

**A thesis submitted to the Department of Environmental Sciences and Policy of
Central European University in part fulfillment of the
Degree of Master of Science**

**IN QUEST FOR SUSTAINABLE AGRICULTURE: THE EMERGE OF
CERTIFIED ORGANIC FARMING IN BULGARIA: FARMERS’
MOTIVATION AND PERSPECTIVE**



Katrin Lazarova TOMOVA

Supervisor: Assistant Prof. Guntra AISTARA

July, 2013

Budapest

Notes on copyright and the ownership of intellectual property rights:

(1) Copyright in text of this thesis rests with the Author. Copies (by any process) either in full, or of extracts, may be made only in accordance with instructions given by the Author and lodged in the Central European University Library. Details may be obtained from the Librarian. This page must form part of any such copies made. Further copies (by any process) of copies made in accordance with such instructions may not be made without the permission (in writing) of the Author.

(2) The ownership of any intellectual property rights which may be described in this thesis is vested in the Central European University, subject to any prior agreement to the contrary, and may not be made available for use by third parties without the written permission of the University, which will prescribe the terms and conditions of any such agreement.

(3) For bibliographic and reference purposes this thesis should be referred to as:

Tomova, K. L. 2013. *In quest for sustainable agriculture: The emerge of certified organic farming in Bulgaria: Farmers' motivation and perspective*. Master of Science thesis, Central European University, Budapest.

Further information on the conditions under which disclosures and exploitation may take place is available from the Head of the Department of Environmental Sciences and Policy, Central European University.

Author's declaration

No portion of the work referred to in this thesis has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.

Katrin Lazarova TOMOVA



ABSTRACT OF THESIS submitted by:

Katrin Lazarova Tomova for the degree of Master of Science and entitled: *In quest for sustainable agriculture: The emerge of certified organic farming in Bulgaria: Farmers' motivation and perspective*

Month and Year of submission: **July, 2013.**

In the past 10 years, organic farming in Bulgaria has been emerging – the certified organic land and the number of organic producers increased significantly, and consequently the public awareness on the benefits of organic farming has also increased. The reasons for those processes, as well as the rationale behind it, are interesting to be explored and researched. Therefore, the current study focuses on the farmers' perspective on the sector and their motivation for being organic. By analyzing the data collected from semi-structured interviews, conducted with organic farmers in May 2013 in Bulgaria, the present thesis tackles farmers' motivation and their relations to sustainability, as well as the role of the EU and the need for certification. Analyzing the important function that organic farming could have on rural development, the present study also talks about the role of organic farming in shaping the future sustainable agricultural sector in Bulgaria.

Key words: < organic farming, certification, Bulgaria, farmers' motivation, perspective, sustainable agriculture, EU. >

Acknowledgements

I would like to thank my thesis advisor, *Dr. Guntra Aistara*, for all of the continuous support, motivation, and guidance during the thesis writing period.

I would also like to thank CEU for providing me with this great opportunity and awarding me with a scholarship and to all my CEU friends who made this year unforgettable.

To all the farmers who were happy to talk to me, offered me not only their delicious organic products, but also their knowledge and insights and gave me hope for the future of the organic movement in Bulgaria.

To all the travels around my beautiful country that only made me realize how much I want to work towards preserving those natural beauties and to my brother and his car that helped me conduct my research.

To *Peter Parvanov*, for supporting me throughout the whole academic year, for being always there where I need him, for the precious advices and discussions and for the wine and cheese nights together.

To my father *Lazar Tomov* who first “planted” the love for nature in me.

And finally, I would like to thank my whole family for everything, and especially my mom.

Благодаря ви!

Table of Contents

Chapter 1: Introduction	1
1. AN OVERVIEW OF THE CONCEPT OF ORGANIC FARMING	1
1.1. HISTORY OF BULGARIAN AGRICULTURE AND THE EMERGE OF ORGANIC FARMING	3
1.2. ORGANIC CERTIFICATION AND THE ROLE OF THE EUROPEAN UNION	6
2. Research Aim and Objectives	8
2.1. Research Questions	8
3. Methodology and Motivation	8
4. Literature Review on Organic Farming and its Relation to IFOAM Principles, the Principle of Multifunctionality and the Endogenous Model	13
5. Theoretical Framework	21
Chapter 2: Historical overview of Bulgarian agriculture and development of organic farming practices in Bulgaria	22
1. Socialist and Post-Socialist Agriculture: The Rise and Fall of Bulgarian Agricultural Sector	22
2. The new Wave: Transition to Market Economy	24
3. The way towards Europeanisation: The EU accession process in Bulgaria and the Common Agricultural Policy (CAP) implementation	27
4. Organic Farming in Bulgaria	31

CHAPTER 3: ANALYSIS OF CURRENT FARMING PRACTICES AND THEIR RELATIONS TO SUSTAINABILITY	41
1. Theoretical Framework and Data Analysis	41
2. Motivation of the farmers	51
3. The role of the EU	55
Chapter 4: Benefits and Problems occurring in organic farming certification practices and Conclusions	60
1. History of certification. Main benefits from certification. Third party certification.....	60
2. Certification in Bulgaria.....	62
3. Critique of mainstream organic certification	64
CONCLUSIONS: <i>The role of Organic Farming in quest for sustainable agriculture in Bulgaria</i>	65
Appendix	67
Questions / Sample Questionnaire.....	67
List of interviewed farmers:	68
Reference list	69

Chapter 1: Introduction

1. AN OVERVIEW OF THE CONCEPT OF ORGANIC FARMING

Dating from 10, 000 years ago, agriculture has evolved over time - from traditional farming to today's industrial agriculture. Nevertheless, the agriculture as it is today places a serious burden on the environment by damaging the soils, water, wildlife and even traditional farming communities (FAO 2012). For instance, each year the world uses about 3 million tons of pesticides, formulated from 1,600 different chemicals (Horrigan et al. 2002), as well as it is a major contributor to the phosphate pollution of waterways (OECD, 2001). Therefore, producing food in environmentally sustainable ways will be one of the key challenges we will face in the future and we need to make this transition towards less environmentally damaging agriculture. Consequently, in recent years the emerged concern for environmental protection, arising health problems and plant diseases has resulted in increased interest in organic farming practices and their recognition as a response to the quickly raising environmental problems. Building on the fundamental works of Steiner (1924), Northbourne (1940), Howard (1947) and many other researchers who were heavily criticizing the industrialization of the agricultural sector and were thus looking for other farming practices that could be based on the co-partnership between the soils and the life of the creatures which inhabit it, organic farming as it is today could provide an opportunity for future development of more “sustainable” agricultural sector.

Some authors consider organic farming to be under the sustainable agriculture “umbrella” (USDA 2009), although opinions differ according to the situations. Nevertheless, organic farming is generally seen as environmentally sound farming practice

(Darnhofer *et al.* 2003). On the other hand, there is a continuing and intense debate over the definition of sustainable agriculture for many years. The Food and Agricultural Organization (FAO) defines sustainable agricultural development as "the management and conservation of the natural resource base ... in such a manner as to ensure the attainment and continued satisfaction of human needs for present and future generations. Such development... conserves land, water, plant and animal genetic resources, is environmentally non-degrading, technically appropriate, economically viable and socially acceptable." Another short definition is the one by McClymont (2012) which states that "sustainable agriculture is the act of farming using the principles of ecology, the study of relationships between organisms and their environment". The European Commission (EC) adds to this by saying that sustainable agriculture is also a management of natural resources in a way which ensures that the benefits are also available in the future" (COM 1999). Generally, the term sustainability and sustainable agriculture is among the most topical issues in many scientific and policies debates. The term is now facing a great challenge on how to unite people, nature and economies - terms that usually not always merge together as a whole into development visions (Mincyte 2011). Therefore, it is important to understand that in order to have sustainable agricultural policies, we need to integrate nature, people and economies, situate them within the specific local context and integrate them with the global challenges we are facing today.

Furthermore, effective management of the natural resources in organic farming not only could provide higher yields but also stimulate the self-regulation and nature resistance, which the soils, plants and animals possess (Dzhabarova 2011). Generally, many different definitions of organic farming have been adopted by various institutions and organizations,

however, this research I will refer to the one developed by International Federation of Organic Agriculture Movements (IFOAM) which states that organic agriculture¹ is:

Organic agriculture is a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved (IFOAM 2013).

All in all, whatever definition we choose to adopt, they all circle around the principles of ecology and future generations and focus on taking full advantage of the benefits that the natural resources are providing to us without harming the environment. In this regard organic farming as a type of sustainable agricultural practices is indeed in full concordance with this goal and thus we could assume that some of the principles of organic farming are in full concordance of the principles of sustainable agriculture.

On the other hand, if we choose to focus not only on the definition itself but the concept of organic farming, it could be observed from many different aspects. Some farmers see it as a philosophical idea that promotes harmony between people and nature (Steiner 1924, Howard 1947) as for others it is just a complex process which includes defined techniques and methods that are also beneficial for the environment (COM 1999). This is exactly why it is interesting to observe the farmers' perspective on the concept – for

¹Organic agriculture and organic farming will be used simultaneously as they refer to the same term.

some it totally excludes the use of chemical fertilizers and promotes methods in harmony with nature and considerations of health and care, as for others it means strictly defined rules, higher financial profits and global markets. The present study will focus on the rationale that motivates farmers to be involved in organic farming and to promote it. Nevertheless, little research has been done on the way farmers look at their motivation and ideas, therefore this research will tackle farmers' perspectives on the concept of organic farming particularly in Bulgaria.

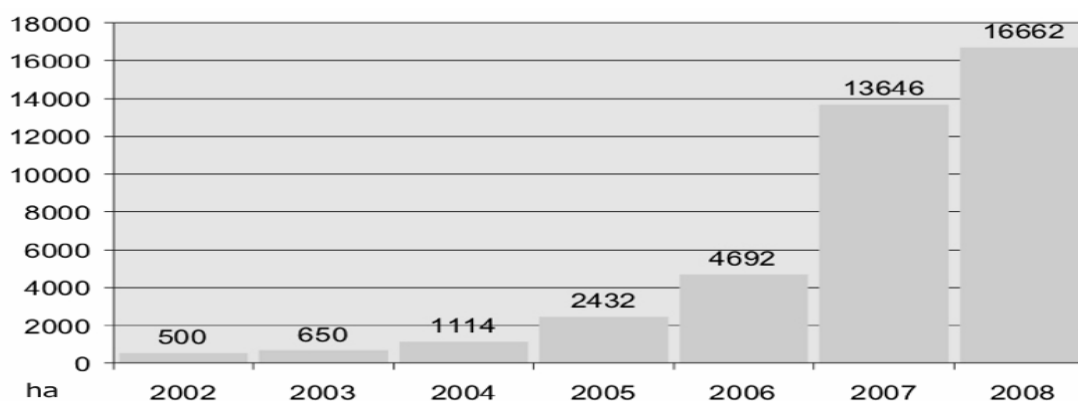
1.1. HISTORY OF BULGARIAN AGRICULTURE AND THE EMERGE OF ORGANIC FARMING

The present thesis will focus on Bulgarian organic sector and its farmers not only because of the immense climatic potential that the country possesses for agriculture, but also because of the possibilities that are arising in front of the organic farming sector. Looking at Bulgaria in this regard requires first a historical overview of its agricultural sector. The country has very favorable both climatic and soil conditions for development of agriculture and indeed during Soviet times (1946-1990), it was one of the main exporters for The Union of Soviet Socialist Republics (USSR). For example, in 1984 Bulgaria contributed to about 50% of the total production of potatoes and about 40% of the milk and 36% of the vegetables in the USSR (Wyzan 1990). In addition agriculture accounted for about 65% of the national income (Jackson 1991). However, after the fall of the Soviet bloc, a significant reform of the system took place and the Bulgarian agricultural sector fell into a deep economic and structural crisis and the share of the sector in the country's gross domestic product (GDP) decreased to 17,3% in 1999 (Bencheva 2005). The transition period for the country created rural disparity, disputes over land, depopulation,

demographic crisis, declining interest in farming and thus decreases in agricultural production. Moving ahead over time requires focus on the period after the country became a European Union (EU) member in 2007. This period is characterized with new opportunities for the sector which were revealed, but also the economic crisis and some policy failures which influenced negatively further development of the agricultural sector. Meanwhile, a new form of agriculture started to emerge - organic farming which showed increasing figures over the past several years. In fact, it was probably the only sector that was not influenced by the economic crisis which started in 2008 (Hristov 2010).

The concept of organic farming was first introduced in Bulgaria as part of an experimental garden in the Agrarian University of Plovdiv which was developed in 1993 (Bioselena 2012). Later on, between 2000 and 2004 the establishment of a national organic legislation took place and the first certified organic farm was created, as well as the first organic shop was opened in Sofia (Bioselena 2012). After those initial steps, over the last 10 years organic farming has emerged and the number of certified producers has increased significantly. For example, in 2012, the official number of members of the Bulgarian Organic Products Association (BOPA) increased three times (BOPA 2012) and the total number of organic producers, manufactures and sellers, registered in the Ministry of Agriculture and Food (MAF), for 2012 is **2 016** compared to **476** in 2009 (MAF 2012). Although there is increase in almost all number, the role of the sector is still very small and this should be underlined. For example, if we observe the graph below (Figure 1), we shall see that the arable land used for organic farming has increased tremendously, but if we compare it to the total agricultural land it is only 3%.

*Figure 1. Dynamics in arable land used for organic production in Bulgaria /
Source Bioselena 2009*



Moreover, in comparison to some other countries within the EU, Bulgaria occupies the last place with its 3%, France, for example has 7%, Germany 12% and Spain has the highest percentage - 17% for the year 2008 (EUROSTAT 2010). Therefore, it is important to always carefully analyze statistical information when talking about organic farming in Bulgaria since even a great increase could be insignificant. Nevertheless, the sector is indeed emerging and the reasons for this increased interest, as well as the characteristics of the sector as a whole are a consequence of many factors which deserve special attention. Therefore, this thesis will tackle questions regarding this phenomenon and the rationale of the farmers to be organic since the sector may start to play an essential role in the agricultural sector in Bulgaria in the future.

Moving forward would require a little more attention to the EU accession process which, as already noticed above, has a very important role in the development of the sector. Nevertheless, governmental and EU subsidies and policies cannot be considered as the most influential factor for the increased interest in organic products in Bulgaria since there are a number of problems surrounding them. Consequently, this thesis will try to focus on the

crucial role of the both EU and national policies aiming at the development of organic farming and will analyze them. Generally speaking, after the adoption of Regulation 2078 in 1992 the EU started to create its general framework for the agri-environmental policies aiming to integrate environmental considerations into agricultural policies. Its main points strongly emphasizes the importance of organic farming since it seeks to a) accompany the changes towards making the EU agriculture more sustainable to be introduced under the market organization rules; b) contribute to the achievements of the Community's policy objectives regarding agriculture and the environment and c) contribute to providing an appropriate income for farmers (EC 1992). Furthermore, EU invests in its farmers by providing payments which are a move in the right direction, since they assure financial support to the farmers in the process of certification and development of the business. Nevertheless, those incentives are not always very effective, especially in the new-member states, as sometimes the EU requirements are too bureaucratic or hard to follow, plus the dialogue between institution and farmers is often difficult. This results in various administrative issues, as well as delay of subsidies or limited access to certain funds which only intensify the problems and prove that the current policies are not effective enough. In this regard, the thesis will focus on some EU policies which are now being implemented in Bulgaria, such as the Agroecological measure 214 from the Programme of Rural Development, and will try to analyze their effectiveness in promoting organic farming and sustainable practices in general.

