

Risk management in organic farming: new insights and conclusions by the EDUECO individual training program

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Abstract

The wider objective of the EDUECO: Education of Teachers in the field of Ecological Food Production and Management - a project financed by TEMPUS Program of the European Commission, is to build up educational capacities in educational institutions in Western Balkan countries (WBC) in the field of organic farming and management. Along with staff development workshops, the activities concerning university staff development include individual expertise development programs on content specific knowledge for educational capacities development. This paper considers the importance of sector development and presents the results from an individual training program implemented in May 2014 in Bulgaria focused on the risk management in organic farming.

Key words: *organic farming, risk management, training programs.*

Introduction

Nowadays globalization processes pose many opportunities and challenges to states and international communities. Sustainable development is accepted to be a fundamental goal as connecting economic with ecological effectiveness of production for wise use of natural resources and keeping ecological balance on the planet while considering social aspects at the same time. Future development depends on what extent humanity will achieve the optimal balance between economic, social and ecologic effectiveness in connection to climatic changes,

irrational use of natural resources, water and soil pollution, decreasing biodiversity and threatened landscapes which are among the most commented and interconnected problems from the ecological point of view. Strong demographic problems, social inequalities and increasing poverty are the other side. Recently, the focus is on sustainable agriculture which integrates three main objectives – healthy environment, economic effectiveness and social justice.

Nowadays, when the international community is searching for ways of effective use of all the resources (natural, material, financial, human, etc.) the organic production method as a multifunctional system integrating economic and social issues with those of environmental protection, is an appropriate alternative for the operators (producers, processors and traders) to find the best solution for organization, management and development of agricultural holdings, processing or trade companies and to find markets for their produce. In that connection, encouragement and development of organic production and its integration with other economic branches is one of the alternatives for future sustainable development. The leading principle in this development is the quality.

The choice of consumers is directed towards healthier and tastier food with high nutritional values produced by environmentally friendly methods as it is organic farming in particular. As a whole, consumers now do not search anymore only easily determined facts in relation to quality, safety and hygiene of products but also such that give added value and answer sustainability goals and a market-oriented operator should respond to consumers' demands in order to sell the produce. Organic production is a production method which in the greatest extent puts the accent on environmental protection, health and safety. That way it appears to be the right and the most direct way for a farm/plant to respond to all legislative requirements in those fields. On the other hand, the organic sector proves to be one with the biggest potentials for achievement of sustainable economic and social growth, as well as for supporting rural areas development. The key difference between intensive agriculture and organic farming turns to be that the first one is oriented towards world market while the second one towards ecosystems. A commonly accepted notion is that one of the indicators of society viability and sustainability is the food system's long term health impact in which sustainable agriculture is of particular importance. Thus, from its advent as a way of thinking and agricultural practice at the beginning of 20th century organic farming has been expanding and embracing more and more countries and areas.

In the Balkans, with the exception of Croatia, organic farming is far from developed and its production is mainly destined for export. In many countries the relevant laws are recent, or as yet to be consolidated, and public support is low or just starting to emerge. The consumers' buying power is limited, as the national market is still disconnected, disorganised and often inefficient (Vittuari, 2011). Priority needs in agriculture and forestry development in the Republic of Serbia for example as set in 2007 (Table 1) are still topical.

Table 1. Priority needs in agriculture and forestry development in the Republic of Serbia¹

<ul style="list-style-type: none"> • Improve public awareness and build capacity to help farmers utilize rural development programs that support environmental standards.
<ul style="list-style-type: none"> • Strengthen extension services in the areas of nutrient management, integrated pest management, organic certification, and marketing.
<ul style="list-style-type: none"> • Existing and new policies should strengthen conservation practices; gaps in regulations should be filled.
<ul style="list-style-type: none"> • Promote programs for agricultural revitalization and diversification, agro-diversity preservation, and organic agriculture.
<ul style="list-style-type: none"> • Increase investments in irrigation, drainage, and soil conservation to improve water management, reduce salinity, and combat soil erosion.
<ul style="list-style-type: none"> • Finalize new forest laws to emphasize sustainable development and mainstreaming concepts.
<ul style="list-style-type: none"> • Build capacity among public employees and private forest owners in sustainable development and multi-use management, e.g., improving the national system of protected areas.
<ul style="list-style-type: none"> • Improve management on private lands and strengthen the forest advisory system.
<ul style="list-style-type: none"> • Strengthen forest ownership rights, establishing clear boundaries for forest lands; stimulate consolidation of parcels, and update the forest cadastre.

