serbia Organica association), universities (Belgrade, Novi Sad), the International Federation of Organic Agriculture Movements (IFOAM), Research Institute of Organic Agriculture (FiBL), the Mediterranean Organic Agriculture Network (MOAN), United States Department of Agriculture (USDA), etc.

Semi-structured interviews (SSI) were conducted in summer 2013 with 40 organic producers randomly chosen from several cities/municipalities all over Serbia: Sombor, Kraljevo, Novi Sad, Negotin, Kovacica, Vrsac, Pozarevac, Cacak, Subotica, Zrenjanin, Soko Banja, Bojnik, Barajevo, Bela Crkva, Pecinci, Petrovac na Mlavi, Kursumlija, Becej, Sremski Karlovci, Kanjiza, Vrbas, Zagubica, Srbobran, Krusevac, Kikinda, Alibuna and Zabalj. The checklist prepared for SSI included 24 questions dealing mainly with: reasons for converting to organic farming; organic animal and crop production as well as beekeeping; main marketing channels; problems and constraints; main economic, social and environmental impacts of organic agriculture; access to agricultural extension and subsidies; main sources of information about organic agriculture; involvement in organic agriculture projects and initiatives; social capital of organic producers; collaboration and contact with other institutions and actors; etc. Some solutions and recommendations to overcome the main barriers to organic production development are discussed.

The average age of the interviewed organic operators is 48.3 (age range: 29-73). In the total number of interviewees, 75% are men and 25% are women. Among the interviewees there are no illiterate, 80% have secondary education, while 20% of them have high education. The surveyed rural households generate income mainly through farming, pensions and salaries from the public sector. Farm surface ranges from less than one to about 2000 hectares. Land use is dominated by arable crops mainly cereals and vegetables.

It should be pointed out that the lack of a central database system makes it very hard to give precise figures about the size of organic production in Serbia.

RESULTS AND DISCUSSION

For the last ten years, production and processing of organic products in Serbia became more popular and economically more important, considering the first steps made in OP in late 70's (GAIN, 2009). According to the MOAN, with a view to further development of organic farming in the Mediterranean countries, Serbia is at the very top as the country with the largest number of hectares intended for organic production, immediately after Italy. As Serbia is full of regions that are practically "untouched nature", there is a chance for these areas to be immediately engaged in organic farming without wasting time for conversion (which is a big advantage in terms of cost saving and profit) (MAIB, 2008).

The Serbian Law on Organic production and a number of regulations control the production of agricultural products and other methods of organic production and processing, storage, transportation, marking, labeling and sale of these products, their certification and recertification, as well as other important issues in this area (Republic of Serbia, 2010). The goal is to obtain a product with documented production procedure, contributing to sustainable socio-economic rural development, consumer protection, sustainable natural resources management, soil fertility, etc. Nevertheless, the process of harmonization of Serbian legislation with the EU *acquis* in the field of organic farming is still pending. For this reason, there is an ongoing initiative for amending the existing Law from 2010.

An increase of about 30% of plant area with organic production as well as a complete growth of organic livestock production has been recorded in Serbia from 2011 to 2012. Arable land used for organic farming occupies an area of over 11,000 hectares, dominated by fruit (46.36%) and crops (41.31%), with the constant growth in production of grains and oilseeds, meadows and pastures (7.57%), while the vegetables are grown on 4.77% of organic area. Most of these products are exported, especially in the EU, as the domestic market is underdeveloped due to lack of purchasing power. Legislation for organic food harmonized with EU regulations is the basis for such food production and its export, but as itself is not enough. State support in the placement of goods to foreign markets and to small producers of organic food is essential. If considered that organic food is 30-50% more expensive than conventional, and the standard of living in Serbia is very low, it can be concluded that the only secure sales that can be provided to organic food producers, are sales across national borders.

