Adina Roxana MUNTEANU

The Bucharest University of Economic Studies

AGRICULTURAL COOPERATIVES FOR RURAL DEVELOPMENT IN ROMANIA

Case study, Literature review

Keywords

Cooperative
Organic agriculture
Rural development
Romania
Nepal

JEL Classification J54, Q13, P13

Abstract

The organic market has been increasing in the past couple of years and it is still expected to do so. However, even though the prices are higher on the organic market, farmers do not always manage to benefit from these better prices. Romania is a country with a high potential for organic agriculture as there are 14.8 million hectares of agricultural land out of which arable land represents 8.9 million ha. According to NIS (2012a p. 89), in 2011, 29.2% of the country's population was employed in agriculture. However, most households in rural areas produce for mere survival due mainly to the highly fragmented land owning. Therefore there is an acute need for new development strategies in order to improve living standards in rural areas. This article describes business models of organic cooperatives in Nepal and Romania. Moreover it proposes a rural development initiative based on the creation of organic cooperatives and suggests thata NGOs could implement such a program.

Abbreviations

FiBL Research Institute for Organic Agriculture

IFOAM International Federation of Organic Agriculture Movements **MARD** Ministry of Agriculture and Rural Development, Romania

ME Ministry of Economy

NIS National Institute of Statistics
VDC Village Development Committees

Introduction

In the context of the current global economic crisis, the organic market still maintains an upward trend as both supply organic products demand for continued to escalatedriven by increasing consumer awareness regarding the quality of food products. In 2011, in Europe there were 10.6 million hectares in organic agriculture, as arable land and permanent crops (Willer and Lernoud, 2013). During the same year the prices rose considerably following lower harvests of the previous two years (WillerandKilcher, 2012, pg. 206). For the following years, the experts upward trends expect for organic production.

Moreover, according to this same survey, in 2010 the first five largest European Countries are Germany, France, United Kingdom, Italy and Switzerland (see figure one). In 2010 the German market exceeded 6000 million euros, followed by France, with a little over half this value. Besides, according to Willer and Lernoud (2013) Denmark the organic market has the largest market share of 7.2% whereas in Switzerland the share reaches 5.7% (see figure two).

In the last years organic farming kept gaining popularity in Romania, even though the market is estimated at less than 1% of the retail market compared to the average of the EU countries which is around 5-6% (InfoMina 2008, Cult Market Research 2010).

The organically cultivated agricultural surface in Romania steadily increased since 2006, almost tripling until 2012 (see figure three). The almost 290.000 ha of organic agriculture might seem significant but compared to the total 14.8 million hectares of agricultural land, is still a very small percentage. Between 2006 and 2012 the number of organic Romanian operators increased 4.55 times, reaching almost 15,544 in 2012 (MARD, 2014a).

Overall, Romania is exporting mostly unprocessed organic products such

as grains (especially wheat and maize), rape seed, honey and forest fruits and very little processed products such as wine, cheese or bakery products and imports highly processed ones. This situation is quite unfavourable for the Romanian produces as the exports are mainly unprocessed products/raw materials. More than 90% of the exported honey, oil, fruits and vegetables go to the European countries (Burc -Voicu, 2012) such as Germany, Italy, Spain and UK.

The value of exports in 2011 is estimated at 200 million euro and according to Daniel Constantin, Minister of Agriculture and Rural Development, who declared that the experts from the Ministry of Economics estimate that until 2016 the exports of organic products will reach 1.5 billion euro if this respective sector will benefit from support from the governmental authorities (Daniel Constantin..., 2012).

In 2011, according to NIS (2012a), the segment of the Romanian population that lives of agriculture represents 29.2% of the population of the country. Of these, two thirds are family workers (not paid), individual workers or members of an agricultural society/cooperative (NIS 2012a). Moreover, according to NIS 99.2% (2012c)of the agricultural exploitations incorporated are not (agricultural exploitations by natural persons, authorised natural persons and individual or family enterprises). These data reflect the subsistence and semisubsistence farming which is still a dominant phenomenon in Romania. Most probably these farms do not have the same commercial operations as their equivalent, selling only a small fraction of their production.