¹ Integrating Environment into Agriculture and Forestry: Progress and Prospects in Eastern Europe and Central Asia - Volume II. Serbia country review. November 2007.

- Efforts to begin certification on public and private forests should be bolstered.

The case is similar for Montenegro and Bosnia and Herzegovina as are the statements that the development of organic agriculture is at the very beginning and all activities up to now are directed towards creating normative and institutional prerequisites for complete affirmation of this type of production, and through it for affirmation of the comparative advantages of ecologically pure, natural and agricultural resources of Montenegro² and that organic production in Bosnia and Herzegovina is in the beginning stages of development, and the organics market is still undeveloped³. All these is reconfirmed by a recent investigation too⁴ concluding that organic sector is still in the beginning and can be considered as a small niche market. It gives 10 proposals to increase the trade with organic produce and make better use of the sector potential: knowledge transfer in organic agriculture within the region, linking smallholders and farmers to the markets through improved organic supply chains, joining forces by forming farmers' groups, improving the land market, provision of necessary inputs, organic advisory services, certification, branding & awareness rising – and regionality, stable business environment and trade, market information, trend towards healthy food and to a sustainable food production for 9 billion people. In the first priority the study proposes pPeer-to-peer meetings, seminars, local fairs, etc. along the organic agricultural supply / value chain that would speed up know-how transfer, bring people with same interests together and build networks to commonly solve the problems organic agriculture is facing⁵.

² Montenegro's agriculture and European union. Agriculture and Rural Development Strategy. Final report of the EU funded project, managed by the European Agency for Reconstruction. Podgorica, 17. July 2006.

³ Bosnia and Herzegovina Agriculture and Food Processing Industry. Sarajevo, 2011. Foreign Investment Promotion Agency.

⁴ Markhof M. M., S. Stafa, E. Maksumic, I. Milicevic, R. Brajkovski, A. Demaj, R. Batakovic, B. Lazic (2013) Study on the organic potential in South East Europe. Albania, Bosnia and Herzegovina, Croatia, FYR Macedonia, Kosovo, Montenegro and Serbia.

⁵ *Ibid.*

In that connection another relevant study defines organic agriculture as a production system based on an agro-ecosystem management approach that utilizes both traditional and scientific knowledge⁶. Organic agriculture should be integrated into the curriculum for primary and secondary schools. Specialized institutions involved in training for organic agriculture should be supported. Higher education in organic agriculture should be developed⁷. Improving efficiency throughout the entire value chain of organic food production requires, in the case of Serbia, major investment and better education and training which, in addition to technical subjects, have to include farm and production economics, management, marketing and presentation (Marz *et al.*, 2013).

The project EDUECO is to build up educational capacities in universities in Serbia, Bosnia Herzegovina and Montenegro to support sustainable economic development of food production based on ecological principles. The idea for EDUECO project is developed to meet the expected increase of consumer demands on food produced on ecological principles through improved teaching at non-university educational institutes. The project addresses the 'Europe 2020' program priorities, particularly the 'Smart growth' (develop educational systems), 'Sustainable growth' (ecological food production) and 'Inclusive growth' (develop strong connection between job market demands and education)⁸.