Although in recent years the production of organic food is gaining importance in Serbia, the number of people engaged in this branch of agriculture is extremely low. In this area it is necessary to possess the adequate knowledge and skills to deal with the OP, as well as the knowledge of applying fairly strict standards and controls. The problems faced by the OP in Serbia are primarily low social and political awareness of the importance of organic agriculture to life and health of the nation, as well as the economic benefits of this type of agriculture. Due to the lack of adequate, understandable and easily accessible literature, actors involved in organic agriculture are poorly informed. High cost of certification, lack of state support to organic agriculture, a declining budget for agriculture, underdeveloped markets and sales channels are the main difficulties faced by farmers entering the sector of organic production.

With less than 0.01% of the products consumed in Serbia being organic, compared with 3-4% within Europe, growth is inevitable (GAIN, 2009). Almost 90% of organic products in Serbia are aimed at the export market (e.g. EU, U.S., Japan). As the demand on the world market increases, it is expected that in the future period the production in Serbia will find more customers - both abroad and in the country - thus fostering economic strength and competitiveness of the Serbian economy. As the organic farming does not use harmful synthetic chemical substances in the form of pesticides, requires more labor force participation, i.e. this type of production can be very supportive in reducing unemployment in rural areas. In Serbia there is still a trend of migration of population from rural to urban areas, so that rural areas become economically depressed and devastated. The potential that has organic farming and its benefits can significantly improve employment and thereby reduce the gap in living standards between the big cities and rural areas, as well as keep population growth in agricultural Serbian areas (Berber et al., 2011).

The exploratory field survey showed that the main reasons for converting to organic farming are: economic profit; environmental protection; personal satisfaction and healthy production. Most of the interviewees consider that organic agriculture has generated multiple economic benefits to their rural households and communities thanks to higher prices (premium prices) and income, lower production costs and local economy revitalization. The main social impacts of organic agriculture are the level of trust and solidarity achieved within society, physical and psychological satisfaction, and social capital strengthening. Meanwhile, the main environmental impacts are reduced soil and water pollution and the conservation of biodiversity (e.g. local and traditional varieties).

All the interviewed organic operators were crop and animal producers. However, some of them deal also with other activities such as processing (67.5%), retail sale (17.5%) or beekeeping (7.5%). The field survey showed that a wide range of crops is grown organically in Serbia. The most common organically grown crops are: onion, pepper, carrot, potato, tomato, rye, maize, buckwheat and barley. As for livestock, the most important reared species are bovines, goats, sheep and poultry. The interviewed organic operators have about 46 beehives.

The main marketing channels used by the interviewed organic producers are on-farm sale and farmers' markets. Also, supermarkets, exhibitions and fairs are relevant marketing channels.

Most of the interviewed organic operators (82.5%) think that the decision to convert to organic was appropriate as production of healthy food is a good way to increase household income and to make agricultural production more sustainable. The main problems faced by the interviewed

organic operators are difficulties in finding organically allowed inputs in the market, high certification costs and absence of support. They mentioned also other constraints such as high prices of organically allowed inputs, marketing/sale difficulty, very rigid regulation, lack of training on organic farming.

According to the organic operators, institutions that should make more efforts to solve the problems they face are: the State, municipalities, cooperatives and the extension service. It is clear from the provided answers that a joint effort of many institutions is necessary.

Half of the interviewed organic operators declared that they received subsidies and 45% didn't receive them. The main subsidies and incentives needed by the interviewed Serbian organic operators are for certification, input procurement, equipment and more financial resources meaning easier access to funds and loans with low interest rates. However, additional requests concern support for organic farms mechanization and for storage, processing and irrigation facilities.

As for the social capital of organic operators, 70% of the interviewees are members of agricultural and/or rural associations and cooperatives. Some organic producers are also members of other participatory and civil society groups or organizations. Only 10% of the interviewees do not have any ongoing collaboration with other institutions. The remaining, 90%, deal with the following institutions: municipalities, Ministry of Agriculture; cooperatives (*e.g.* Ekoland herbs, Spice Germany), research institutes (*e.g.* Veterinary Institute of Serbia, Institute of Field and Vegetable Crops, Institute for Nature Conservation of Serbia, SP Laboratory Becej), certification bodies, extension service, etc.