In addition, most of the individual agricultural plots are highly fragmented. In 2010 the average area of the used agricultural plots is 1.95 ha, decreasing from 2.29 in 2007 (NIS, 2012a) and 97% of the number of arable land plots in Romania where less that 10 ha (household

type of agricultural area) representing 37% of the area of the arable land plots (NIS, 2012a). However, comparing 2010 with data 2002 data, the number of agricultural plots smaller than 1 ha decreased by almost 7% while those larger than 50 ha agricultural areas have increased by more than 50% (NIS, 2012b). These data show the number of small agricultural plots under exploitation is significant but the tendency is to slowly become more consolidated.

Considering the situation of subsistence, the need for development programs in agriculture is real and acute. Building on the author's own research, this article describes some business models of cooperatives in Romania and Nepal and proposes a rural development initiative based on the creation of cooperatives for organic agriculture with the aid of NGOs as a way of strengthening the capacity of farmers to cultivate marketable products at better prices and in essence improve livelihoods by income generation.

Organic cooperatives in Nepal and Romania

section presents business This models (meaning the rationale of income generation of an organisation) of three cooperatives, two in Nepal and one in Romania. The Nepal data was gathered in 2010 in Chitwan District in Nepal for the purpose of a study by Munteanu (2010) on medicinal cultivation plant development strategy. The following paragraphs build on the knowledge of Munteanu (2010) and add details as to present the business models of two of cooperatives: respectively Praja and Fulbari. Even though these cooperative were formed with objective of income generation for their members- they present different business models, starting with the initial equity, the categories of accepted members, external support and partnerships, goods produced and distribution channels.

The Praja Cooperative was established in 1997 with the main purpose

of aiding in the development of the Chepang ethnic group and in 2010 had around 375 members part of several different Village Development Committees (VDC) (Munteanu, 2010). The membership was restricted to this ethnic group only. The rationale of this exclusivity is explained by the fact that in Nepal there are 92 spoken languages as mother tongue while almost half of the population speaks Nepali. The Praia Cooperative raised capital by contribution of all members by annual fees (equivalent rupees (Rs) approximately 50 US dollar cents in March 2014). The annual fees served as access to the cooperative's assets and offered the possibility to sell goods to the cooperative as a legal entity (though not all members chose to sell their entire production to the cooperative). This capital was used to acquire machinery used for the cultivation, harvest and post processing of the medicinal plants. According to Munteanu (2010) the equipment together with the storage space built with the cooperative's money, allowed the selling approximately of 18 tonnes processed products based on medicinal plants (either harvested in the wild or cultivated) at prices far better than the same non-processed plants. The Praja Cooperative served as buyer of the products (honey, medicinal plants, ginger, mustard seeds) from its individual members. As an en-gross reseller of the products, the cooperative ensured the transport to market and sale. Most of the products were sold to local companies with which the cooperative had more or less regular agreements and also in markets of larger cities, including Kathmandu occasionally. The profit earned by this type of activity was reinvested machinery and means of transportation. This aspect is crucial as the VDCs of the members were quite isolated in the mountain area, making the transportation with mechanised means quite challenging activity. The

PrajaCooperativewas managed in a democratic fashion in which all members expressed their opinions and voted. The cooperative managed to reinvest profits and after 12 years had achieved a 400 fold increase in capital in nominal terms, from Rs 6,500 to Rs 2.5 million (Munteanu, 2010). Although, if we discount for inflation, the real increase in capital is almost 162 times fold, from 65 USD dollars in 1997 to 10,700 USD dollars in 2010 (exchange rate of March 2014) which is still significant.