1.2.ORGANIC CERTIFICATION AND THE ROLE OF THE EUROPEAN UNION

Furthermore, an analysis will be made on the problems and benefits occurring from certification of organic products. According to Bachev (2004), usually the organic form in

Bulgaria is introduced by business entrepreneurs who have the necessary financial capacity to fund its certification, which is practically done by foreign certification bodies. This is generally true, but there are also many farmers who have weighed the pros and cons, have managed to invest to become certified and are paying for the extra work in order to get their products differentiated and generate higher profit margins. The motivation behind this decision is often different, however there are some similarities that are interesting to be observed. Therefore, it is important to understand their motivation for this choice, as well as the problems they have after certification in terms of market placement and income. It is important to point out here that usually organic production from Bulgaria is almost always designed for export (90%) to the Central and Western European countries, North America and Japan and only about 10% is designated for the local market (Bioselena 2012).

Although small (only 10%), the Bulgarian market is emerging and would also require some attention. Very often, farmers who wish to sell their produce in the Bulgarian market are having serious problems with finding demand for organic products and prefer to sell it through established personal connections based on trust. The thesis will also talk about the self-perception of the farmers in general and their role in promoting sustainability and environmental values, since so far, researchers in Bulgaria focus a lot more on the development of the sector in general, rather than the farmers' perspectives, motivation and problems. Overall, seeing organic farming as a new wave that is currently emerging and could play an essential key-role for the future of the Bulgarian agriculture, this thesis will try to tackle the farmers' motivation, the problems and benefits of certification, as well as try to understand what would be the right direction for the Bulgarian agricultural sector, as seen by the farmers. By analyzing farmers' motivation and their relations to sustainability, I

will try to evaluate the data and come up with thoughts about the role of organic farming in quest for sustainable agricultural production in Bulgaria.

2. Research Aim and Objectives

The overall **aim and objectives** of the present study are:

Provide an overview of the rationale that motivates organic farmers, as well as to analyze the role of the EU policies, certification, and famers' relation to environmental values in the agricultural sector in Bulgaria.

2.1. Research Questions

- 1) How do organic farmers see their role in relation to environmental values and rural development?*
- 2) What is farmers' motivation to be certified organic farmers?*
- 3) What benefits and drawbacks does organic certification entail for the future development of the agricultural sector in Bulgaria?*

3. Methodology and Motivation

3.1. Motivation and methods

My interest in sustainable agriculture and especially in organic farming as an environmentally sound farming practice, as well as the problems surrounding the

agricultural sector inspired me to research in depth a question related to those issues. On one hand, I highly value the relationship between nature and agriculture and the central role that organic farming plays in promoting this special relation. And on the other hand, organic farming as a concept combines the striving for sustainable and environmentally sound food production by using both traditional and innovative methods that are in line with nature and communities, thus I was interested in analyzing its development in my home country - Bulgaria. By interacting with farmers from Bulgaria and analyzing the available literature, I try to understand not only the reasons for the development of the sector, but also the farmer's perspectives and motivation in relation to organic farming practices and the concept itself. Recognizing and analyzing the important role of the EU and the government, I would like to come up with conclusions about the future of the agricultural sector in Bulgaria.

My methods include literature review, observations in the field (including field notes) and semi-structured interviews, all those are elaborated below:

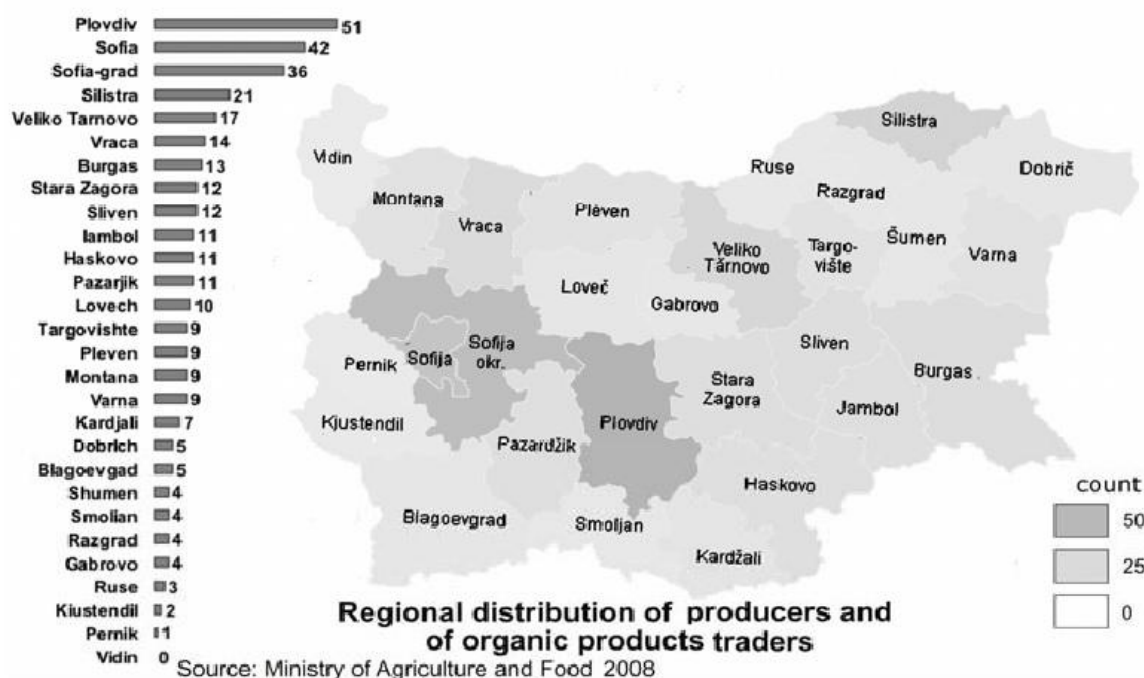
3.2. Literature review

My focus is on the existing policies, plans, strategies and publications in the field of organic farming in Bulgaria and farming policies and transitions in post-soviet countries in order to present up to date information about the current situation. Furthermore, an overview of the literature regarding environmental values and farmers motivation is included. In the last part, an analysis of the existing information on organic certification is made. Journal articles, books and reviews from diverse sources were selected. The reference list of each of them was reviewed in detail in order to find additional relevant articles.

3.3. Semi-structured interviews

In order to better understand the topic, I spent one month in Bulgaria conducting semi-structured interviews with farmers, representatives of non-governmental organizations (NGO), experts, certification bodies and public authorities dealing with organic farming. I did interviews with 12 farmers which were from different regions; however, more focus was put on the ones from the region of Sofia (the capital of Bulgaria) because of the proximity to markets and customers and farmers from the region of Plovdiv (the second largest city in Bulgaria and very fertile land region). Plovdiv was selected as a region also because of the Agrarian University which is located there and works as a scientific body which produces educated experts and helps in the collaboration of the organizations and farmers in the region and throughout the country. In addition, as seen from Figure 2 the region of Plovdiv and Sofia has the most organic farming producers and traders in Bulgaria.

Figure 2. Regional Distribution of Producers and of organic product traders



The target group included mainly small to medium scale farmers or family farms, that are producing vegetables, herbs or dairy products and are selling them both on the Bulgarian and international markets. Questions about their motivation and how they first started to deal with organic farming were asked, as well as the process of certification, their self-perception and role in promoting environmental values, their changes in farming practices, and perception of subsidies, EU regulations and others. The complete sample questionnaire is attached in the appendix part for further information. Overall, I managed to create a personal atmosphere while interviewing, as I visited most of the farms, we held the interviews there and I let them show me the farm and what are they producing. Furthermore, most of the interviews ended with degustation of the organic products such as various dairy products, vegetables, herbs or fruits. The interviews were held in person, which also allowed me to observe farmers' reactions and perception when mentioning or discussing sensitive issues. This personal approach was very much appreciated and made us both comfortable not to stick only to the prepared questions but also to discuss other issues. However, I did manage to ask all my questions as the interviews usually took from one to two and a half hours. All interviews were recorded which also allowed me to further analyze them. Before each interview I asked for permission to cite them with their real names. Nevertheless, because of time constraints of some experts, some interviews were only possible through e-mail. I managed to conduct 12 interviews with farmers, 2 interviews with experts (one from the Agrarian University in Plovdiv and one from an NGO working with farmers). I also conducted one interview with a certification body through e-mail.

3.4. Limitations of scope

As already mentioned because of the busy schedule of some experts, some interviews were possible only through e-mail which did not allow me to ask follow up questions and analyze better. Although, due to time constraints only several farmers from only two main regions were selected and interviewed which could not give me such a detailed perspective on the situation throughout the whole country, those regions are the most active and vital for the Bulgarian organic agriculture. In addition, most of the farmers which I talked to gave me examples and mentioned other farmers in other regions, thus I could make some generalizations about the whole country. Moreover, the organic farming sector in Bulgaria is still quite small and farmers know each other and they managed to help me build a general overview of the sector. Likewise, at first I only managed to contact farmers those contacts I found on – line therefore I did not have any information about other farmers that are not so active in the social networks or internet in general. However, as I mentioned above, organic farmers know each other, thus for example, the director of the Bulgarian Association of Organic Products (who is also an organic farmer) gave me contacts of other farmers which I could not find on-line. Thanks to him, I managed to gather a lot of information about the main problems in the sector that producers have and I also held interviews with farmers from other regions. Overall, the sample size used in the data analysis is relatively small and does not allow generalizations, thus further research will be needed.

4. Literature Review on Organic Farming and its Relation to IFOAM Principles, the Principle of Multifunctionality and the Endogenous Model

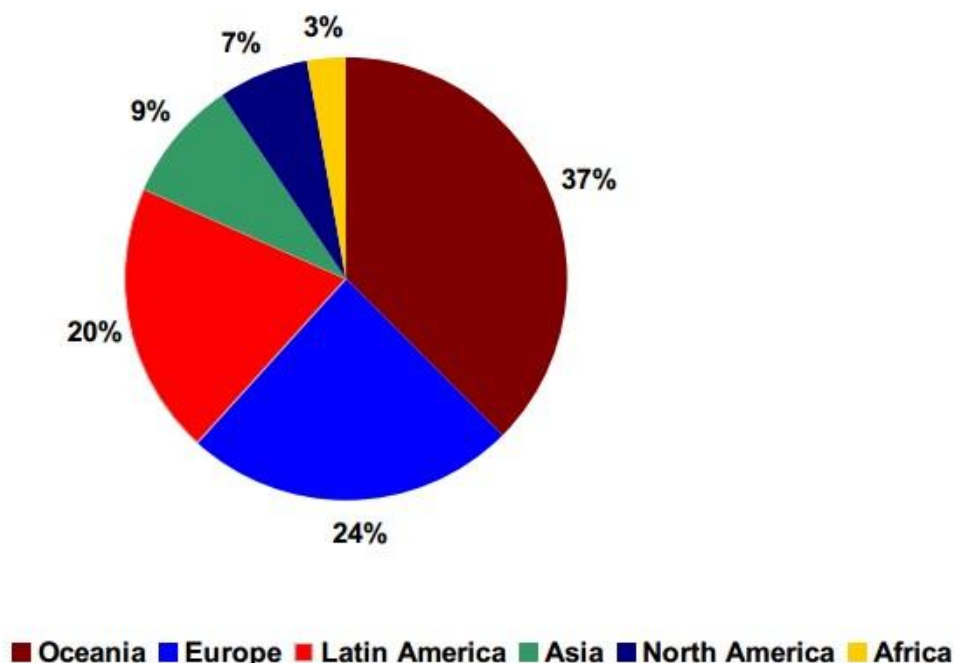
The history of the term “organic farming” dates back to 1940, when it was firstly used by the Oxford professor lord Northbourne in his book “Look to the land” (Paull 2006). However, he was not the first person to observe the relation that agricultural policies have with specific environmental problems, as well as the recognition of the need to integrate ecology with agriculture. Lord Northbourne’s work on organic farming was very much influenced by the ideas of Rudolf Steiner (1924), who developed his work as a response to the newly emerging at that time chemical agriculture. The definition of Northbourne’s formulation of “organic farming” comes from his Chapter 3 heading which he framed as “organic versus chemical farming” (Northbourne 1940).

As noted by Paull (2006), Northbourne’s main contribution is the idea of the “farm as an organism” which has “biological completeness” and represents “a unit which has within itself a balanced organic life” (Northbourne 1940). This idea was also developed by Sir Albert Howard who was working as governing scientist in India for many years and then in 1947 published a book called “Soil and Health: A Study of Organic Agriculture” which was also the first book with the term “organic farming” in the title. By describing in detail the role of minerals, humus, the living soil and the life of the plants, Howard (1947) talks about the soil as the epitome of nature’s balance and refers to the Greeks by even naming it “Mother Earth”(Howard 1947). He also emphasizes the “essential co-partnership between the soils and the life of the creatures which inhabit it” and concludes that soils are full of life. All this resembles Northbourne’s idea of the “farm as an organism” as Howard (1947)

claims that “a farm that was run on the organic bases would have a distinct advantage” due to the presence of “the beneficent soil organisms” (Howard 1947). He also builds up on Northbourne’s criticism of chemical revolution occurring at the time across Globe.

Tracing the historical roots of the concept of “organic farming” requires a deep exploration of the nexus between science, social values, and economical interests. Starting from Steiner and Howard’s concepts of the living connection between soil fertility and plant and animal health, the Law of Return and composting, and moving forward to the present concept of established rules for organic farming practices, the movement has always been facing both public support and battles between economic and intellectual stakeholders (Heckman 2005). As Heckman (2005) describes, not until the beginning of the 1980’s the recognition of organic agriculture started in the USA, with increased interest among the public and logically the need to regulate and establish standards for organic products also increased. In Europe, this process started years later - at the beginning of the 1990s with Council Regulation 2092/91 and then Regulation 2078/92. Nevertheless, today Europe has the second largest organic agricultural land with 24% of its total land for the year 2007 (See Fig. 3). Framing organic farming in the context of the European model of agriculture, the EU keeps placing the development of organic farming as one of its priorities for the future. The main policy document – The European Action Plan for Organic Farming, for example aims to improve the information about organic farming in Europe, stream public support via rural development, improve production standards or strengthen the research (COM 2004).

Figure 3. Distribution of the world's organic agricultural land by geographical region 2007 / Source: FIBL & IFOAM, 2009



As part of the EU, Bulgaria also needed to adopt the European model of agriculture and its Multifunctionality. As discussed by Arzeni *et al.* (2001) this type of agriculture is a “multifunctional and virtuous model” with 3 main functions: a) food functions – producing healthy food in compliance with both quality and quantity considerations, taking into account competitiveness issues in the global market; b) environmental functions – this function is of special importance for the current thesis since it is building upon the production of positive externalities and reduction of negative externalities which are occurring from agriculture and c) rural functions – this function is aiming building agriculture in a manner that helps rural development (Arzeni *et al.* 2001). Furthermore, by looking at this model we distinguish two main types of agriculture: modernized and

traditional (Sortino and Chang Ting Fa 2009). The first one, as described by Sortino and Chang Ting Fa (2009) is characterized by respect to the productivist model, uses accepted methods and technologies and produces some negative externalities. On the other hand, the second type is focusing on fragile areas where the processes of modernization are not applicable; therefore the traditional type is emphasizing local knowledge and traditional farming techniques (Sortino and Chang Ting Fa 2009). Other dualism theories about the European agricultural model were developed by Rossi-Diora in 1958 or Schultz in 1964, however they are not that relevant to the current thesis, thus focus will be put on the one made by Sortino and Chang Ting Fa in 2009. What is important to mention here is that the discussion on how those types differ is still not clear enough, as different authors believe that there is no clear distinction between modern and traditional agriculture but rather a combination of those two. The Bulgarian case could be then observed from the lens of the dualism theory which in this case puts emphasis on the second type of agriculture. Generally, organic farming in Bulgaria is based on local knowledge, since it uses a lot of traditional techniques such as composting or the use of cow manure, thus it could be described as a form of traditional type of agriculture. Nevertheless, organic farming also involves a lot of innovative techniques and methods thus it does not exclude the modern model of agriculture but rather modify it and tries to combine both modern and traditional agriculture. This is also stated in the four main principles of organic farming developed by IFOAM – health, ecology, fairness and care, we find similarities with both local knowledge (traditional model) and accepted technologies (modern model). As discussed by Luttikholt (2006) the principle of care, for example, clearly states that new technologies and “science is necessary to ensure that organic agriculture is healthy, safe and ecologically sound” but

also states that “accumulated wisdom and traditional and indigenous knowledge offer valid solutions tested by time”. If we observe the historical process of rephrasing those principles, we see that they were transformed and revised many times since their first adoption in 1980 when they were 7, in 1999 their number reached 17 and in 2002 it was 15 (Luttikholt 2006). To reach their today’s phrasing, they needed to be revised by all IFOAM members and a consultative group within the membership. Nevertheless, as noted by Luttikholt (2006), now they are coherent, relevant to the modern world, include both modern concepts and are also based on the founding principles but most importantly are widely spread and are being used as the base when talking about organic farming since they have been adopted by many and different institutions worldwide, including the European Union (of which Bulgaria is a member). The IFOAM EU Group is actively working towards the adoption of those principles within all member states and has more than 160 member organizations which include farmers, retailers, consultants, traders, researches and others. This is exactly why this thesis will evaluate those principles and will integrate them in the analysis of the self-perception of the farmers, as well as the sector as a whole and its Multifunctionality.