During the implementation of EDUECO some generic recommendations are formulated in a research report of the need of education (Verweij, 2012) as follows: collect and share the experiences, curricula and study materials developed by universities, NGO's and secondary schools, available in Serbia in particular; to realize the improvement of education for the organic food sector at secondary schools it is important to involve stakeholders of the organic food chain in curriculum development, as (guest-) lecturers in teaching, and for excursions etc. These stakeholders of the organic food chain are producers, traders, processors, retailers, consumers as well as researchers, extension officers and financial

⁶ Best practices for organic policy. What developing country governments can do to promote the organic agriculture sector. United Nations New York and Geneva, 2008. CBTF. UNEP-UNCTAD Capacity Building Task Force on Trade, Environment and Development.

⁷ *Ibid.*

⁸ <http://edueco.edu.rs>

advisors (banks); make an inventory of companies and organisations in the organic food sector, so far as this is not available; a plan should be made how to involve these companies in development of education for the organic sector; do not focus only on the contents of the modules to be developed, but also on educational approach; be aware of the needed integration of subjects; a teacher network organization is needed, not per country but between teachers from the three involved countries. This network is for sharing expertise, experiences and educational materials (books, assignments etc).

That way the project implementation lead to the establishment of a professional network in the field of organic farming and management. Participants of the EDUECO network are organisations that are involved in development and offering of professional oriented programs in organic farming, processing and trade in Serbia, Bosnia and Herzegovina and Montenegro. The EDUECO network promotes sharing of knowledge about organic farming through international co-operation, in order to strengthen the organic food production sector in the South East European countries. The objective of the network is to perform in an active way knowledge transfer, knowledge development and networking in the field of ecologic food production⁹.

The EDUECO offers three teacher training programs on ecological food production – one for each Western Balkan partner country (WBC), which development and execution are supported by the EU partner countries (Netherlands, UK, Hungary and Bulgaria). Development activities conducted in EDUECO lead to the conclusion to make teacher training programs in several modules: General, Soil&Ecology, People&Business (incl. Risk management), Plant production, Animal production, Processing, Teaching methods. Development of teacher training courses, and the particular example of the submodule “Risk management in organic farming”, along with all other activities of the seven work packages of EDUECO, is an example how to create successful practices not only in capacity development and trainings in ecological food production, and organic farming in particular, but also in encouraging sector development based on a number of activities of regional co-operation in the educational sphere and in close connection to world trends of sector development and good practices (Radovic&Arabska, 2014). The accent on

⁹ <http://edueco.rs>

risk management was substantiated by the importance of the capability of organic stakeholders to understand risks and take informed risk management decisions. Based on the development of teacher training programs and vocational modules in EDUECO, particularly the submodule of Risk management in organic farming in the module of People&Business in developed teacher training programs, and in the process of preparation of a book in organic farming in the framework of the project, an individual training program was prepared for university staff involved in the preparation of the book on organic farming and management for WBC in the specific section of risk management in organic farming. The general objectives of that program are: providing individual expertise training program on specific competencies in risk management in organic farming on different levels; discussing book design and contents. The draft of the program is presented on table 1.

Table 1. Individual training program on risk management in organic farming

Day	Activities description	
	<i>Activity and short description</i>	<i>Objectives and assignments</i>
First day	Arrival Discussion on the program, objectives and assignments	The planned program to be discussed and if needed changed in order to provide more opportunities for discussions with experts on risk management issues in the field of organic agriculture considering regional peculiarities and opportunities for integration with tourism
Second day	Collection of information about risk management	<i>Objective:</i> Search for specialized literature on the topics concerned and collecting new information <i>Assignment:</i> Making a literature overview
Third day	Risk management in organic farming I	<i>Meeting with organic stakeholders</i> <i>Objective:</i> Discussing the process of risk management on different levels <i>Assignment:</i> Analysing ways of handling risks in organic agriculture
Fourth day	Discussion on the Manuscript	<i>Meeting with university staff and experts</i> <i>Objective:</i> Discussion on organic farming and