Fulbari The Cooperative founded in 2000 and had around 150 farmers in 2010 members being accepted irrespective of their ethnicity, the only being that each condition farmer participated with minimum a approximately 0.7 ha of land (Munteanu, 2010) which was cultivated according to organic farming principles (a production system that sustains soil health, ecosystems and people by not using any chemical fertilizers, pesticides insecticides). According to Munteanu (2010) this cooperative had the support of a company, namely One World Alc. for the process of certification for organic agriculture since 2007. A ten years was signed between contract cooperative and the company stating that One World Alc. will provide assistance in the biodynamic certification process (in progress in 2010) and buy the organic products that considered marketable at a premium price (negotiated at somewhat higher than the market price at the moment of the future exchange of goods). The cooperative sold several types vegetables and a few medicinal plants species they cultivated to local buyers, in the markets of surrounding larger towns and to One World Alc. As the company was interested more in medicinal plants, the farmers had been conducting trials to identify the species that were best suited for their lands (Munteanu, 2010). The business model of this cooperative is quite simple, since it benefited from a contract

framework in which the main buyer solicited the crops to be produced and was in charge of transportation. The main characteristic of this cooperative is its significant component referring to learning and sharing of technical knowledge. The leader of the cooperative which was also the founder and the main driving force is a man with strong links with local academics due to the proximity of his VDC to the Institute of Agricultural and Animal Science part of the Tribbhuan University, with NGOs (involved in small scale development programs surrounding VDCs) and local business men. This leader is a clear example of innovative farmer that did a lot of experimenting with organic farming techniques and stimulated learning and sharing environment in the cooperative. Even though at the moment of data gathering in 2010 the financial results of the cooperative as a whole were not remarkable, this cooperation had all the conditions to be successful as more and more plots were very close to finalizing the certification process for organic agriculture, which would have meant a considerable expansion of the production of the cooperative.

In Romania, an example of an organic cooperative is Biocoop based in Sibiu. This cooperative is formed by producers, processors and retailers. According their website to (http://www.biocoop.ro/) the cooperative owns a store of bio products since 2004. The cooperative is the association of ten individual farmers that together offer various products such as meat, eggs, cereal, honey and dairy products. One of them, the Topa farm is part of the World Wide Opportunities on Organic Farms (WWOOF) which is a worldwide network of organisations that link volunteers with organic farmers. The farmer offers food, accommodation and opportunities to learn about organic lifestyles in exchange for the volunteer's help on the farms' chores. The Biocoop cooperative is an example where farmers come together to facilitate the sale of their products. This business model resulted in farms observable as the growth so it can be stated that their cooperation is successful. As all farmers posted the history of their development on the website, it is easily noticeable that in the last couple of years they all achieved an expansion of their activities and an increase of assets.

Discussions

Creating organic cooperatives in Romania

Romania is a country where agriculture plays a significant economic role as a major area of employment and where the majority of rural households produce for mere survival.

In this context, creating cooperatives seems a good solution. Although the term "cooperative" can refer to many different types of organisations with a wide range of objectives such as mutual, social, economic, and cultural benefits, this paper will focus on the cooperative in an agricultural sense, as an organisation that exists as an association that pools resources together to benefit its users.

According to Couture, Levinand Nippierd(2002), the principles of "genuine" cooperation regard democratic member control ('one-member, one vote'), membership on a voluntary and open basis, the economic participation of members is based on the equity provided, the distribution of surpluses or profits and social consciousness (providing training, information, and community services). On the other hand, Barton (1989)states the principles distinguish cooperatives from other forms of business, namely as "First, persons who own and finance the cooperative are those that use it. Second, control of the cooperative is by those who use it. Third, benefits of the cooperative are distributed to its users on the basis of their use."

On the other hand, the study of Katz and Boland (2002) explains why a new type of cooperative emerges, one that radically reviews the rules of ownership towards a more market oriented and entrepreneurial type and its managerial implications. This new type of cooperative operates with delivery rights and restricted membership. Another characteristic is that it restricts its level of business to a predetermined level of production from members in order to better plan production and thus be more effective in planning competitive strategies. Moreover, they are managed in a manner very similar to that of a company by a manager that is responsible for conducting activities to achieve the goals and objectives of the

The benefits of cooperation are clear and are born out of the long term experience all over the world. However, due to the years of abuse of the concept by the communist regime, in central and East European communities there is a strong psychological resistance to cooperation according to a 1995 study which states that "The use of the word co-operative in Central and Eastern Europe will not only create the wrong impression, it will also create barriers to progress. The old style of cooperative or collective has no relevance free-market approach" the new (Plunkett Foundation, 1995) making it a little more difficult to explain these benefits of cooperatives in the current market conditions to some individuals in these countries.