Talking about the term “Multifunctionality” of agriculture would require some attention to the report made by IAASTD in 2011 since this document is assessing the impacts of past, present and future agricultural knowledge, science and technology and represents an attempt to gather various types of information about agriculture in one single report. The uniqueness of this document lies also in the fact that it was made by 400 of the world’s experts from around the world plus additional organizations and governments. As described in the document the concept of “Multifunctionality” is a concept which

“recognizes agriculture as a multi-output activity producing not only commodities (food, feed, fibers, agrofuels, medicinal products and ornamentals), but also non-commodity outputs such as environmental services, landscape amenities and cultural heritages”. Focusing on the United Nations Millennium Development Goals, the report acknowledges the Multifunctionality of agriculture and gives it a key role in the discourse about development and sustainability. Precisely this point is of crucial importance about the current thesis because Bulgarian agriculture needs to be developed but this should not compromise sustainability and environmental values. Therefore this thesis will explore the question of what benefits and drawbacks organic farming, which is generally beneficial for the environment and brings development, could bring for Bulgarian agriculture. Overall, organic farming is not the only option for agriculture but indeed is a “viable, environmentally and socially sustainable method of agricultural production” (Lampkin *et al.* 1999).

Furthermore, the process of farming usually involves many and different actors (farmers, international organizations, rural communities, traders, local and national authorities, consumers etc), thus it has influence on various subjects and actors. And although certification and regulation standards play an essential role in defining the methods, organic farming also is a holistic management system of agricultural production (FAO 1999). Moreover, as acknowledged by different authors, organic farming has the potential to solve many delicate matters such as environmental degradation (Kristenden 1999), preservation of rural values, the safety and quality of food (Marino 1995) and potentially help in the process of creating not only sustainable agricultural sector but also sustainable rural development (Van Mansvelt and Mulder 1993). Again, organic farming is

very adaptable to other systems but also has the potential to be a catalyst for their future development (Dzharabova 2011). In relation to local development and the European model of agriculture, I would also like to talk about its relation to the so called “endogenous model” which refers a lot to the above mentioned since it promotes internal development of the region which is based on the available resources without damaging the natural and social capital (Dzharabova 2011). Moreover, Dzharabova (2011) argues that one of the main possibilities to enhance development is to follow the endogenous model and apply organic farming since it relies mainly on optimization of local physical and human resources and minimizing the use of external inputs. In this regard, organic farming truly possesses the opportunity to integrate the specific territory with the specific policies. Furthermore, as noted again by Dzharabova (2011) taking into account the main principles of organic farming, the strategic goals of the Bulgarian government and EU policies “the endogenous model is considered to be the most appropriate one for the Bulgarian conditions – nature, traditions, culture”. In addition, the National Plan for Development of Organic Farming in Bulgaria for the period of 2007-2013 (NPDOF 2006) also emphasizes the role that organic farming could have in creating rural employment and developing the rural areas – “Organic farming ... directly contribute to sustainability of the rural development of Bulgaria”. The plan goes on by pointing out that organic farming contributes for income stabilization, prevention of land abandonment and restoration of natural resources. Vladislav Popov – the director of Department “Agroecology” in the Agrarian University in Plovdiv, also talks about the importance of taking full advantage of the local resources that the country has. In an interview for a specialized agro journal (Agrocompass.bg 2012), he emphasizes the role of traditional Bulgarian animal breeds which are adapted for the local

climate and effectively make use of the natural grazing grounds, as well as the role of traditional vegetable varieties.

The role of certification and control of organic production is also of crucial importance for the development of the sector and the recognition of the products. The present thesis will look at this question by focusing on IFOAM's efforts to define and enforce "certified organic" quality as discussed by Raynolds (2004): First, is the codification of formal written standards which restrict organic practices in accordance with general rules since the standards are developed through the acceptance of the use or the restricted use of some agricultural products. Second, IFOAM promotes the third-party monitoring which is aiming at enforcing uniform practices across organic networks and also makes global practices superior over local ones. And third, is the so called "superiority of certified organic" labeled products over all other foods which formulates a single unified organic quality which can be advertised and capture market shares. By analyzing those, the current thesis will try to critique the mainstreaming of the organic sector relying on the work of Raynolds (2004) by talking about mainstream conventions which rely on standards and price competition and comparing them to the alternative concepts (so called organic by default in our case) which are linked with the personal relationships of trust and social justice. Through interviews with various experts, literature review and analysis, the different perspectives on the role of certification and control of organic products will be observed. Moreover, the thesis will also evaluate the main benefits and problems occurring from certification of organic products. In addition, the role of certified organic farming in the formation of the future sustainable agricultural sector in Bulgaria will be discussed.

5. Theoretical Framework

In this section, I will outline the approach that I will be using to analyze my data gathered from the interviews. In Chapter 3 detailed information on the approach, the criteria used will be provided, as well analysis of the data collected will be discussed.

The present study will try to evaluate farmers' motivation and their perception regarding the concept of organic farming. In order to do so, a model which will allow deeper understanding of the rationale that motivates the behavior of the organic farmers in Bulgaria and will allow the grouping of the farmers according to the decisions they make, will be developed. Using as a base "the ethnographic decision-tree approach" which was first developed by Gladwin (1976, 1989) and relying on the works of Darnhofer *et al.* (2003) and McGregor *et al.* (2001), I will try to build a custom model that is relevant to the current research and will help me to evaluate my results easily. The model will be based on the data elaborated from the 12th semi-structured interviews held in person with farmers in Bulgaria. This model was chosen as being the most appropriate since it can provide us with a general overview of farmers' motivation and perception on various questions. It also can help me seek for the link between the above – mentioned endogenous development model and farmers' motivations, as well as helps me understand and categorize various types of farmers.

Chapter 2: Historical overview of Bulgarian agriculture and development of organic farming practices in Bulgaria

“Organic farming is the way to restore Bulgaria and keep it healthy”

Metodi Metodiev, manager of the leading organic foods company producing organic foods with products from Bulgarian organic producers

The purpose of this chapter will be to explain how Bulgarian agriculture evolved over time from being one of the main exporters of agricultural produce during Soviet times, to a vulnerable sector with many problems and difficulties during its transition to a market economy, and moving towards its present situation of uncertainty and possibilities. The chapter will outline the transition period which put the sector in crisis and will move towards the EU accession period. By describing how agriculture changed over time, this section will also focus on the newly emerged concept of organic farming and its development on a global, regional and local level. Special attention will be put on the Bulgarian regulations and documents concerning the organic sector, and encouraging its development. I will also attempt to position the organic farming sector as vital for the future of the agricultural development by explaining its benefits and importance.

1. Socialist and Post-Socialist Agriculture: The Rise and Fall of Bulgarian Agricultural Sector

Talking about agriculture in the Bulgarian context requires some basic information and analysis of the history of the sector. A central part in its development is the so called “socialist” period. Although Bulgaria was not officially part of the Soviet Bloc (1946-1990), its economy was patterned closely to the Soviet system and it was even named the

“sixteenth Soviet republic” or called the “most Soviet” of the Central and Eastern European states by some authors (Yarnal 1994). Therefore, in this first part of the chapter the history of Soviet agriculture in Bulgaria and post-Soviet transition to market economy will be discussed.

If we look at the natural potential of the region, we can easily recognize the immense agricultural opportunities that Bulgaria possesses. Consequently, during the time of the USSR the country was taking full advantage of those beneficial natural resources and agriculture was a substantial sector in the economy of the country. As noted by Bacheva (2005) the cultivable land is 77% of the total used land and 89.15% out of it is cultivable land. Therefore, according to estimations made by Wadekin (1982) in 1960s agriculture and forestry contributed a third to the national income (32.2%) and employed over half of the population (55.5%). Nevertheless, when the Soviet Block started to fall apart, the numbers also started to decline and in 1980 agriculture contributed only 16.5% to the national income and employed 18.1% of the population.

Over time, the country has gone through many and different transformations, however the Soviet period is so far the most fundamental for the agricultural sector because it involves a shift from private smallholders to industrialized large-scale communal farms (Brown, J.F. 1970). Furthermore, during communist time, agricultural production was generally collectivized and organized mainly in large-scale state farms (Mathis and Swinnen 1998) which also, as noted by Turnock (1996), “limited the role of private peasant farming”. Basically, the small farms were destroyed, the lands were combined and large-scale farming was introduced which resulted in marketing shift from local exchange of products to production designed to satisfy Soviet Union’s demands and needs (Yarnal

1994). The analysis that Turnock (1996) made about communist agriculture in Eastern Europe comes up with several important findings which focus on the fact that planned targets of production were often not fulfilled and there was steady growth in the sector which was mainly based on investments in infrastructure, fertilizers and irrigation systems. All this food for the general population was with prices regulated by the state and there was no real market. Another important point about the communist agriculture is that it was heavily dependent on chemical inputs and fertilizers which were damaging the fertile land in the long-term. Likewise, as noted by Yarnal (1994) the farming techniques during that time were mainly industrialized with ever-increasing both chemical and energy input, which created an increasing reliance on mechanization and improved seeds. Yarnal (1994) also mentions the increasing vulnerability to environmental change which Bulgarian farmers were facing during those times. By the end of 1989, even the communist leader of Bulgaria Todor Zhivkov was forced to admit the effort to industrialize agriculture had failed, and a new decree was passed emphasizing small-scale farming (Jackson 1991).

2. The new Wave: Transition to Market Economy

The period after the beginning of reforms started in 1991 and was triggered by transition to market economy which initiated rapid changes in the national economies of many post-Soviet countries (Halmai and Vasary 2007). Agricultural sector was one of the most affected since it had to convert the centrally planned production system to a market based economics. Generally speaking, during the socialist governance the agricultural production was managed by the state and not by competition, therefore when this regime was over, the sector had to shift and the producers were exposed to the competitive global market. And although liberalization of the market took place, the market itself was not fully

established and, in order to protect the consumers, the government imposed restrictions on prices and trade which affected severely food products (Kostov and Lingard 2002). Some of the main measures that were taken by the government at this time included restrictions on prices and foreign trade (high export taxes, bans and minimum export prices). The main goal of the reform, as discussed by Bacheva (2005) was to reinstate the owners in their lands. This was achieved by the enforcement of different laws and regulations which included the liquidation of the collective farms, the liberalization of the market and the prices, the privatization along the whole supply chain, the establishment of financial and credit institutions to deal with agriculture, the creation of market infrastructure, etc. (Bacheva 2005). Nevertheless, the legal framework for the economy was altered many times and the implementation of some of the main laws (such as The Land Law, Privatization Law, Law for Agricultural Land Ownership and Land Use etc) was delayed which resulted in “persistent instability in the economy” plus high levels of inflation (Kostov and Lingard 2002). Moreover, as discussed by Dobрева (1994), the farmers were not prepared for private business and this made the transition process even slower. Another important fact is that the land reform from 1992 and the restitution of the land ownership rights resulted in over 55% of the new land owners living in urban areas. (Kostov and Lingard 2002). The general public living in urban cities was no longer interested in farming or was unable to cultivate its land. In addition, due to the delayed reforms, most of them did not have any legal documents or the land was owned by many people (usually because there were too many inheritors) who were not able to agree on what to do with the land and was thus abandoning it.

Overall, the role of agriculture shifted from a leading sector to “a state of great uncertainty” (Turnock 1996). Some of the main reasons, as described by Turnock (1996) include the end of price controls from the government, the decline in the textile industry, which was a high consumer of agricultural raw materials, restitution of the land and most of all the end of trade relations with the Former Soviet Union. Other authors also analyze the main problems occurring from the regime changes in Central and Eastern Europe and describe them as follows: the absence of competent institutions to functionally manage adjustments within the hurried timeframe, lack of technical, financial and knowledge-based capacity, reduced market values of products, economic instability, population migration, problems with land ownership, delayed structural reforms, land abandonment or import competition (Sumelis *et al.* 2003, Bacheva 2005 Gatzweiler and Hagedorn 2003). If we talk also about the environmental part of the question, it is interesting to point out Yarnal (1994)’s work which has shown that the governmental policies from that period - the land restitution of the land and other agricultural policies, have generally made the farmers even more vulnerable to environmental change. He also talks about how this period “has forced the farmers into a position of diminishing control over needed resources and has reduced their options for responding to natural or human-induced environmental change”.

All in all the transition process altered the role of the Bulgarian agriculture in the global market and from a successful exporter during socialist times (6.66 billion US dollars in 1988) the country has become a net importer of agricultural products after the change in the regime (4.55 billion US dollars in 1992) (Turnock 1996). Furthermore, Bencheva (2005) describes the process as “complex and too lasting” and concludes that at the beginning of the transition (after 1990) the sector fell into a “deep economic and structural crisis”. An

interesting declining number regarding the sector is the share of agriculture in the gross added value of the country's economy for the period 1997-2003 which decreased from 26.6% in 1997 to 11.4% in 2003 due to the above-mentioned negative factors, as well as the low investment interest which reduced by 7.3% for the same period. Generally speaking, the agrarian reform which took place in Bulgaria plays a significant role in the development of the agricultural sector since there are many problems rooted in it that still need to be overcome. Nevertheless, this period put the sector in an unpleasant situation with many challenging questions which needed to be addressed adequately and which the EU accession process tried to answer. In addition, many of these trends occurring in this period were probably partially related to the EU accession process (the market liberalization and the fall of the importance of farming to the economy), as they also fit with the EU CAP requirements.

3. The way towards Europeanisation: The EU accession process in Bulgaria and the Common Agricultural Policy (CAP) implementation

The preparations for the EU accession gave new hopes and expectations for the Bulgarian agricultural sector – expectations for the adoption of better and more appropriate agricultural practices that are not so harmful for the environment but also provide support for the marginalized rural areas of the country (Gatzweiler and Hagedorn 2003). As argued by Bencheva (2005) for Bulgaria the EU membership reveals a number of opportunities. In her analysis she observes some plausible scenarios and problems related to the EU membership before it² (Bencheva 2005). Some of the main problems she describes include

²Bulgaria joined the European Union in 2007.

the loss of traditional markets, but also the opening of new markets, the high EU requirements for standardization and the problem with the quota system management (Bencheva 2005). Her conclusions are related to the need to integrate and improve the national legislation while receiving a stable support from the EU (Bencheva 2011). However, Bencheva's conclusions were made before the country joined the EU, thus further analysis with up to date information is needed. Later in the thesis more focus on the EU legal documents and regulations will be put, as in this part some analysis on the main effects of the implementation of those policies will be made.