Day	Activities description	
	Activity and short description	Objectives and assignments
	preparation - Purpose - Research - Outline - Visualization	management book that should be prepared, putting the accent on the chapter of People& Business and risk management section in it <i>Assignment:</i> Determine the specific place of risk management concept in organic farming and management and formulate a clear vision how to incorporate into the book and the corresponding chapter
Fifth day	Risk management in organic farming II	<i>Meeting with organic stakeholders</i> <i>Objective:</i> Discussing the process of risk management on different levels <i>Assignment:</i> Analysing ways of handling risks in organic agriculture
Sixth day	Risk communication Departure	<i>Meeting with university staff and experts involved in organic farming and management research or extended services</i> <i>Objective:</i> Discussion and concluding remarks

Results

The program described above (Table 1) was implemented with the assistance of the project partner from Bulgaria - the University of agribusiness and rural development (UARD). It started on the first day with a meeting of the participant from WBC Assoc. Prof. Dr. Vesela Radovic from EDUCONS University, Sremska Kamenica, Serbia, with UARD representatives and experts in the examined field. Preliminary, the participant has prepared a draft plan of the chapter of organic risk management. A discussion was conducted on the program, its objectives and assignments, as well as on the book in its specific part of management in organic production. On the second day discussions continued on risk management issues in the field of organic agriculture considering regional peculiarities and opportunities for integration with tourism. Third day program accented on risk management in organic farming through the point of view of organic producers. The objective was to

discuss the process of risk management on different levels, the assignment - analysing ways of handling risks in organic agriculture. Some considerations were made on the opportunities to develop organically and to connect organic production to tourist activities in relation to risk assessment and management issue.

Fourth day was devoted to discussions on the manuscript preparation: purpose, research, outline, visualization in a meeting in UARD. The objective was to discuss on organic farming and management book that should be prepared, putting the accent on the chapter of People& Business and risk management section in it. Some information about UARD projects concerning organic farming and management and UARD good practices in publishing modules books in projects was collected. The assignment was to determine the specific place of risk management concept in organic farming and management and formulate a clear vision how to incorporate into the book and the corresponding chapter. Meeting with experts from UARD specialized units: Faculty of economics and management, Department of technology (agribusiness), Centre of vocational training, National and international projects department, Scientific research and extended services department were organized and conducted. Some good practices in working on projects for rural development through good management and risk assessments were considered too. On the fifth day the program continued by more meetings with organic stakeholders and discussions. New insights were given by the visit in an organic oil distillery in the village of Zelenikovo successfully applying corresponding European standards in production of essential oils.

On the sixth day the accent was on the issues of risk communication and making concluding remarks about organic risk management, book preparation, networking and sustainability of EDUECO.

Discussion

The questions of risk assessment and management in organic farming were discussed as being really faced and dealt with by stakeholders in Bulgaria. Some important conclusions were made in connection to the fact derived from discussions during meetings and visits that risk management in agriculture as a whole, and in organic agriculture in particular, is not a common issue and in most cases underestimated and overlooked in small farms although at the same time being well-addressed by the visited processing company, especially concerning human

resources and the connection to technology, distinguishing itself by good management and development in a rural area in conditions of crisis stressing on quality assurance and international image. Thus, the hot points and the contents of the relevant chapter in the EDUECO book should be made for use by the target groups in a proper way for education capacity development providing necessary information, knowledge and skills in organic risk management. The issues considering subsequent cooperation activities were discussed too in searching ways of networking and providing sustainability of EDUECO project outcomes through joint future initiatives and projects in the field of organic management, and risk management particularly, paying special attention to building of educational and research capacities and rural development.

Conclusion

Organic farming is an overall systematic approach based on a number of processes involving risk assessment and management issues. Some of the challenges before organic sector are the following: increasing the level of information for organic production / consumption advantages; selection of appropriate varieties; improving production technologies; lowering cost price; increasing production; providing markets, etc. all implemented in the main managerial problems. The future of the sector is dependent on information provided to consumers and operators and popularization of ecosystem services – the real price of saved nature and effective, long-term and sustainable use of resources, development and transfer of innovations, consulting and training activities, creation of favorable administrative and social environment, etc. One of the most crucial points is the provision of effective control of quality and safety in order to assure consumers' trust. Putting the accent on risk assessment and prevention, as well as risk management on different levels, should be a major task in sector development and management on different levels.

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