The most likely situation in Romania is that this attitude towards cooperative still exists as the number of farmers is decreasing correlated with the aging of this demographic.

Moreover, there are benefits of collaboration also when it comes to financing of the activity. Apetroaie (2008) raises the point that part of the assessment of the applicants to structural funds (e.g. Measure 121 - Modernizing the agricultural exploitations) the applicant

will receive a better scoring if part of some form of association. The same study goes on to say process of associating is a sensitive issue and that is it difficult to achieve as each member wants the benefits but not so much the responsibilities that come along, the involvement in the decision making process of identification. Moreover, in the context of the MARD giving some subsidies for groups of producers, Apetroaie (2008) noticed that at the level of 2008, the number of association seemed to be increasing compared to previous years. Apetroaie (2008) goes on to argue that by association, the economic performance increases and the possibility to develop a regional strategy

Designing aNGOimplemented program for rural development

This paper proposes a rural development initiative by designing a program meant stimulate to development by creating cooperatives for organic agriculture with the aid of NGOs. The main assumption is that farmers have not created organic cooperatives because either there is no enabling environment (lack of trust as a psychological factor, lack of technical knowledge on organic technologies and practices (compared to the mainstream type of agriculture uses fertilizers and pesticides) or they do not have enough market information (for example prices of organic products and distribution channels).

This paper argues that NGOs are appropriate to implement such initiatives. Considering the Nepalese experience, NGOs are quite successful in creating and implementing rural development programs. An example of such an NGO is (http://forwardnepal.org/) **FORWARD** which supports many types of projects meant to promote rural development, improve farmer knowledge on agricultural practices, assist with the creation of market channels and facilitate communication with authorities. Their success was due to

their awareness of the local characteristics and their ability to predict many aspects related to the implementation of a project and also their good reputation among the farmers. With this example in mind, the author is confident that these types of projectscould also serve as models in Romania.

Furthermore, **NGOs** are good candidates for implementing such programs as they can gather funds (both governmental and private) and facilitate communication among different stakeholders, therefore aiding in the knowledge sharing by translation of theoretical understandings into field practices for farmers.

In Romania, the MARD (2014b) recognises 32 organizations with objectives related to organic agriculture, environmental protection and sustainable development. Most of these NGOs are small and have regional impact act best. However, there are two which are quite large and have more visible projects.

The National Federation of Organic Agriculture (www.fnae.ro) is actively involved in communicating on subjects of interest for organic farmers and training. This NGO has a magazine, TV shows such as "The lesson in agriculture" and "Saving the village farm" which are also available online, and a series of workshops meant to provide more information on the organic market, success stories of organic farmers from Romania and also from abroad.

Bio Romania is another large NGO actively promoting that producers from Romania. This NGO is present in all important organic fairs, national and international (including BioFach, which is one of the largest organic fairs in the world), promoting at large the organic producers in Romania. Their website (http://www.bioromania.org/) also host a forum, where those interested in organic agriculture can find various information on several subjects.

This paper tries to argue that Romanian NGOs could take on a new challenge, that of actively creating organic cooperatives in order to support both rural development and organic agriculture. In the following paragraphs the parameters of a project to create organic farming cooperative: the objectives, targeted people, and implementation steps are presented (see also figure 4). However, this paper only presents a general idea of the feasibility of the project in a rather qualitative than quantitative way, as in the absence of a clear budget all financial details, human resources, and a clear timeline cannot be decided. Nevertheless, it will be argued that such a program, even if briefly sketched, has the potential to succeed.

Identify farmers and/or local communities

First of all, the objectives must be set and the targeted segment must be identified. The objectives of the programs are to promote small-scale communitybased cultivation in order to increase improve livelihoods. revenues and Moreover, the targeted segment is represented by small farmers interested in organic farming, either certified producers or not.