The main document related to agriculture and organic farming, which was developed during the EU accession process, was the Rural Development Programme (RDP) for the period of 2007-2013 (2009). The programme was made on the basis of the needs of the country, as well as the Lisbon and Göteborg documents and has the following three main objectives:

- To develop a competitive and innovation based agriculture, forestry and food processing industry
- To protect the national resources and environment of rural areas
- To improve the quality of life and diversify job opportunities in rural areas.

Another important document which was developed with the help of the EU is the Strategy and a National Action Plan for Development of Organic Agriculture for the period 2007-2013 (adopted in March 2007) and the National Agro-Ecological Programme for the period of 2007-2013. The main goal of the action plan is to encourage the research in the area of organic farming and to improve the legislation. Those and other documents were

developed in order to help the organic farmers in the process of development, organization and promotion of their production under the umbrella of the Common Agricultural Policy (CAP) of the EU. Over time, the CAP has gone through many changes in order to encourage sustainability in agriculture and has now become a “policy that helps agriculture to respond to the requirements of sustainable development” (EC 2012). However, the question on how efficient those policies and reforms are, is somewhat controversial. Generally speaking, the analysis of the effects, the accession process and evaluation and the CAP implementation for the new member states has been discussed by many and different authors (Bartolini *et al.*, Latruffe *et al.*, Manrique *et al.*, Schmid and Sinabell, Xueqin and Lansink, Sckokai and Moro and others). Nevertheless, Bulgaria has not been the focus on any of them and no comprehensive assessment of the impact of CAP on Bulgarian farms, has been made until Hrabrin Bachev, who works for the Institute of Agricultural Economics in Sofia, managed to bring together the knowledge of various experts and elaborate with it focusing on Bulgarian farms of different type and specialization (2011). His study focuses on effects on farm income, farm efficiency, farm competitiveness, sustainability of farms and impact of individual CAP measures on farms of different type. Some of his conclusions include that for cooperatives, firms, middle and large size farms CAP measures and EU policies in general, have “good” and “significant” impact. On the other hand, considering the fact that the focus of this thesis is precisely small-scale farmers and farms specialized in vegetables, it is important to point out that that for small-scale farmers and farms specialized in vegetables, the impact of CAP is “insignificant”, “neutral” or even “negative” (Bachev 2011). Moreover, the share of vegetables purchased and consumed is traditionally very high for the Bulgarian market and vegetables are indeed the main product

of small-scale farmers, thus the above-mentioned impacts on small-scale farmers is essential. Estimations made by Mladenova (2011) show that in 2005 the net income per farm per year is estimated to be 10 295 leva and in 2008 it decreased to 3 733 leva. All in all, the EU accession process included many and different reforms and changes in market and institutional environment such as enhanced competition or the introduction of higher standards, but generally the process was slow and the numbers of affected farms, as showed by Bachev (2011) was “insignificant”. Not only that but the analysis of Bachev (2011) also states that: “The level of adaptability of farms in CAP conditions shows that a quarter of the farms are with low potential for adaptation to new state and EU quality, safety, environmental standards etc., almost 37% are less adaptable to market demand, prices and competition, and every other one is inadaptible to evolving natural environment (extreme weather, floods, droughts etc).”

This conclusion from 2011 clearly demonstrates that the EU accession process and the CAP reforms are very often problematic and create many difficulties for the Bulgarian farmers. Another point of view regarding the EU policies on small-scale farmers in Eastern Europe has been presented by Diana Mincyte (2011) with a case study from Lithuania. In her work she focuses on the role of the poor, smallholder farmers in advancing sustainability in the new EU member states. Logically, old member states had enough time to evaluate the role of small-scale farming and negotiate the subsidies and regulations, Eastern European countries like Bulgaria, possess different characteristics and sometimes the EU reforms are contradictory for them. As Mincyte (2011) argues the integration of the new member states “has exposed the unstable groups of the EU’s agricultural development”. Nevertheless, the EU integration has also brought some positive changes for

example on sustainability related issues, since the CAP implementation generally tends to improve the environmental performance of commercial farms (Bachev 2011). And as argued by many and different experts (Mincyte 2011, Wilson and Rigg 2003, Ward 1993, Kaufmann *et al.* 2009) the EU regulations and reforms are providing support for the growth of certified organic and are working towards the diversification of rural economies and the inclusion of rural economies and communities. In addition, the special agro-environmental measure (Measure 214 from the Rural Development Programme) that was introduced in many new member states, including Bulgaria, is playing an essential role in the net income of the Bulgarian farmer who is dealing with organic farming. Further analysis of this measure, as well as the role of EU on organic farming will be developed later in the thesis. In this part, the focus was on the process of accession and some of the main problems that the country needed to face during that period.

4. Organic Farming in Bulgaria

“We will succeed, there’s no other way. We have been fighting for this for the past 10 years”

Veselina Pavlova, organic farmer from Dragomir (Plovdiv)

a. Current situation of the organic farming in Bulgaria

According to the National Plan for Development of Organic Farming in Bulgaria (NPDOF) the first steps towards organic farming in Bulgaria date back to the early 60’s, however the real rise of the sector started only about 15 years ago. The the first organic farm was started in 1993 as part of the Agrarian University of Plovdiv, (Bioselena 2012). Between 2000 and 2004 the establishment of a national organic legislation took place and the first certified organic farm was created. After the conference “Perspectives of the Organic Agriculture in

the Enlarged European Union” which took place in Plovdiv in 2003, the Ministry of Agriculture and Forestry (MAF) made the decision to elaborate a Strategy and National Plan for Development of Organic Farming. After those initial steps, over the last 10 years organic farming has emerged and the number of certified producers has increased significantly. For example, in 2012, the official number of members of the Bulgarian Organic Products Association (BOPA) increased three times (BOPA 2012). Generally, there has been a considerable growth in both organic farming producers and certified land which doubled between 2009 and 2010 (Fig. 4).

Figure 4. Development of the organic farming sector for the period 2002-2010 in Bulgaria

	2003	2004	2005	2006	2007	2008	2009	2010
Control bodies¹	2	2	2	2	6	10	10	10
Certified operators²	29	51	111	181	339	285	467	820
Certified organic land (hectares)	650	1'113	2'432	3'061	11'809	16'662	12'320	25'648
Areas for collection of wild plants (hectares)	-	-	-	110'143	397'835	397'835	401'426	546'195
Certified animals	-	-	-	1'514	3'101	4'565	8'939	9'952
Certified beehives	-	-	-	708	35'747	44'861	41'089	46'429

Sources: Data for 2002, 2003, 2004 and 2005: Bioselena. Data for 2006-2010: Ministry of Agriculture and Food of Bulgaria

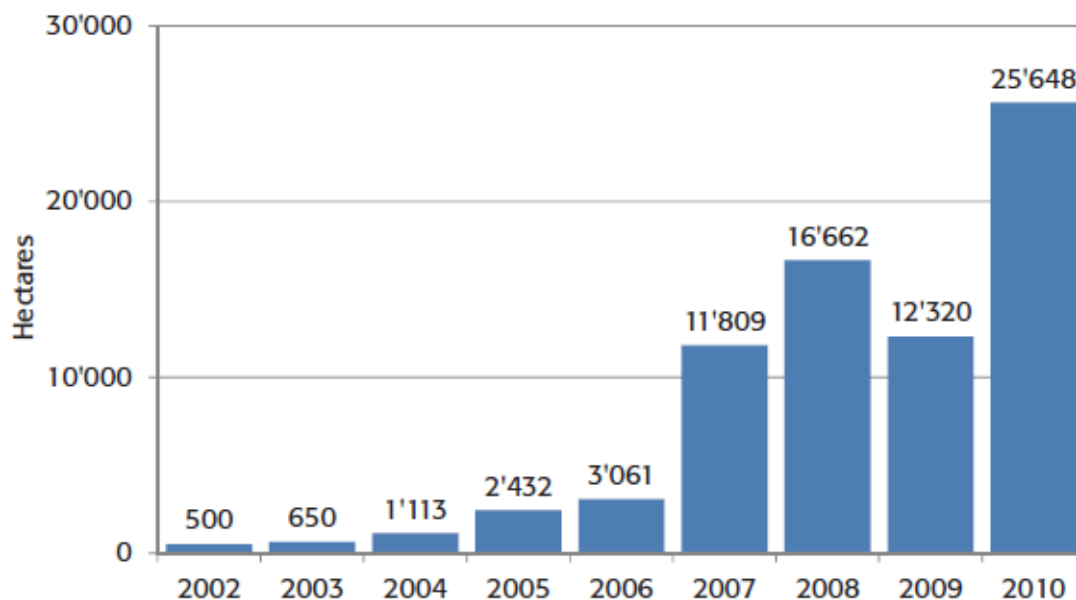
If we observe the political and financial frames of organic production in Bulgaria, as described in the NPDOF, we find only 3: The National Rural Development Plan, The National Strategy on Conservation of Biodiversity and the National Environmental Strategy. However, the NPDOF was developed only in 2006 when Bulgaria was still not part of the EU, thus the policy guidelines and financial instruments of today are a lot more

diverse. Now, we have the Biodiversity Act, Prevention of Negative Influence by Chemical Substances Act, Environmental Protection Act and many more legal documents related to environmental protection and organic farming. In addition, there is a special directorate in the Ministry of Food and Agriculture dealing with Organic Farming which is in charge of the national policies and regulations. But the most important documents are the National Plan for Promotion of Organic Agriculture for the period of 2007-2013, the Rural Development Programme for the period 2007-2013 and the National Agro-ecological Programme for Bulgaria for the period 2007-2013. Generally speaking, the EU agri-environmental support has been encouraging the conversion to and the continuation of organic production for the past 5 years (2007-2013) under the Rural Development Programmes of the EU in Bulgaria (Willer 2009). As Kayryakov (2010) suggests the conversion process in Bulgaria does not take too much time and conversion of two or three years are not uncommon, unlike in some other countries of the EU where the process can take up to five or six years. Generally, the procedure to become organic procedure includes the following steps: first the farmer have to submit his or her documents to a certification organization implying his or her desire to become an organic farmer, second, the certification body works together with the farmer and prepare a plan for conversion, followed by inspections by the certification body to see if the farm meets the requirements, the transition period starts. In Bulgaria, this period is two years according to the law, and during this type the farmers are obliged to follow all organic restrictions and regulations, but while in transition, the farmer is not allowed to sell his or her products as “organic”. Some of the young and well informed farmers usually try to seek for funding before starting this process and take advantage of the Measure 214 (Agri-ecological payments) or Measure

112 (Young Farmer) under the Rural Development Programme. Those payments last for five years and in order to benefit from the subsidies, the candidates have to be certified or in the process of certification. Another requirement is the size of the land they cultivate which is sometimes problematic for the small – scale producers.

Nevertheless, the number of certified organic farmers and certified land in Bulgaria keeps increasing. Figure 5 shows the increase in certified agricultural land in Bulgaria for the period of 8 years (2002 – 2010) reaching 25 648 ha land. It is interesting to compare those numbers with the last statistical information provided by the MAF: For the year 2012: there are 2 016 producers and in total 40 378.77 ha certified organic land (MAF 2013).

Figure 5. Development of organic agricultural land in Bulgaria 2002-2010 / Sources: Data for 2002-2005: Bioselena. Data for 2006-2010: Ministry of Food and Agriculture

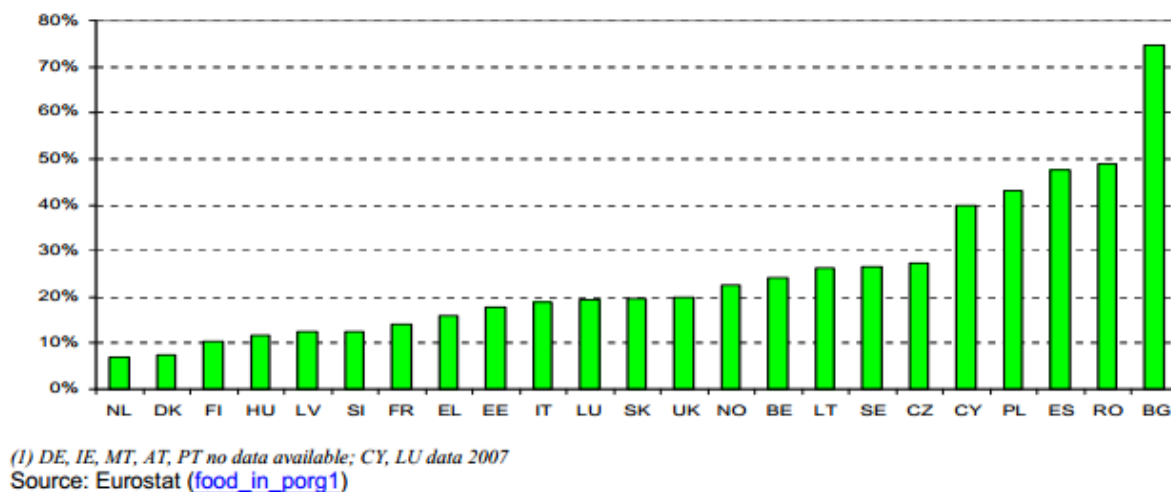


Since some more focus has been put on vegetable production in the current thesis, it is interesting to observe the numbers with organic vegetables. According to the official

statistics from the MAF (2013) the ones that are increasing are broccoli, lettuce, artichoke, tomatoes, cucumbers and mushrooms and the ones that are decreasing are beans, peas, onion, spinach and garlic. Consequently, most of the cultivated vegetables are increasing their production because of higher demand. There is also increased interest in organic honey, vineyard and walnut produced organically, as well as the typical for the Bulgarian traditions Rosa Damascene used for the production of organic rose oil.

In addition, in recent years many new NGOs working for encouraging organic farming production have emerged, as well as research institutes, certification bodies and university programmes. If we combine all of the above with the analysis made by Eurostat in 2007 regarding the potential for an increase in organic area (See Fig. 6), where Bulgaria

Figure 6 Potential for an increase in organic area in the EU (% of the area) 2008



is taking the first place within the EU with almost 80%, we can easily conclude that the potential and the interest in organic farming in Bulgaria is very significant and deserves special attention and further analysis.