The interviewees get information about organic agriculture through magazines and newspapers mostly and via Internet; a significant number of organic operators are informed through courses and conferences, trips and visits to other organic farms as well as through TV and radio. More than a half of the interviewed organic producers (60%) has contact with the agricultural extension staff and uses services provided by them. Used extension services and information are related to fruit and vegetable growing technologies, subsidy possibilities, soil fertility management and certification. According to MAIB (2008), most organic producers and processors in the Western Balkan Countries (WBC) complain about the lack of adequate advisory services which are crucial for the well-functioning of the whole organic supply chain. The creation and improvement of supporting structures and services for production and market development is crucial.

Around 70% of interviewees do not know anything about organic agriculture programs and projects, but would like to know more, while only 20% of them have been involved in previous ones. According to the National Association for Organic Production - Serbia Organica (2013), with the aim of further promoting and reaching a higher share of organic food at the greenmarkets, "Serbia Organica" launched in July 2011 - in cooperation with the Public Utility Company "City Markets" - the project "Organic Food Greenmarket", currently implemented on one of the Belgrade greenmarkets. Stalls with organic products are present at other Belgrade greenmarkets as well. In view of the success of the project and interest shown by both buyers and sellers, organic food stalls should be part of permanent offer at the city greenmarkets.

EU Member States in their own significant production still show the need for imports of organic products. Serbia can take advantage of this opportunity and provide the foreign market with important amounts of organic products. Production and economic impact of agriculture in Serbia are not at the level of the opportunities provided by rich natural resources and the country lags behind competitor countries in the region. The world market for organic food is ruled by the same economic principles as well as in other sectors. Demand is growing much faster than domestic supply, and it is this trend that can lead one economy to transform its potential of organic food production into export opportunities. With this possibility and opportunity Serbia could easily strengthen export and domestic market as well. The increase in exports is one of the most important prerequisites for increasing economic activity in every country, especially in small developing countries. The increase in exports contributes to macroeconomic stability of the country, increasing production, and therefore employment and living standard of citizens and allows service of external debt.

The interviewed organic producers provided many recommendations for improving the development process of OP in Serbia: more active involvement and support of the Ministry of Agriculture and other state institutions, higher level of state subsidies, favorable loan conditions and better support from the financial institutions, faster and easier certification, more strict State's control on traffic of pesticides in organic production and in regulating markets, implementing of appropriate strategy for development of organic farming, etc.

CONCLUSION

The economics of the current food system are unfavorable for many food chain actors including producers and consumers. Many studies highlight the potential of organic agriculture as a sustainable development opportunity for developing and transition countries. Organic agriculture development brings about multiple and multifaceted benefits to rural economies, urban consumers and the society as a whole. It contributes also to farmer livelihoods improvement, environmental protection and public health enhancement. Organic farms have economic multiplier effects that go beyond the farm boundary. They support local economies in rural communities by providing jobs for community members and purchasing local products. Short supply chains initiatives (e.g. farmers markets, food cooperatives, community-supported agriculture) allow consumers to put their money directly into farmers' pockets thus strengthening sustainable regional food systems.

Organic production is very important for Serbia as it has always been an agricultural country with rich natural resources and a long production tradition. As more consumers consider the environmental, health and social consequences of industrial food production, demand for sustainably raised foods is growing. Contemporary trends and awareness of the necessity of a healthy society and preservation of the environment fostered an organic production as an alternative to conventional agriculture. Farmers are dedicating more and more land to organic production in response to consumer demand.

Organic farming has a significant role in rural areas as it allows developing economies, diversifying activities and attracting financial resources therefore it is an integral part of rural and agricultural development strategy. Organic agriculture provides opportunities for the development of family farms and small producers in Serbia, the promotion of eco- and agro-tourism and the preservation of traditions. In this sense, the contribution of the state, in the form of proper funding and subsidies to organic producers, is invaluable and important for the whole national economy. At the same time, state's interventions should also aim at improving the access of organic producers to information and communication of organic food products properties and features to consumers.

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