This paper considers as the target of the proposed rural development strategy those farms that are less than 10 ha. Such farms most probably encounter a range of difficulties such as the lack of bargaining power (they are price takers for their products), restricted physical access to markets (difficulty in transportation of products to the market and in finding a buyer), lack of machinery (too expensive to afford by a small farmer), restricted access to credit (lack of collateral, high transaction costs for small loans). The solution this paper suggests is that the way of solving these problems in a market economy context is to establish cooperative.

At the moment, a starting point is to roughly estimate the number of people that could be included in such a program we could consider the database of certified organic operators on the site of the Ministry of Agriculture and Rural Development (MARD, 2014a) which contains for 2012 around 15,544 certified organic operators. It should be noted that this number includes also companies (processors, manufacturers, traders) and therefore the number of organic producers is somewhat lower.

However, those that are planning to start organic farming and are willing to certify should not be excluded. The recommended approach would be to create pilot projects in one or two counties and then, usually, once there are several examples of successful stories, the resistance to the idea decreases.

Assessment of local characteristics

Each community is different in many ways: type of community, local activities, natural resources, traditions, etc. All factors must be kept in mind whenever designing a rural development strategy and the business plan involved. The first step in designing a successful program is the correct identification of local needs and resources. The literature is full of examples of bringing external models of development that fail in a specific community because they did not take into account the local characteristics.

This program should be based on a voluntary and participatory approach. Considering the psychological factor of the resistance to the idea of a cooperative due to the abuse during the communist regime, the first step in implementation of a project would be to assess the individual farmers' attitude towards cooperation in this sense and create awareness of the benefits of cooperatives in the current market conditions, the legal basis for the association, and the business model.

Thus, the benefits of organic farming and its income generation

potential and the benefits or organising this activity as a cooperative should be clearly explained through an initial campaign for creating awareness of the targeted audience as a prerequisite to any project initiation. An NGO developing such a project should start with a preliminary survey in any potential farmer community in order to assess the interest and the feasibility of the organic farming in the subject area. As farmers manifest interest in the activity, the next step is the identification of the development niche (the mix of plants to be cultivated or the species to be bread), estimation of necessary investments, identification of the supporting organizations for implementation (finding local partners) and network building and communication and sharing of knowledge (technical, market related, etc.).

Building capacity

As part of the project, capacity must be built among farmers by adhering to or creating organisations that could represent them in the political arena: for example creating farmer organisations that can advocate for a medicinal plants products certification scheme, governmental subsidies organic for certification, infrastructure improvements reducing for better market access. information asymmetry market and transparency.

At the moment, the Romanian producers export raw agricultural products. There are large players on the market procuring the products from dispersed sellers or intermediaries and also many small scale producers that sell locally. Therefore reducing asymmetry information would increase market efficiency. With this in mind, it is recommended that the cooperatives act similarly to companies, by planning production, closing contracts with buyers, and to continuously promoting their products. In order to achieve such an objective, the members of the cooperative

need market data, some planning and management skills, and also technical knowledge regarding the organic agriculture practices.

Designing the business model

To design a business model of a cooperative several aspects should be considered and planned, even though each cooperative will adopt the structure that is appropriate and in accordance to the desires of its members and management. The aspects mentioned above refer to means of raising initial capital (either money, goods or land), the type of management for the cooperative, type of activities and the role of the cooperative in creating income for its members (paying dividends of profit; providing equipment; etc.). It is advisable that the cooperative become the intermediary between farmers and suppliers/buyers in order to reduce the risk exposure of the individual farmer. Overall, the cooperative should act similar to a company that wants to increase its revenues and profits in the long run.

The management of the cooperative is another sensitive aspect. The decision regarding the management system and the organization of the cooperative should be designed by the participation of all members as to accommodate their specific requirements. Regarding this aspect there is no perfect solution but only solutions that work in a specific environment.

Certification

certification process organic producers is a significant point that needs consideration. Without certification. premium prices are difficult to obtain and producers cannot benefit from specially designed logos which are recognised according to the legal provisions by the Ministry of Agriculture and Rural Development in Romania and in the EU countries.