All in all, there are many factors that could influence positively the future development of the organic farming sector in Bulgaria, such as existing legislation

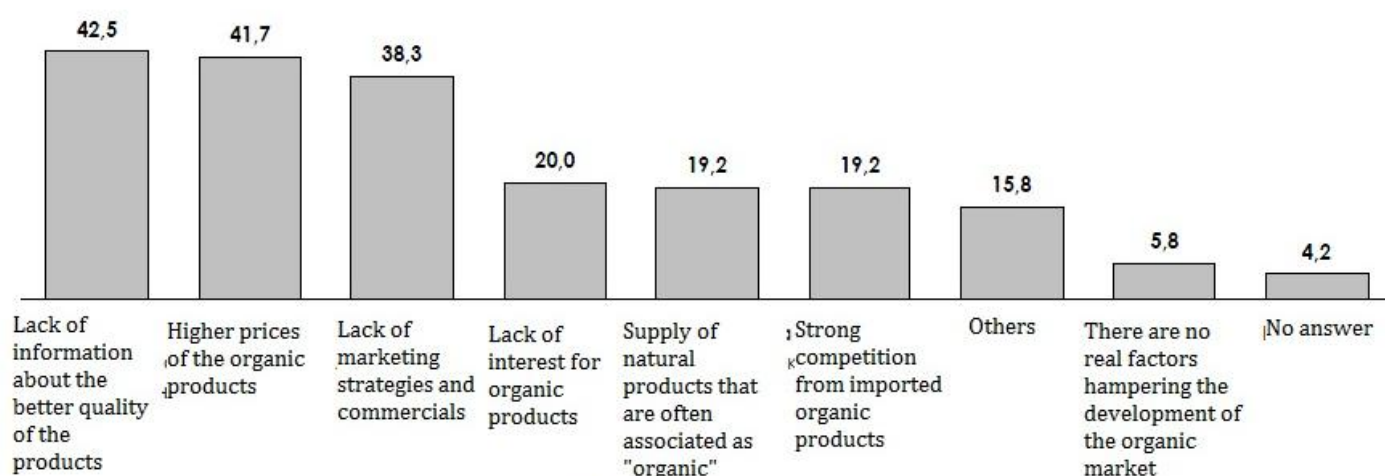
harmonized with the EU principles, actively working NGOs, increased interest in organic farming among young people (partially thanks to the “Young Farmer” Measure under the Rural Development Programme), competitive prices of the organic products in the international market, existing scientific knowledge and regional expertise, increase in organic certification bodies, but most of all motivation of farmers to promote and work towards the development of the sector. However, there are also some weaknesses in education, training or lack of information, not enough specialized literature in Bulgarian, legislative weaknesses, too much bureaucracy, institutional and financial weaknesses in the field of organic farming (delayed payments and difficult procedures for subsidies) and most of all lack of motivation among the institutions and the administration in general.

b. Current situation of the trade with organic agricultural products and foodstuff in Bulgaria

According to estimations made by Eco Qualify in 2010, in Bulgaria organic food purchases account for less than 0.5 % of the total food consumption and about 90% of the produced organic food is being exported to the Central and Western European countries, North America and Japan (Bioselena 2012). Nevertheless, the NPDOF has set ambitious goals aiming at increasing this percentage by working towards the following: until 2013 not less than 3% of all food and beverages products, sold in the country should be from organic origin, as well as at least 8% of the arable land in Bulgaria should be certified as organic. (Serdon 2011). However, the market of organic products in Bulgaria is underdeveloped mainly because of the unstructured supply chain of the organic products (Mishev and Stoyanova 2009). And although the domestic market has developed significantly for the past 5 years, and both supply and demand has shown a trend for increase, the domestic

market still stays considerably fragment and relatively small and as seen above the certified organic land for 2012 is far from the 8% goal. A survey made by Bioselena in 2011 indicates the main problems as described by the organic producers that the organic market is facing (see Fig. 7).

Figure 7. Factors influencing negatively the development of the organic market in Bulgaria - %



Source: Survey among 120 organic producers in Bulgaria. Bioselena 2011

It is visible that the main problem is lack of information and higher prices. This is also proved from another survey made by Vitosha Research in 2009 which suggests that the general public is lacking interest in organic products mainly because of several factors:

- 1) Insufficient bulk of information – usually consumers need more information about the origin of the product, the process of production or the benefits of consuming organic;
- 2) Lack of streamlined information supply – mass media has a very little influence on consumers' choice when talking about organic products (only 28,57%), most of all is first hand information provided by farmers, relatives or friends (32, 68%);

3) Insufficient knowledge about the nature of organic produce – due to lack of general information regarding what “organic” stands for, consumers find it difficult to distinguish between “organic” and “natural” products. For most of them (34%) organic products are products without chemical additives and preservatives and only 14% see them as products complying to certification standards and requirements. This is also visible from the lack of trust in organic products – about 83, 8% of the surveyed consumers do not trust producers’ methods;

4) Non recognition of organic products at the market: only 28% of the surveyed consumers actually look for the “organic” logo when buying a product, most of the consumers look for key words such as “eco” or “natural” and about 31% count on the fact that the product stays at the specialized stand for organic products. Overall, there are still many obstacles and gaps which need to be overcome in order the market to be more competitive and effective. As Serdon’s report (2011) suggests labeling and standardization are some of the main challenges that the sector is facing in front of its successful development in the coming years. The report also emphasizes the importance of promoting local products and thus encourages the development of the local market and informing the general public about the benefits of organic farming.

However, the survey was made in 2009 and since then, a lot more attention has been put on the sector and efforts on educating the consumers have been made by many NGOs, as well as the farmers themselves and the government. For example, the first organic market opened this summer first in Plovdiv and later on in Sofia. Milen Stoyanov, who is the managing director of the Bulgarian Association of Organic Products, see those market as the best option to educate the consumers, raise awareness and sell organic products from

Bulgaria. Moreover, many of the supermarket chains have recently started to sell Bulgarian organic products, as well as some restaurants started to offer organic menus. In addition, there is increased interest among young people who wish to become farmers and take part in many of the organized trainings for organic farming. Furthermore, the importance of straightening the role of the associations of all organic products through contractual agreements, stimulating joint marketing, advertisement and PR strategies, defending producers' rights or organize educational courses, could provide timely support for the organic market in Bulgaria. Another suggestion, discussed by Mishev and Stoyanova (2009) is to stimulate the consumption of organic products in public institutions, such as hospitals, schools, kinder gardens etc, although some experts support the idea that this act could conflict with the principles of free competition and some of those public bodies have limited budgets and thus could not afford to afford organic products. Another recommendation expressed by Mishev and Stoyanova (2009) in their analysis include supply of organic products and foods in specialized tourism (rural tourism, ecotourism etc) since it could increase the popularity of those products in their natural environment. It is interesting to mention here that in recent years this practice is becoming more and more popular in some rural areas of Bulgaria where people try to develop rural tourism and organic farming. An interesting example of such is the so called “Bamboo House” of Dimitar Stoyanov³ which not only offers accommodation but also provides visit to the organic farm of Dimitar, as well as fresh organic produce and biodynamic wine produced by him. This is only one of the several examples, where tourists could come to visit an organic farm, educate themselves and consume freshly produced organic products. In such

³ Dimitar Stoyanov (also known as Chicho Mitko /Uncle Mitko/) is an organic (and biodynamic) farmer, lecturer and a well known leader of the organic movement in Bulgaria

manner, the tourism sector combined with organic farming could provide better opportunities for sustainable development of the rural areas in Bulgaria.

Overall, there are many and different paths that the organic farming sector in Bulgaria could take, however, they all need to be well justified and work towards not only developing the sector and increasing the profit, but also protecting the environment and achieving sustainable development in the rural areas. Since Bulgaria has such great potential for this sector, organic farming could indeed provide great opportunities for business development for small-scale farmers because of its high quality products and good appreciation in the European and global market.

CHAPTER 3: ANALYSIS OF CURRENT FARMING PRACTICES AND THEIR RELATIONS TO SUSTAINABILITY

“When you are dealing with organic farming, you adopt the whole philosophy – the philosophy of environmental consideration and respect for the Nature. Once you do that, you can never change it”

Dimitar Stoyanov, farmer, lecturer and a well known leader of the organic movement in Bulgaria

1. Theoretical Framework and Data Analysis

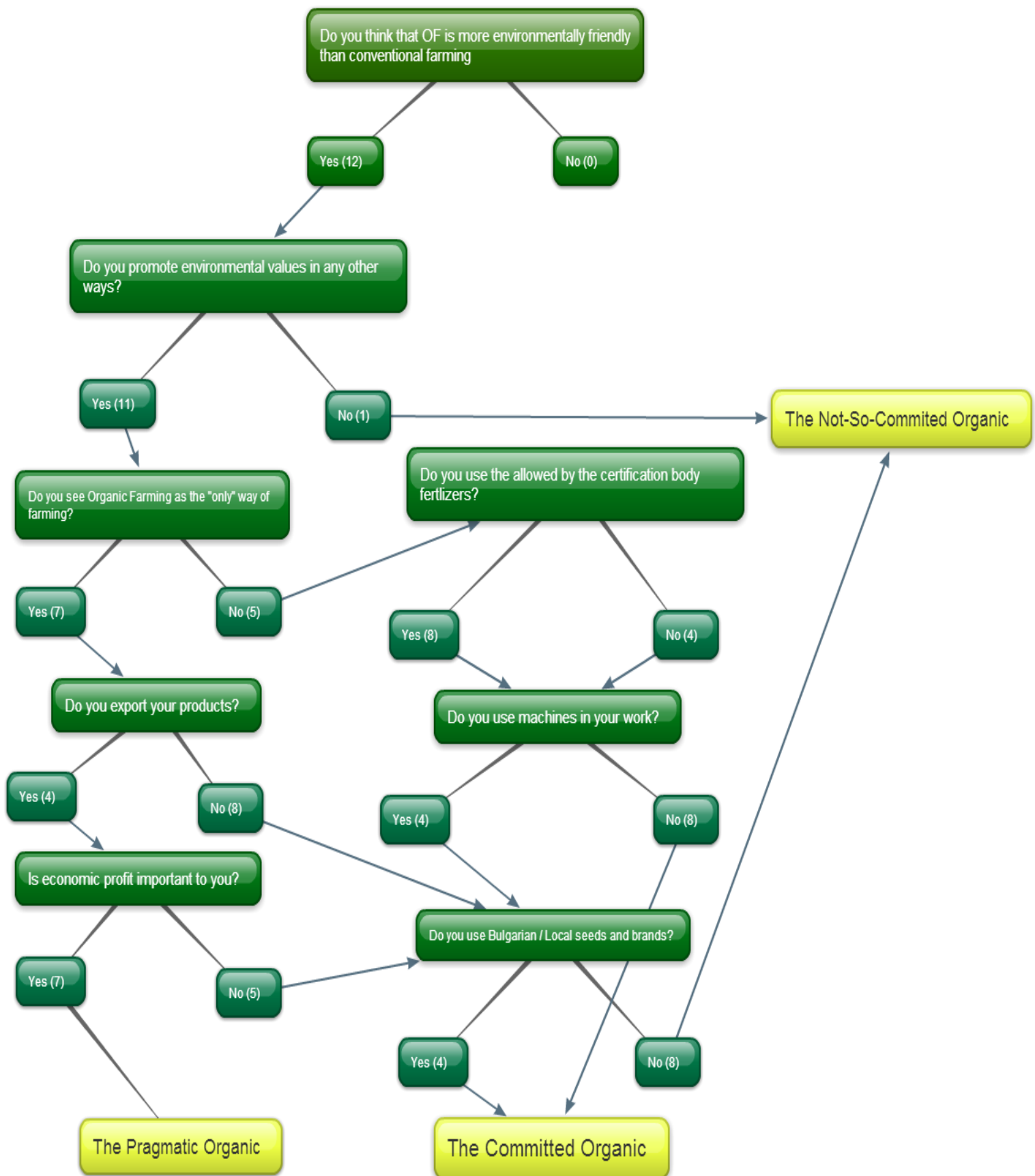
As said before, “the ethnographic decision-tree approach” will be used in this section and a custom model based on this approach will be developed in this chapter. The method - personal interviews with farmers, has been used by many and different authors (Vogel 1995, Buck *et al.* 1997, Lockeretz 1997, 1999, Duram 1999, 2000, Fairweather 1999, Kaltoft 1999, Guthman 2000, Lund *et al.* 2002) and this is the reason why it was chosen as the most appropriate. Generally, these types of research are detailed and as noted by Darnhofer *et al.* (2003) provide a good picture of the decision – making process and the various factors that motivate the farmers, as “they concern the actors themselves as well as the structural factors in which they are embedded”. Furthermore, the farmers that I interviewed were not aware that my research is on their motivation and thus we could assume that they could freely speak about it without being influenced by the purpose of the study. Likewise, one of the main advantages of this method is its hierarchical theory of choice which, as noted by Gladwin (1976), assumes that the decisions are divided into steps in order to ensure that the options are compared sequentially using a number of factors and aspects. In this case the decision criteria are formulated as questions which shape the decision tree and which allow us to group the different types of organic farmers. While I was doing the interviews, the questions were posed in a discrete way and were usually not

so direct, which after that allowed me to combine the criteria into the following decision-tree (Fig. 2). The tree allows each individual to follow the movement of the farmers' choices downwards through a series of criteria while it reaches its final point.

Based on the decision-tree which was adapted from Darnhofer *et al.* (2003) and Fairweather (1999) (see Figure 8), we identify three main groups of organic farmers - “the committed organic”, “the not-so-committed organic” and “the pragmatic organic”. In Figure 6, the number in the parentheses next to “yes” and “no” answers shows the number of farmers from the test sample who selected this particular answer. The total number of interviewed was 12 organic farmers, the interviews were held in person which allowed me to listen to their explanations on the questions posed. Generally, the questions were developed carefully and include some of the main points that help us to characterize and group the farmers into categories.

Further explanations on each criterion is provided bellow, they were developed based on the works of Darnhofer *et al.* (2003) and Fairweather (1999). Some of the characteristics and questions that helped me to build the model were taken from the works of Darnhofer *et al.* (2003) and Fairweather (1999) and their models, other were developed based on the current situation in Bulgaria and for the sake of the research. Nevertheless, as said before, the sample size is quite small (only 12 farmers were interviewed), thus some assumptions were made regarding the answers received in order to group and categorize the farmers and analyze their motives.

Figure 8. Decision tree depicting the criteria considered in the grouping of organic farmers in Bulgaria



Criterion 1 was developed in order to assess whether the farmers believe in the very fundamental question of organic farming – that it is more environmentally friendly than the conventional farming. This question was selected as the beginning question because it allows the farmers to start explaining further why they believe so and draw other conclusions from what they are saying. And indeed, all interviewed farmers were convinced that conventional farming is extremely harming for the environment and organic farming is not: *“Conventional farming is bad for the soil. And after all, we need this soil in the future too, so maybe we need to do something to protect it”* says Peter Dimitrov, a farmer from the region of Sofia. Eli Ilieva adds to this by highlighting that *“The fertility of the soil is decreasing and if we continue to farm like this, in the next 50 years or so, we would not have land to cultivate”*.

Criterion 2 refers to the idea that organic farming could go hand in hand with promoting environmental values in many other ways. From the 12 interviewed farmers, 11 said that they are trying to promote the idea of protecting the environment in other ways. This was also visible from the way they were talking about Nature - *“The contact with nature gives you something special that nothing else can give you”* says Stoil Ivanov, or the way they explain the importance of involving young people - *“A lot of young people are interested in organic farming and are looking for help, advice and expertise from me”* highlights Dimitar Stoyanov. In addition, some of the farmers explain that they often organize study visits, workshops, seminars or just informal meetings with their customers or with the communities and try to inform more people about the benefits deriving from organic farming. This result makes us believe that organic farming could also be used as a tool for promoting environmental values.

Criterion 3 select farmers for whom organic farming is not only a job, but also a philosophy which proves that organic farming is actually the “only way of farming”. This question was designed to provoke more discussions about the benefits of organic farming and possible future scenarios for the Bulgarian agricultural sector and for farming in general. In this regard, Dimitar Stoyanov highlights that *“We (Bulgaria) have the educational institution, we have the natural resources, we have young people who are willing to do it, and we should all work together for the cause “organic farming” because it is “the right way” of farming”*. Milen Stoyanov adds to this by saying that *“Organic farming is the future of agriculture”*.

Criterion 4 and Criterion 6 refer to the use of allowed fertilizers and manual labor and select farmers for whom higher yields are important, thus they are using some fertilizers and pesticides which are allowed by the certification body, and are hiring people. All in all, organic farming is generally considered to be more labor intensive than conventional farming. Nevertheless, most of the interviewed farmers were cultivating their land along with their family and were not using other people, in the case of some farmers, they were simply cultivating too much land and were not able to do all the work manually or alone, and thus they decided to use machines or hire people. However, those farmers still take into consideration the needs of the soil and try to decrease the harm to the environment they cause. Furthermore, this also raises the question of organic farming as a solution to the depopulation of the rural areas and the above mentioned endogenous model concept, since organic farming indeed requires more labor for a longer period of time than conventional farming. Eli Ilieva is cultivating in total around 360dka of organic rye and milk thistle and she says *“For a period of twenty days, I hire 25 people, I provide food and work for them.*

In comparison conventional farming would use big machines and less people for a shorter period of time. Organic farming indeed provides more jobs and could be a solution for the depopulation in the rural areas.”