Moreover, the subsidies offered by the MARD apply only to certified operators, therefore, during the conversion period the farmers will not receive subsidies.

Exit strategy

In any project a good exit strategy is essential. After the implementation of the project, the NGO support has to decrease in such a way that the results achieved are not affected. In Nepal, in the case of the FORWARD, their exit strategy was to build local capacity and create a link between the community and the organisation by choosing one or two community representatives to spread any new information (Munteanu, 2010, p.53).

It should be kept in mind that the outcome of every project is influenced by external factors, many of which are not under the control of its designers: the general state of the economy and the market, the policies and the legal framework, both national and at EU level.

Conclusions

Farmers that organise themselves in cooperatives have several advantages. First of all, they have a better negotiating power with buyers due to increased volumes. Moreover, large buyers are interested in a constant and considerable supply, much more than a single farmer's production. The tradition of cooperatives in Nepal acts as a favourable background which facilitated formation of groups and communication and problem solving in the Organising the farmers groups. cooperatives was proven to increase the chances of success mainly due to increased traded volumes, storage and processing facilities and more negotiating power with the buyer resulting in better prices.

Secondly, as cooperatives can accumulate significant financial resources from the members' contributions and current business and can raise enough money for processing equipment and thus obtaining better profit margins.

Further research areas should concern market conditions and financing

options. There is a significant lack of market data concerning the prices of the organic products at this moment in Romania. Studies investigating the market actors would improve market transparency while an estimation of the absorption capacity of the market will help plan the appropriate supply.

Investigating the effectiveness of both governmental NGO initiatives in Romania is an important process as it leads to learning that can improve future projects. To the knowledge of the researcher, there are no studies on the effectiveness of such programs for Romania.

Reference list:

- [1] Apetroaie, C. (2008) Abord ri practice actuale în asocierea produc torilor agricoli [Current practical approaches regarding the associations of agricultural producers] *Lucr ri tiin ifice seria Agronomie vol. 51, 129 132*
- [2] Barton, D. (1989). "What is a Cooperative?" in Cobia, D. (ed.), *Cooperatives in Agriculture*, Englewood Cliffs, NJ: Prentice-Hall, pp. 1-19
- [3] Burc -Voicu, M. (2012) The Evolution of the Organic Food Market in Romania Trends, Opportunities and Threats in the Current International Economic Context, Romanian Review of International Studies, IV, 2
- [4] Couture, M.F., Faber, D., Levin, M., and Nippierd, A.B. (2002) Transition to Cooperative Entrepreneurship: Case Studies from Armenia, China, Ethiopia, Ghana, Poland, Russia, Uganda, and Vietnam; International Labour Office Geneva; Switzerland
- [5] Cult Market Research (2010) Studiu de pia Produse bio [Market study organic products] retrieved from http://cultresearch.wordpress.com/2010/09/14/st udiu-de-piata-%E2%80%93-produse-bio/
- [6] Daniel Constantin: Agricultura ecologic este un sector de ni în care România a excelat în ultimii ani (2012) [Daniel Constantin: Organic agriculture is a niche sector in which Romania has excelled in the last couple of years] retrieved from http://www.agerpres.ro/economie/2012/05/14/d aniel-constantin-agricultura-ecologica-este-un-sector-de-nisa-in-care-romania-a-excelat-in-ultimii-ani-13-01-59
- [7] InfoMina (2008) *Piaţa Bio din România* [The organic market in Romania], retrieved from http://www.infomina.ro/pdf/Despre%20piata%20BIO%20din%20Ro.pd f