Criterion 5 is designed to identify farmers who are exporting their products outside Bulgaria and those who are selling their products in the internal market. Although according to the official statistics about 90% of the organic production is designed for export (Bioselena 2012), the focus of the current thesis is on small-scale farmers which usually do not export their products and thus the results from the research shows that only 4 of out 12 farmers export their products. One of the main reasons is that small-scale farmers have problems with the quantity demanded from companies outside of Bulgaria. *“If I want to export, I need to fill one truck with vegetables. How could I produce so much at the same time? I am trying to provide diversity for my customers, I do not have that much quantity, and for me quality is more important than profit „says Stoyan Simeonov.* On the other hand, farmers who produce more, like Eli Ilieva, explains that her production is designed only for export because of the prices that the outside market offers - *“For my milk thistle the price that Biopharma⁴ offers me is 0,80 Euro per kilogram, and I am selling it in Germany for 5 Euro per kilogram. Of course, I want to keep my production in Bulgaria, but I also need to cover my expenses and run a business”.*

Criterion 7 is essential because it indicates the farmers for whom economic profit is important, thus this criterion seeks to identify farmers for whom the income is not a

⁴ Biopharma is the one of the biggest pharmaceutical companies in Bulgaria and has successful presence in both Bulgarian and Italian market.

primary goal but the environmental impact of their production methods, health or ethical issues are more important. More than half of the interviewed farmers (7) said that economic profit is important for them. This could bring us to the conclusion that environmental or other values are important for only 5 of the interviewed farmers, however, this is not always the case. Many of the farmers simply explain that economic profit has become their goal recently since they have been investing money for too long without having profit, and in order to sustain their farms, now, they need to reorganize their priorities. *“For the last 5 years, I have not managed to realize profit, I only manage to cover my expenses, but no profit...”* says Milen Stoyanov. Some farmers explain that the market in Bulgaria is not yet developed and they find it difficult to realize their products on it. Others like Eli Ilieva blame the government and the delayed procedures for subsidies for their economic losses – *“Basically the government helped me to go bankrupt. I received my subsidies two years after I applied for them”*. Overall, even if farmers talk about economic profit and its importance for them, this does not always mean that this is their highest priority.

Criterion 8 is designed to select farmers who are truly committed to the concept of organic farming and also the importance of using local seeds and brands. Stoyan Simenov, for example, argues that farmers should try to preserve the local diversity and the government should also focus on keeping the traditional breeds and seeds. He also says that is trying to feed the Bulgarians with “Bulgarian tomatoes, because they are clean, healthy and tasty”. On the other hand, some farmers focus on their production methods more than on the seeds they have and prefer to stick to the varieties they have and know how to cultivate rather than experimenting with “forgotten” brands and seeds.

As already mentioned, the total number of interviewed farmers was 12 organic farmers out of which 5 were categorized as “committed organic”, 3 are “not-so-committed organic” and 4 are classified as “pragmatic organic” according to the built decision-tree (See Fig. 3). Based on the data collected, those three types of farmers were identified keeping in mind that each of them possesses specific rationale which motivates the farmers. Their detailed descriptions are explained bellow:

The Committed Organic (5) – this type of farmers are deeply convinced in the concept of organic farming and its philosophy which is based on the idea of coexistence between people and nature and includes not only general consideration for nature in farming, but also synergy between improved conditions for soils and agricultural surplus. The “Committed Organic” Veselina Pavlova from the region of Plovdiv adds to this by talking about soil fertility management: *“When you farm in harmony with the Nature, the soil is evidently becoming better”*. Another “committed” farmer is Dimitar Stoyanov from Bachkovo who says that *“When you are dealing with organic farming, you adopt the whole philosophy – the philosophy of environmental consideration and respect for the Nature. Once you do that, you can never change it”*. Farmers of such type usually seek to create nutrient cycles and try to improve the health of their soil. In addition, they are well-informed and aware of the available literature and often rely on the works of Steiner (1924), or other fundamental authors. In addition, as noted by Darnhofer *et al.* (2003) they usually adapt their crop and manage their soil aiming at overcoming the challenges they face, while remaining true to the philosophical concept of organic farming.

“Life is in healthy food, healthy soils, clean water and clean air and organic farming is taking into consideration all that. It not only keeps the biodiversity as it is, but it

increases it. On my 3dka of land, I have more than 65 types of plants, which coexist together in harmony.”

Dimitar

Stoyanov Farmers of this type are usually “pioneers” and make their own compost (either by worm composting or in cooperation with neighboring farms who provide them with cow manure) and produce their own biological pesticides from nettle or other plants. Mostly, they are very active in the organic movement and usually try to promote the concept of organic farming in many ways – lectures, seminars, workshops, meetings, group discussions etc. This can also be seen from the words of Veselina Pavlova who says that “*If I convince one person that organic farming is the “right” way of farming, then I have achieved something good today*”. Furthermore, “committed” farmers believe in the laws of Nature, and usually the motivation for them to be organic farmers is mostly for ethical, health or environmental considerations. Nevertheless, some of them also mention the importance of keeping the Bulgarian seeds and varieties (Milen Stoyanov 2013) or see organic farming as “the way to restore Bulgarian varieties and keep the soil healthy” (Veselina Pavlova 2013). Likewise, many of them talk about the importance of healthy food: “*Healthy food equals health. I needed healthy food, so I started producing my own*” explains Stoil Ivanov or the importance to obey the laws of Nature: “*The nature is wise, much wiser than we are; we only need to trust it*” says Milen Stoyanov. And finally, for this type of farmers economic profit is not that important as they are often ready to risk foregoing some of their income.

The Pragmatic Organic (4) – for this type of farmers environmental or ethical concerns are not the most important ones. Usually those farmers are putting economic profit

as their priority. Nevertheless, they still follow the regulations imposed by the certification bodies, but for example are using machines in their work or are using the allowed fertilizers. Some of those farmers have decided to convert to organic farming driven by financial motives and not so much by environmental values. However, those farmers are sometimes new and are still not aware of all the principles behind the concept of organic farming or are still experimenting with new ventures as they are looking for ways to increase their yields or increase their economic profit. This idea is also discussed by Milen Stoyanov who says *“We still have the freedom to experiment and try to increase the yields. But very soon, we shall no longer have this privilege”*. On the other hand, in the case of Bulgaria, export of the production represents a big problem, since many farmers want to sell their products in Bulgaria but, as mentioned before, the prices and the conditions that the EU market is offering them are much better, thus forced by the circumstances they choose to export although they say that feeding people from Bulgaria with healthy food is important for them. Furthermore, the Bulgarian market is not yet well developed and there are simply not so many opportunities for farmers to sell their products. Another problem that “pragmatic” farmers talk about is the lack of processing factories in Bulgaria and the lack of possibilities to process the products and create added value for the Bulgarian market. Sometimes the produce is designed for processing and when there is no company processing this product in the country, the farmer is simply forced to export it. *“Unfortunately there are still not so many people who are willing to invest in processing and the products that we have are being exported and then return to Bulgaria with prices three times higher.”* explains Metodi Metodiev.

The Not-So-Committed Organic (3) – This type of farmers are usually committed to environmentally friendly practices but are also interested in increasing their yields from organic farming. They often do not believe strongly in the concept of cooperation between Nature and man and see the soil only as a source of income which needs to be threaded in a way that ensures that it will continue to bring profit. For them the money received from the Agri-Environmental Measure (Measure 214) represent a significant amount of their income and also plays a great part in motivating them to work within the organic sector. Nevertheless, they still follow the regulations imposed by the certified bodies but are “not-so-committed” to the idea of organic farming. Usually each of them has its own practices which are aiming at meeting specific environmental or economic needs. This category has some similarities with “the pragmatic organic” in terms of the economic interest, however “not so committed organic” are also not very aware of the benefits that derives from organic farming nor are aware of the concept “organic farming” and its main principles. For most of them, organic farming is just business and a way to make profit.

2. Motivation of the farmers

“Whatever a man is doing he should not be ashamed of it. On the contrary, he should be proud, that is exactly why I am an organic farmer”

Dimitar Stoyanov, a pioneer of the organic movement in Bulgaria

In the next section, some special attention will be put on analyzing the motivation of the interviewed organic farmers based on the works of Catherine Devott (2006) who researched how individuals arrive at the decision to adopt organic farming in Ireland and Susanne Padel (2001) who based her work on a large number of studies from several different countries. Padel’s work focuses on the assumption that farming related motives

and personal motives are prominent when talking about overall motivations in converting to organic farming. Padel (2003) also highlights that farm related motives are connected to husbandry, technical reasons and financial motives and finally, the personal motives are divided into concerns about personal health and general concerns (See Fig. 9).

Figure 9. General Motives in converting to organic farming. Adapted from Padel, S. 2001

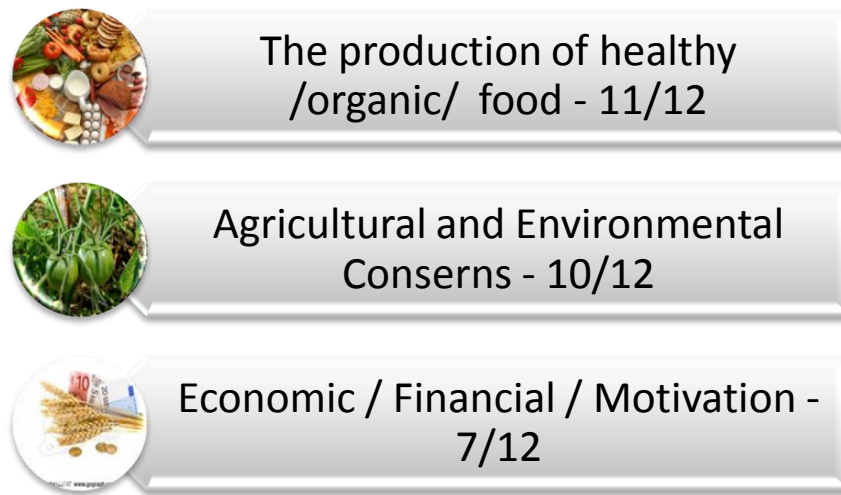


According to the model developed by Padel (2001), concerns about animal health and welfare, as well as soil fertility and erosion are listed under the husbandry and technical reasons, desire for security, cost savings, the availability of a sound market and general concerns about finances are under the financial reasons for converting to organic. As for personal motives, personal health reasons include concerns about health problems and clean food, and the general concerns include environmental values, rural development, food quality and preservation of the natural environment (Padel 2001). All in all, farmers usually have more than one reason to become organic and none of the listed motivations prevails. Also, as Padel (2001) argues very often motivation changes over time depending on various factors. For example, as discussed before, the financial motivation could become a priority if a farmer has already invested too much and is not trying to maximize his profit in order to cover his expenses, or concerns about personal health could evolve over time. Eli Ilieva, for example, used to be a conventional farmer but she decided to switch to organic because of the harm that chemical pesticides are causing: *“I was using too many pesticides until*

once I looked at the poisonous toxic skulls on the labels. They were so many and I kept thinking that I am feeding my child with that.” Generally speaking, the gathering of information is very important in the process of conversion *“My way of thinking evolved and I came to realize that I do not want to harm the environment anymore”* says Lozan Miladinov. Usually the process of conversion is connected to a lot of new information which could also change the motivation of a farmer. Moreover, as discussed by Devitt (2006), “knowledge is usually acquired through interactions with other organic farmers, organizations and by general reading of relevant literature concerning organic production”. This is also proved by the words of Veselina Pavlova – *“I started reading all the available literature on organic farming until I understand what exactly am I suppose to do. And now, I feel like I am an expert and I can help other farmers in their search for the right path.”* And Lozan Miladinov adds to this by highlighting that *“We are not poor for organic farming, we are just not well informed.”*

As said before, farmers usually have more than one reason to become organic and none of the listed motivations prevails, nevertheless, some reasons were demonstrated more than one time in the interviews with the organic farmers from Bulgaria, thus the following graph was created (see Fig 10). It illustrates how many of the interviewed farmers mentioned the following motivation in their interviews. The categories were made using the works of Catherine Devitt (2006). She argues that motivations in converting to organic farming usually include 1) a desire produce organic (healthy) food, 2) agricultural and environmental concerns, as well as financial / economic motives. She also says that each of the motives is “interlinked to the respondent’s cosmological understanding of the organic community and what it means to be an organic farmer...” (Devitt 2006).

Figure 10. Main reasons to become organic farmers as expressed by the interviewed farmers/ Adapted from Devitt, C. 2006.



The production of healthy /organic/ food was mentioned by 11 out of the 12 interviewed farmers. In addition, all the interviewees also expressed concerns about the way food is produced in general, emphasizing the intensive food production, genetically-modified organisms (GMOs) and the imported products. *“We need to forget about all the chemicals used in conventional farming, they are not helping, they are only harmful”* says Milen Stoyanov. Some of the farmers also mention the importance of producing healthy food for their own needs and for the needs of the Bulgarian market.

Agricultural and Environmental Concerns were expressed by 10 out of 12 interviewees. These were explained as the need for managing the land in an environmentally friendly manner (crop rotation, soil fertility management, elimination of potential toxic chemicals from pesticides, herbicides and fertilizers, use of legume as a prime source for Nitrogen, application of biological fertilizers, storage of water and others), but also farming as an example to others (seminars, teaching and involving the youth, lectures, seminars and workshops with other farmers, discussions, organization meetings

etc). As discussed by Devitt (2006), farming as an example not only shapes the identity of the farmers as an organic farmer but is also “connected to the love of farming and an attempt to promote the organic movement” - *“Once you get used to the plants, you start to hear them and really feel them”* says Stoil Ivanov about the love to farm.

Economic and Financial Motives were mentioned by 7 out of 12 farmers. In this sense, they include support from governmental and EU subsidies or other rural development grants, but also interest in economic profit and recognition of the growing market potential. All in all, each farmer is realizing his or her products on a market, is interested in the relationship between supply and demand, and is thus interested in not only adopting specific farming methods but also specific economic behavior in order to sustain himself. *“I am still looking for the best economic solution to run my business”* says Lozan Miladinov.

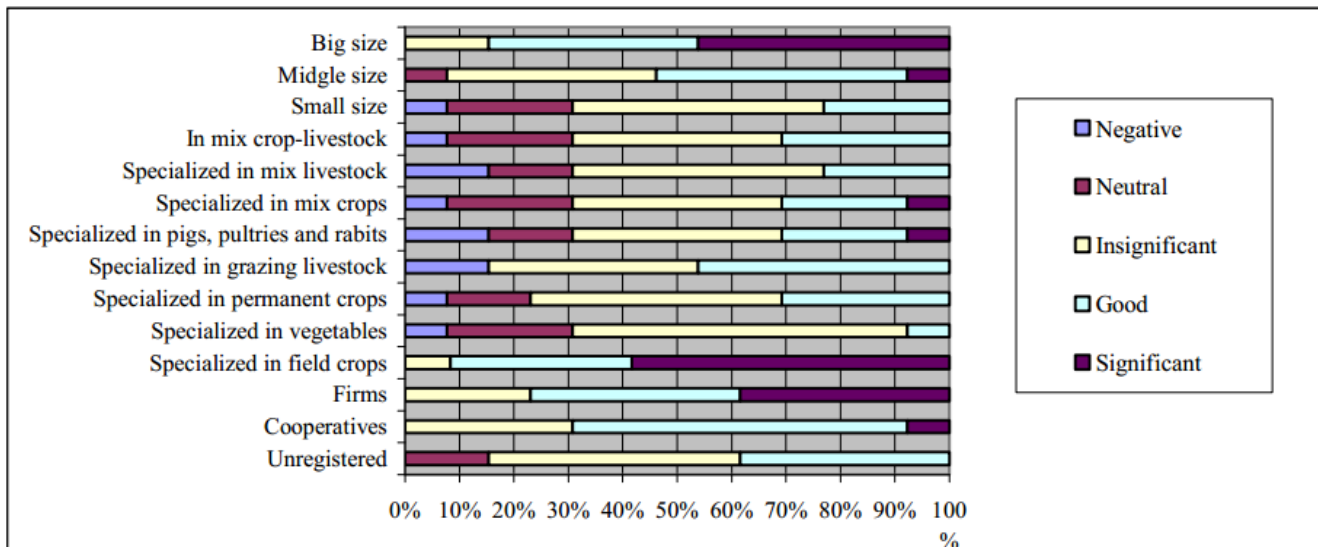
3. The role of the EU

Generally speaking, the role of the EU on the development of Bulgarian agricultural sector, and organic farming is significant, since after Bulgaria joined the EU, its policies are shaped according to the Multifunctionality model of the European Agriculture and the

Figure 11. Impact of CAP on income of Bulgarian farms / Source: Bachev, H. (based on expertise with leading experts) 2011

CAP. Therefore, the direct payments and EU subsidies have already become a significant part of the net income of some farms, however, the vegetable producers, which are the focus of this thesis, are usually not among those that are significantly positively affected by CAP (see Figure 11).

Although the one of CAP's priorities is indeed organic farming, very often in Bulgaria the



money envisaged for the farmers do not reach them. For instance, according to the official statistics from MAF (2011) only about 24% of all farms received area based payments, however less than 7% of the beneficiaries receive more than 80% of the direct payments. This problem has also been discussed by all the interviewed farmers. Many of them mention that for them it is easier not to bother to ask for subsidies, as the process is usually too slow and bureaucratic and the money are not worth it. Eli Ilieva, for example, says that she received her subsidies two years after she applied for them, thus her business was unsecure because she was actually counting on those money. Besides the direct payments that farmers could receive, the EU is also providing money for new equipment or other needs through the second pillar of the CAP – the Rural Development Programme. Moreover, after the 2003 CAP reform, the EU has a new prominent framework which encourages the future development of the organic farming sector and has provided a range of instruments for financing the sector. One of those new instruments is the introduction of Measure 214 – “Agri-environmental payments” which was a great step towards promoting organic farming

in Bulgaria. This is so far the most recognized measure from organic farmers and very often the only source of subsidies. According to Bachev (2011) the impact of Measure 214 is considered to be “good” for large scale farms, cooperatives and farms specialized in field and permanent crops. However, the official statistics from the MAF is not very optimistic - in 2010 the percentage of approved projects was only 4, 45% of the preliminary estimated number (with 1781 approved projects) which is generally an increase comparing to 2008 where it was only 2,80%, but is still very little. Just for comparison, for measure 212 (Payments to farmers in areas with handicaps different from mountainous) the percentage was 107, 85% which means that it was filled to overflowing and only proves that the interest for organic farming related projects is still not very big.

Furthermore, from the interviews held with the farmers, and some other experts, I had the impression that those subsidies are a hope and desire, but still not a real help and support for the farmers. Whenever I asked wheatear or not they have applied or received any financial support from EU, the reaction was always negative: *“I tried once and then I realized that it is useless. It takes so much time and nerves and at the end all you receive is money to buy one organic fertilizer and that is about it.”* says Lozan Miladinov. *“To apply for subsidies?! And wait for three years, to receive this little amount of money? No, thank you. Do you know that in Greece the subsidies are three times higher than here... There is just no point to waste my time with bureaucracy; I rather take credit from the bank.”* says Stoyan Simeonov.

Overall, there are many and different problems with Measure 214 and the EU direct payments in general, which are being discussed by many NGOs including the Bulgarian Association of Organic Producers, World Wild Fund for Nature (WWF) Bulgaria, Bulgarian

Association for Organic Products and others. They all have different suggestions and recommendations for how to improve the policies implemented in Bulgaria and present them in different forums. Some of the recommendations include:

- 1) Introduction of a maximum amount of subsidies for farmers (this measure is aiming at solving the above mentioned problem that 80% of the subsidies were received by 7% of the farmers)
- 2) Elaboration of a new subprogramme “Organic Farming” under the Rural Development Programme. The main motives for this proposal, as stated by the Bulgarian Association for Organic Products (BAOP) (2013) are the fact that about 90% of the organic farms are in mountainous areas and unlike other sectors of agriculture, in organic farming most of the people are young and well educated and the need to support them is crucial.

All in all, most of the recommendations are based on the six main priorities that CAP has for the period of 2014-2020 (BAOP 2013): - Fostering knowledge transfer in agriculture, forestry and rural areas; - Enhancing the competitiveness of all types of agriculture and enhancing farm viability; - Promoting food chain organisation and risk management in agriculture; - Restoring, preserving and enhancing ecosystems dependent on agriculture and forestry; - Promoting resource efficiency and supporting the shift towards a low-carbon and climate-resilient economy in the agriculture, food and forestry sectors; - Promoting social inclusion, poverty reduction and economic development in rural areas.

Following those priorities and aiming at reaching the goals posed by the EU, the BAOP is suggesting that organic farming has favorable effect on the sustainable development of Bulgaria because of its 1) economic 2) ecologic 3) health and 4) social impacts (see Fig. 12), thus it needs to be encouraged and a special subprogram needs to be developed.

Figure 12. Organic farming impacts on sustainable development / Adapted from BAOP 2013



Chapter 4: Benefits and Problems occurring in organic farming certification practices and Conclusions

“The certified bodies are something like ecological police-mans”

Veselina Pavlova, an organic farmer from the Plovdiv region

1. History of certification. Main benefits from certification. Third party certification

In the 1970s and 1980s, organic certification was mainly voluntary and self-regulatory; usually the producers themselves were the one to develop the standards (Michelsen 2001, Gonzalez and Nigh 2005). At that time, the producers were not only developing the standards but also enforcing them through systems of peer review. This process was then known as “first party certification” and in some cases it was also combined with organic training and education (Gonzalez and Nigh 2005). Nevertheless, this type of certification existed at times when communities were relatively small and peer review was practically possible. Furthermore, at that time most of the producers and consumers were deeply convinced in the concept of organic farming, thus it was working efficiently (Nelson 2008). After the great emerge of the organic sector which started after the 1980s, the motivation of the farmers changed and became a lot more variable, thus the close relationship between consumers and producers, typical for the “first party” certification, was no longer valid (Nelson 2008). The ever increasing economic motivations for organic production, combined with the growth in the sector, practically made peer

reviews and “first party” certification impossible to exist and consumer trust in organic goods became a problem.

With the globalization of the agrifood network and the formation of the World Trade Organization (WTO) in 1995, the government agencies were the ones to be responsible for the development of the standards (Hatanaka *et al.* 2005). However, with the mainstreaming of the organic farming sector, the rise in private retailer standards and consolidation of the food retail industry, the need for new regulatory mechanisms for the safety and quality of food was visible and the responsibility has shifted to the so called “third party” certification (TPC) (Hatanaka *et al.* 2005). TPC as described by Deaton (2004) stands for “private or public organizations responsible for accessing, evaluating and certifying safety and quality claims based on a particular set of standards and compliance methods”. Moreover, as argued by Hatanaka *et al.* (2005) this certification provides assurance that the production process complies with the regulations and standards. In addition, the TPC is important because it provides independency from other participants that are taking part in the food production, such as retailers or suppliers (Tanner 2000).

Nevertheless, with globalization and the development of the food markets, and the government no longer capable of regulating the food that is being imported to their countries, the role of both international governmental bodies and international organizations and the private sector arise in standards settings, regulations and enforcement (Busch and Bain 2004). Furthermore, some supermarket chains have also started to develop their own standards and labels, thus the need for universal certification regulation increased. Generally, the consumers or retailers seek for products that comply with the international standards not only for the physical characteristics of the product, but also for the production

process, thus labels and certification systems are essential in providing this type of information to the public.

Currently, TPC is being used as an efficient tool for organic certification around the world, including in Bulgaria. As discussed by Hatanaka *et al.* (2005), its main benefit is the fact that it is independent from other actors and objective “since third party certifiers have no stake in the outcome of the transaction” and thus, TPC is viewed as more reliable than first or second party certification. Moreover, usually TPC involves the so called accreditation mechanism by international or national institutions that could be private or both private and public, thus there is another independent organization that ensures that the regulations are objective and efficient. The most popular ones include IFOAM, the Euro-Retailer Produce Working Group Good Agricultural Practices (EUREPGAP) and the International Accreditation Forum (IAF) (Hatanaka *et al.* 2005).

2. Certification in Bulgaria

In Bulgaria, in compliance with EC Regulation 2092/91, the MAF developed Regulation 22 and Regulation 35 that defines the main standards and conditions to implement organic crop and animal husbandry, plus labeling of the products and marketing and the standards for export and import of organic products (Eco Qualify 2010). The control organizations are legal bodies that need to apply the necessary documents to the MAF in order to receive accreditation to operate on the territory of Bulgaria. Furthermore, as described by Eco Qualify report from 2010, the minister needs to consult the Commission of Organic Agriculture (which meets twice a year) and discuss with them the eligibility of the control bodies. As for 2013, there are in total 9 certification bodies

accredited in Bulgaria, out of which only 3 are Bulgarian legal entities, and the other 7 are branches of foreign certification companies (See Fig. 13).

Figure 13. Certification bodies in Bulgaria / Source MAF



Generally, the interviewed farmers expressed positive thoughts about the work and the expertise of those organizations. Pavlin Pantov for example says *“They helped me a lot when I needed an advice on how to continue and what to do”*. When asked if the regulations are too high, most of the farmers said that the regulations are just about right *“They expect the normal things from us and feel responsible for what we do because the name of their organization is right next to ours. If we do something wrong, this means that they have not done their job, so it is logical to be strict and demanding and have regulations.”* explains Rumen Ivanov. The general expression from the interviews is that the cooperation between

farmers and certified bodies is good and the regulations are not higher than needed. When asked why they decided to become certified most of the farmers explain that some customers asked for proof that the food is indeed organic and other just explain that it is a manner of honor for them: *“I am proud to say that I was one of the first to become certified organic farmer in Bulgaria”* says Milen Stoyanov. Stoyan Simeonov, on the other hand, explains that the possibility to export his products is also important, as well as the fact that he can be distinguished: *“I was any way organic, so why not have the certificate and be able to export and be distinguished on the market”*. Moreover, farmers explain that when being in the process of conversion or when being certified, the fact that you have to report to the certification body is indeed very important. As Lozan Miladinov says *“If you do not need to comply with any regulations, you may decide to put some fertilizers thinking that a little amount will not harm much but if you have someone to be on top of your head looking at what you are doing and explaining to you the consequences of your actions, then the situation changes.”* Overall, most of the interviewed farmers see the certificate as a proof of their efforts and a way to be distinguished among the other producers that are claiming to be “eco” or “natural”: *“My neighbor also claims to be organic, but I see how he puts ammonium and other “nice” chemicals into his soils. That is why I need the certificate – to proof that I am not like him”* says Pavlin Pantov.

3. Critique of mainstream organic certification

Generally, there are some critiques against the mainstream organic certification that have been expressed by different authors. One of them is that the government seeks to institutionalize the organic farming by creating standards “they wrench the production practices free from [the ideological content of the movement] and slot them into a different context in which they do not

in fact fit at all easily” argues Tovey (1997). Another critique made by Allen and Kovach (2000) suggest that “flat or failing profits that result from competition will tend to force farmers, input suppliers, processors and retailers to speed up production, cut costs and increase the rate of product sales”. Mutersbaugh (2005) adds to this by saying that “lowest common denominator” minimizing protections in national standards and displacing more comprehensive network-based standards”. However, most of those critiques do not refer that much to the situation in Bulgaria at the moment, as the sector is still in the process of development and has not reach this stage where the above mentioned problems could occur. Nevertheless, another critique stated by Raynolds (2000) implies for the Bulgarian situation, as it explains how the mainstream organic certification makes the organic label certification inaccessible to small scale, low income producers. And truly, for many small scale farmers in Bulgaria the organic certificate is something that they could simply not afford, as the process usually takes from two to three years and during that time the farmer is not allowed to sell his or her products as organic, plus very often the soil is not very productive as it needs time to be cleaned from the used chemicals in the past. As a result, there are many small scale farmers in Bulgaria that are farming organically but do not possess the official recognition for that and could not afford the money to obtain it.

CONCLUSIONS: *The role of Organic Farming in quest for sustainable agriculture in Bulgaria*

Following the concept of the Endogenous model and taking into account the motivation of the interviewed farmers, it is logical to believe that organic farming could and should play an essential role in the future sustainable development of the Bulgarian agriculture. The results from the analyzed data show that most of the farmers are truly committed to the concept and are actively working for promoting environmental values and

encourage organic farming in general. The increased interest in both governmental and non-governmental institution in the sector, combined with the increased interest among young people, is a positive sign for the future sustainable development not only of the Bulgarian agriculture but also of the rural development. Based on the works of Sortino and Chang Ting Fa (2009), which were discussed above, we could conclude that organic farming can have a pivotal role in meeting the needs of healthy food, that is not harmful for the environment, but also meeting other equally important demands placed in the rural communities, such as, producing healthy typical food, rural tourism, environmental awareness and preserving the local landscape, biodiversity and traditions. Therefore, the diversification of rural economy and the development of organic agriculture are essential development trends, which need to be strategically devised to transform the relationship between urban and rural into a sustainable multifunctional alliance. Furthermore, the fact that most of the interviewed farmers expressed hopes for the future development of the sector, combined with the active role of the NGOs in providing expertise and the professionalism of the certified bodies, bring us to the conclusion that all of them will be actively involved in shaping the future agricultural policies in Bulgaria, hopefully with the financial help and guidance of the EU.

Appendix

Questions / Sample Questionnaire

For the decision – tree:

Do you think that organic farming is more environmentally friendly than conventional farming?

Do you promote environmental values in any other ways?

Do you see organic farming as the “only” way of farming?

Do you use the allowed by the certification body fertilizers?

Do you export your products?

Do you use machines in your work?

Is economic profit important to you?

Do you use Bulgarian / Local seeds and brands?

Other general questions asked:

How did you decide to start farming?

Why did you switch to organic?

What was your motivation?

How would you characterize your farming methods?

What were some of the difficulties you had in the process of certification?

Do you think that the investment you made is paying off?

Do you think certification is problematic or beneficial for the agricultural sector in Bulgaria?

Where do you sell your produce?

Do you produce what you want or what the market demands?

What are your relations with the customers?

Do you think that you promote environmental values?

How do you feel about the governmental policies aiming at encouraging the sector?

What about EU subsidies and programmes?

How do you feel about EU policies aiming at encouraging organic farming?

What kind of role do you think organic farming plays in the Bulgarian agricultural sector?

List of interviewed farmers:

- 1) Dimitar Stoyanov
- 2) Eli Ilieva
- 3) Ilia Pchelarov
- 4) Lozan Miladinov
- 5) Metodi Metodiev
- 6) Milen Stoyanov
- 7) Pavlin Pantov
- 8) Petar Dimitrov
- 9) Rumen Ivanov
- 10) Stoil Ivanov
- 11) Stoyan Simeonov
- 12) Veselina Pavlova

Reference list

Agrocompass.bg 2012. Interview with Vladislav Popov, Bulgaria has a strong potential to make organic farming a leading sector. URL: http://newthraciangold.eu/cms/folders/iva/Popov_gost.pdf [consulted May 2013]

Allen, P. and Kovach, M. 2000. The capitalist composition of organic: The potential of markets in fulfilling the promise of organic agriculture. *Agriculture and Human Values*. 17: p. 221-232

Arzeni, A., Esposti, R. and Sotte, F. 2001. Agriculture in Transition Countries and the European Model of Agriculture: Entrepreneurship and Multifunctionality, The World Bank

Bachev, H. 2011. Effects of EU CAP implementation on Bulgarian farms. *Munich Personal RePEc Archive*. Institute of Agricultural Economics, Sofia.