- [8] Katz, J. P. and Boland, M. A. (2002) One for All and All for One? A New Generation of Cooperatives Emerges; Long Range Planning 35; 73-89
- [9] MARD (2014a) Dinamica operatorilor i a suprafețelor în agricultura ecologic [The dynamics of the operators and surfaces in the organic agriculture] retrieved from http://www.madr.ro/ro/agricultura-ecologica/dinamica-operatorilor-si-a-suprafetelor-in-agricultura-ecologica.html
- [10] MARD (2014b) Lista organiza iilor din domeniul agricultur ecologic, dezvoltarea rural, protec ia mediului i dezvoltare durabil [The list of organizations in organic agriculture, environmental protection and sustainable development] retrieved from http://www.madr.ro/ro/agricultura-ecologica/organizatii-non-guvernamentale.html
- [11] Munteanu, A.R. (2010) The potential of medicinal plant cultivation as an endogenous development strategy -A study based in Chitwan District, Nepal- retrieved from http://www.scribd.com/doc/41611458/The-Potential-of-Medicinal-Plant-Cultivation-as-an-Endogenous-Development-Strategy-AR-Munteanu-ERM-Thesis
- [12] NIS (2012a) Anuarul Statistic 2011 [Statistical Yearbook 2011]; Institutul Național de Statistic , Bucure ti
- [13] NIS (2012b) Comunicat de pres Nr. 149 din 2 Iulie 2021 Recens mântul agricol 2010 date definitive[Press release no. 149 from July 2nd 2012 "The 2010 General Agricultural Census final data"] retrieved from http://www.insse.ro/cms/files/RGA2010/comun icate/RGA2010_date%20statistice_r.pdf
- [14] NIS (2012c) Recens mântul Agricol General 2010 [The 2010 General Agricultural Census], retrieved from http://www.insse.ro/cms/files/RGA2010/Rezult ate%20definitive%20RGA%202010/rezultate% 20definitive%20RGA%202010.htm
- [15] Plunkett Foundation (1995). Review of 1994 activities. Oxford quoted in Lerman (2004) – "Policies and institutions for commercialization of subsistence farms in transition countries" *Journal of Asian Economics* 15 (2004) 461-49
- [16] Willer, H. and Kilcher, L. (2012) The world of organic agriculture – Statistics & Emerging Trends 2012 FiBL, Frick and & IFOAM Bonn 2012
- [17] Willer, H. and Lernoud, J. (2013) Organic Agriculture Worldwide: Key results from the FiBL-IFOAM survey on organic agriculture worldwide 2013. Research Institute of Organic Agriculture (FiBL) (Ed.) (2013) retrieved from http://orgprints.org/22349/

Appendixes

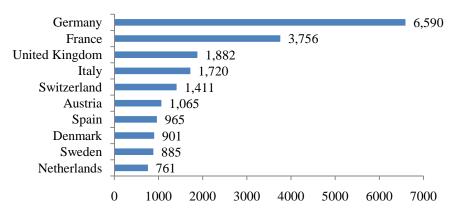


Figure 1The largest organic markets in 2010 in Europe Source:Willer&Kilcher (2012)

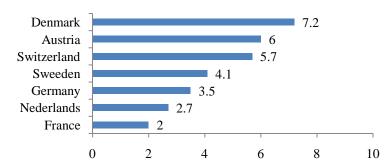
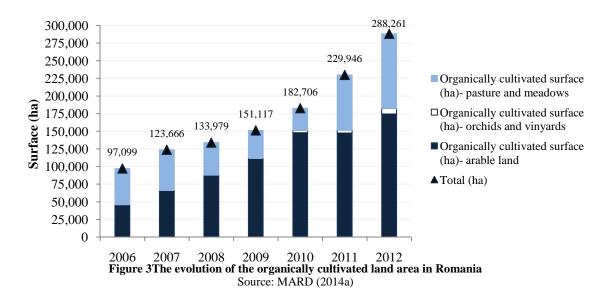


Figure 2Market share in 2010 of the organic market Source: Willer & Kilcher (2012)



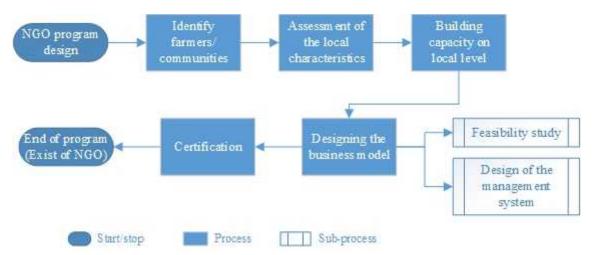


Figure 4 The implementation steps for a program regarding the creation of organic cooperatives