Bartolini, F., Latruffe, L. and Viaggi, D. 2011. Assessing the effect of the CAP on farm innovation adoption. An analysis in the two French regions.

Bioselena, 2012. The World of Organic Agriculture. Bulgaria: Country Report. Ed. Stoiko Apostolov, Bioselena URL: <http://www.organic-europe.net/1684.html?&L=0#c7226> [consulted March 2013]

Brown, J.F. 1970. Bulgaria under Communist Rule, Praeger, London

Buck, D., Getz, C. and Guthman, J. 1997. From farm to table: The organic vegetable commodity chain in Northern California. *Sociologia Ruralis* Vol. 37 p. 3-20

Bulgarian Organic Products Association (BOPA) 2012. News section. URL: <http://www.bgbio.org/> [consulted March 2013]

Busch, L. and Bain, C. 2004. New! Improved? The transformation of the global agrifood system. *Rural Sociology* 69 (3), p. 321-346

COM 2004. European Commission. Communication from the Commission to the Council and the European Parliament. European Action Plan for Organic Food and Farming.

Darnhofer, I., Scheeberger, W, and Freyer, B. 2003. Converting or not converting to organic farming in Austria: Farmer types and their rationale. *Agriculture and Human Values* Vol. 22 p. 39-52

Deaton, B. 2004. A theoretical framework for examining the role of third-party certifiers. *Food Control* December p.615-619

Devitt, C. 2006. Transition to organic farming in Ireland: how do organic farmers arrive at the decision to adopt and commit to organic farming methods? *Irish Journal of Sociology* Vol. 15.2 p. 101-113

Dobreva, S. 1994. The Family Farm in Bulgaria: Tradition and Change. *Sociologia Ruralis* 24, p. 340-353

Duram, L. 1999. Factors in organic farmers' decision making: Diversity, challenge and obstacles. *American Journal of Alternative Agriculture* Vol. 14 p. 2-10

Duram, L. 2000. Agent's perceptions of structure: How Illinois organic farmers view political, economic, social and ecological factors. *Agriculture and Human Values* Vol. 17 p. 35-48

Dzhabarova, Y. 2011. Perspectives for Sustainable Rural Development within Organic Farming. *Trakia Journal of Sciences* vol. 9. Suppl. 3 p 28-32

Eco Qualify 2010. Framework Analysis Report. Implementation of a Quality Assurance System for Training in Organic Food Retail – EcoQualify III. Under the Lifelong Learning Programme Leonardo Da Vinci Transfer of Innovation 2010-1-GR1-LEO05-03967

European Commission (EC) 1992. Council Regulation (EEC) N 2078/92 of 30 June 1992 on Agricultural Production Methods Compatible with the Requirements of the Protection of the Environment and the Maintenance of the Countryside. *Official Journal of the European Communities* vol. L 215 of 30.07.1992 p. 85-90

European Commission (EC) 2012. Sustainable Agriculture for the Future we Want. URL: http://ec.europa.eu/agriculture/events/2012/rio-side-event/brochure_en.pdf [consulted June 2013]

EUROSTAT. 2010. Agriculture and Fisheries. Area under organic farming increased by 7.4% between 2007 and 2008 in the EU – 27. Ed. Elisabeth Rohner-Thielen

Fairweather, J. 1999. Understanding how farmers choose between organic and conventional production: Results from New Zealand and policy implications. *Agriculture and Human Values*. Vol. 16 p. 51-63

Fejos, R.N. 2006. Transformation and Compliance with Food Quality Standards in Hungary and some Transition Countries during the EU Accession Process. Article for: FAO Enabling Environments for Agribusiness and Agro-Industry Development in Eastern Europe and Central Asia Workshop, Budapest, November 2006.

FiBL 2009. Organic Farming in Europe – A brief Overview. Prepared for the European Organic Congress “Organic Food and Farming in times of Climate Change, Biodiversity loss and Global Food Crisis”.

Food and Agriculture Organisation (FAO) 1999. Organic Agriculture, Item 8 of the Provisional agenda, Rome, Committee of Agriculture fifteenth session.

_____ 2012. World Agriculture: Towards 2015/2030. An FAO perspective. Mosier and Kroeze (1998), modified using Mosier et al. (1996). URL: <http://www.fao.org/docrep/005/y4252e/y4252e14.htm> [consulted May 2013]

Gatzweiler, F. and Hagedorn, K. 2003. Institutional Change in Central and Eastern European Agriculture and Environment. Document compilation for The Central and Eastern European Sustainable Agriculture (CEESA) Project, QLRT 1999-1611, 5th EU Framework Programme

Gladwin, C. 1976. A view of the Plan Puebla: An application of hierarchical decision models. *American Journal of Agricultural Economics*. Vol. 58 p. 881-887

Gladwin, C. 1989. Ethnographic Decision-tree Modelling. Sage University Paper Series on Qualitative Research Methods. Vol. 19 Beverly Hills, California: Sage.

Gonzalez, A. and Nigh, R. 2005. Smallholder participation and certification of organic farm production in Mexico. *Journal of Rural Studies* 21: p. 449-460

Guthman, J. 2000. Agrarian Dreams? The Paradox of Organic Farming in California. PhD Dissertation. University of California, Berkley

Halmai, P. and Vasary, V. 2007. Transformational Crisis, Transformational Depression, The Changing Agriculture The Hungarian Case. 104th Seminar, September 5-8, 2007, Budapest, Hungary. 7835, European Association of Agricultural Economists.

Hatanaka, M., Bain, C. and Busch, L. 2005. Third-party certification in the global agrifood system. *Food policy* 30: p. 354-369

Horrigan, L., Lawrence, R. S. and Walker, P. 2002 How Sustainable Agriculture Can Address the Environmental and Human Health Harms of Industrial Agriculture. *Environmental Health Perspectives* Vol.110, n 5, May 2002

Howard, A., 1947. *The soil and the health: a study of organic agriculture*. Devin – Adair Company, New York

Hristov, N. 2010. Organic farming went through the crisis without being damaged. Manager.bg URL: <http://2009.manager.bg/broi-137/ikonomika/biozemedeliето-mina-prez-krizata-bez-da-ya-useti> [consulted April 2013]

International Federation of Organic Agriculture Movements (IFOAM) 2005. The principles of organic farming. URL: http://www.ifoam.org/about_ifoam/principles/index.html [consulted March 2013]

Jackson, M. 1991. The Rise and Decay of the Socialist Economy in Bulgaria. *The Journal of Economic Perspectives*, Vol. 5, No. 4 p. 203-209

Kaltoft, P. 1999. Values about nature in organic farming practice and knowledge. *Sociologia Ruralis* Vol. 39 p. 39-53

Kaufmann, P., Stagi, S. and Franks, D. 2009. Simulating the diffusion of organic farming practices in two New EU Member States. *Ecological Economics*, Vol. 68. Issue 10, p. 2580-2593

Kayryakov, N. 2010. Development of organic farming in Bulgaria. *Trakia Journal of Sciences* Vol. 8, Suppl. 3. P. 147-152, Economics Department, Agricultural University – Plovdiv, Bulgaria

Kostov, Ph. And Lingard, J. 2002. Subsistence farming in transitional economies: lessons from Bulgaria. *Journal of Rural Studies*, vol. 18, p. 83-94

Kristensen, E. 1999. Environmental impacts from organic farming. Paper presented at the conference “Organic Farming in the European Union – Perspectives for the 21st Century”. Baden/Vienna 27-28 May

Lampkin, N.H. and Measures eds. 1999. Organic farm management handbook. Organic farming Unit, Welsh Institute of Rural Studies University of Wales, Aberystwyth, Organic Advisory Centre, Elm Farm Research Centre (Newbury)

Latruffe, L. Guyomard, H. and Le Mouel, C. 2008. Impact of CAP Direct Payments on French Farms’s Managerial Efficiency, Paper prepared for presentation at the 12th EAAE Congress People, Food and Environments: Global Trends and European Strategies, Gent, Belgium, 26-29 August 2008

Lockeretz, W. 1997. Diversity of personal and enterprise characteristics among organic growers in the Northeastern United States. *Biological Agriculture and Horticulture* Vol. 14 p. 13-24

- Lockeretz, W. 1999. Farm profile: Sörtporp, an organic farm in Sweden. *American Journal of Alternative Agriculture* Vol. 14 p. 37-41
- Lund, V., Hemlin, S. and Lockeretz, W. 2002. Organic livestock production as viewed by Swedish farmers and organic initiators. *Agriculture and Human Values* Vol. 19 p. 255-268
- Luttikholt, L. 2006. Revising the Principles of Organic Agriculture. The IFOAM Process. A worldwide, participatory process. ELM Farm Research Centre
- Manrique, E. and Zamudio, A. and Olaizola, A. 2008. The economic effects of the CAP reform on Aragonese sheep farms, Mediterranean livestock production: uncertainties and opportunities. Proceedings of the 2nd Seminar of the Scientific-Professional Network on Mediterranean Livestock Farming, Zaragoza, Spain, 18-20 May, 2006 2008, 127-132
- Marino, D. 1995. La politiche per lo sviluppo dell'agricoltura biologica Filiere ate sviluppo di aree collinari e montane: il caso dell'agrocultura biologica Pubblicazione raisa n. 2218 p. 25-62
- Mathijs, E. and Swinnen, F.M. 1998. The Economics of Agricultural Decollectivization in East Central Europe and the Former Soviet Union *Economic Development and Cultural Change* Vol. 47. No 1, p. 1-26
- McGregor, M., Rola-Rubzen, M. and Murray-Prior, R. 2001. Micro and macro-level approaches to modeling decision-making. *Agricultural Systems* Vol. 69 p. 63-83
- Michelsen, J. 2001. Organic farming in a regulatory perspective. The Danish case. *Sociologia Ruralis* 41 (1): p. 62-84

Mincyte, D. Subsistence and Sustainability in Post-industrial Europe: The Politics of Small-scale Farming in Europeanising Lithuania *Sociologia Ruralis* Vol. 51 p. 101-118

Mishev, P., and Stoyanova, Z. 2009. Supply chain of organic products in Bulgaria. Paper prepared for presentation at the 113th EAAE Seminar “A resilient European food industry and food chain in a challenging world”, Chania, Crete, Greece, data as in September 3 – 6, 2009.

Mladenova, M. 2011. Analysis of economic efficiency of farms with different specialization, Analysis and assessment of effects of EU CAP Implementation on Agricultural Farms, IAE Project, Sofia

Mutersbaugh, T. 2005. Fighting standards with standards: Harmonization, rents, and social accountability in certified organic agrofood networks. *Environment and Planning A* 37: p. 2033-2051

National Plan for Development of Organic Farming in Bulgaria 2007-2013 (NPDOF) 2006. Ministry of Agriculture and Food, Sofia

OECD. 2001. Organisation for Economic Co-operation and Development (OECD) 2001. Eenvironmental outlook to 2020. Paris, OECD

Padel, S. 2001. Conversion to organic farming: A typical example of the diffusion of an innovation? *Sociologia Ruralis*. Vol. 41 p. 40-61

Paull, J., 2006. The Farm as Organism: The Foundational Idea of Organic Agriculture Elementals. *Journal of Bio-Dynamics Tasmania* 83:14–18

Raynolds, L. 2000. Re-embedding global agriculture: The international organic and fair trade movements. *Agriculture an Human Values*. 17: p. 297-309

Raynolds, L. 2004. The Globalization of Organic Agro-Food Networks. *World Development* Vol. 32, No 5, pp. 725-743.

Schmid, E. and Sinabell, F. 2006. The Reform of the Common Agricultural Policy: Effect on Farm Labor Demand in Austria, IWPRUB, Wien

Sckokai, P. and Moro, D. 2011. Modeling the impact of the CAP Single Farm Payment on farm investment and output, *European Review of Agricultural Economics*, Vol. 38, p. 395-423

SERDON 2011. Survey on the market of organic foods and products in Bulgaria. Market findings. Financial aspects & subsidies. Applicable legislation. Opportunities.

Sortino, A. and Chang Ting Fa, M. 2009. The Dualistic Model of European Agriculture: a Theoretical Framework for the Endogenous Model. The Annals of “Dunarea de Jos”, Univeristy of Galati.

Steiner, R., 1924. Agriculture Course, the Birth of the Biodynamic Method, Eight Lectures and Discussions, Skylark Books, Hastings, UK, (2003 reprint).

Sumelis, J., Backman, S. and Sipilainen, T. 2003. Agri-environmental Problems in Farming Systems of Central and Eastern European Countries Change During Transition 1989-2003. Paper for CEESA project QLK5-1999-01611, Helsinki, 2003

Tanner, B. 2000. Independent assessment by third-party certification bodies. *Food Control* 11, p. 415-417

Tovey, H. 1997. Food, environmentalism, and rural sociology: On the organic farming movement in Ireland. *Sociologia Ruralis* 37(1): p. 21-37

Turnock, D. 1996. Agriculture in Eastern Europe: Communist, the transition and the future. *GeoJournal* Vol.38. No2 p. 137-149

United States Department of Agriculture (USDA) 2009. National Institute of Food and Agriculture Sustainable Agriculture and Organic Farming URL: http://www.csrees.usda.gov/nea/ag_systems/in_focus/sustain_ag_if_organic.html [consulted May 2013]

Van Mansvelt, J.D. and Mulder, A.J. 1994. Agricultural Developments: Past, Present and Future. Some Aspects as a Contribution to the Dialogue p. 29-62 in D. Znaor, The Contribution of Organic Agriculture to Sustainable Rural Development in Central and Eastern Europe, Proceedings of the International Seminar for Policy Makers Organized by the Avalon Foundation, Bohdalov, Czech Republic 14-17 October, 1993

Vitosha Research. 2009. Production, supply and demand of organic products in Bulgaria. Survey. Sofia, 2009.

Vogel, S. 1995. Die Umstellung auf Biologischen Landbau – Bäuerinnen und Bauern bewerten ihre Ziele und Erfahrungen im Umstellungsprozeß (Conversion to organic farming – farmers assess their goals and experiences during the conversion process) In Freyer, B. Lehmann, B., Schneeberger, W. and Zerger, U. *Betriebswirtschaft im biologischen Landbau* p. 199-203 Proceedings of a conference held in Zurich, April 3-5, 1995.

Wadekin, K.E. 1982. Agrarian policies in Communist Eastern Europe *The Hague Martinus Nijhoff* pp. 14-30

Ward, N. 1993. The agricultural treadmill and the rural environment in the post-productivist era. *Sociologia Ruralis* Vol. 23 p. 348-364

Wilson, G. and Rigg, J. 2003. "Post-productivist" agricultural regimes and the South: discordant concepts? *Progress in Human Geography* Vol. 27 p. 605-631

Wyzan, M. 1990. The Bulgarian Experience with Centrally Planned Agriculture: Lessons for Soviet reformers? *Soviet Agriculture: Comparative perspectives* p. 220-242

Xueqin, Z. and Lansink, A. 2010. Impact of CAP Subsidies on Technical Efficiency of Crop Farms in Germany, the Netherlands and Sweden, *Journal of Agricultural Economics*, Vol. 61, Issue 2, p. 545-564

Yarnal, B. 1994. Agicutlural Decollectivization and Vulnerability to Environmental Change. A Bulgarian Case Study. *Global Environmental Change* Vol. 3 p. 229-243