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**Working Paper**

## Community supported agriculture: Is it driven by economy or solidarity?

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# **DISCUSSION PAPER**

**Leibniz Institute of Agricultural Development  
in Transition Economies**

**Community supported  
agriculture in Romania  
Is it driven by economy or solidarity?**

**Brîndușa Bîrhală, Judith Möllers**

**DISCUSSION PAPER NO. 144  
2014**



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## ABSTRACT

Searching for possible viable economic pathways for small-scale farms in Eastern Europe, this study is concerned with Community Supported Agriculture (CSA). We are mainly interested in the costs and benefits for both sides, the farmers and the consumers, when entering into a direct, trust-based market relationship in the form of CSA. The study is theoretically embedded in the concept of solidarity economy. The analysis is based on three cases of farmers pioneering the CSA concept in Romania by offering organic vegetable to their local contracted consumers in the Western part of the country. All three CSA groups were initiated by a local NGO.

Our empirical results shed light on CSA partnerships in Romania. With regard to consumers we find that they are drawn from a specific group of urban dwellers with higher education and income, and a particular interest in health and nutrition. Consumers show a high level of trust to their partner farmers: this is the basis for a functioning economic relationship. Solidarity is a value that is aspired by the initiating NGO. It is existing as one of the values sought by consumers when taking part in CSA. More important than solidarity is, however, the consumers' wish for organic-quality fresh products, which are not available elsewhere. On the producers' side, the need for a stable market with fair prices is the main motivation to get involved in CSA. Thus, both farmers and consumer compensate for market failures through the CSA partnership.

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JEL: Q13, P13, O18, P32

Keywords: Community Supported Agriculture, CSA, small farmers, organic farming, Romania, solidarity economy, rural development.

## ZUSAMMENFASSUNG

### SOLIDARISCHE LANDWIRTSCHAFT IN RUMÄNIEN. ÜBERWIEGEN ÖKONOMISCHE ODER SOLIDARISCHE ELEMENTE?

Diese Arbeit beschäftigt sich mit dem Phänomen der Solidarischen Landwirtschaft, welche einen möglichen Ausweg aus der schwierigen Situation für Kleinbetriebe in Osteuropa bieten könnte. Der Schwerpunkt des Interesses liegt auf den Kosten und dem Nutzen für die Akteure – Landwirte und ihre Konsumenten –, wenn diese eine auf Vertrauen basierte Marktbeziehung in Form der Solidarischen Landwirtschaft eingehen. Die Studie ist theoretisch in das Konzept der Solidarischen Ökonomie eingebettet. Die Analyse basiert auf drei Fallstudien rumänischer Kleinbetriebe, die als Pioniere das Konzept der Solidarischen Landwirtschaft in Rumänien anwenden, indem sie Gemüse ökologisch anbauen, und an ihre urbanen Vertragspartner liefern. In allen drei Fällen war eine lokale Nichtregierungsorganisation Initiator.

Unsere empirischen Ergebnisse geben Einblick in rumänischen Partnerschaften der Solidarischen Landwirtschaft. Die Konsumenten rekrutieren sich aus einer spezifischen Gruppe urbaner Verbraucher. Diese zeichnet sich durch relativ hohe Bildung und Einkommen sowie ihr ausgeprägtes Interesse an Gesundheits- und Ernährungsfragen aus. Die Verbraucher zeigen einen hohen Grad an Vertrauen in ihre landwirtschaftlichen Vertragspartner, was wohl als einer der Schlüsselfaktoren für das Funktionieren der Partnerschaft gesehen werden kann. Solidarität stand im Mittelpunkt des Interesses der initiiierenden Organisation. In der praktischen Umsetzung zeigt sich, dass Solidarität in der Tat einer der Werte ist, den die teilnehmenden Konsumenten realisieren wollen. Gewichtiger ist allerdings der Wunsch nach frischen Nahrungsmitteln aus ökologischer Landwirtschaft, die

sonst kaum auf dem Markt zu erhalten sind. Die Motivation der Produzenten liegt vornehmlich in dem Wunsch begründet, einen stabilen Absatzmarkt mit fairen Preisen zu betreten. Beide Seiten kompensieren also durch die Partnerschaft bestehendes Marktversagen.

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JEL: Q13, P13, O18, P32

Schlüsselwörter: Solidarische Landwirtschaft, kleinbäuerliche Familienbetriebe, ökologische Landwirtschaft, Rumänien, Solidarische Ökonomie, ländliche Entwicklung.

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## 1 INTRODUCTION

Small-scale, subsistence based farms are the most vulnerable, often widely excluded players in modern global-scale trade of food products. On the other side of the chain, consumers are increasingly alienated from the places and methods of their food production, finding themselves dependent on retail mass consumption. Under certain conditions Community Supported Agriculture (CSA) may offer an interesting alternative way to create a real connection between producers and consumers. The logic behind CSA is that local food sources should be used over global ones and that the drawbacks of large and anonymous production chains can be bypassed by bringing producers and consumers together in food-centred networks.

Indeed, there are significant efforts worldwide in terms of food sovereignty and tackling various well-known problems such as the huge price volatility of agri-food products and the "dying out" of small farms. Amongst them, the movement for organic agriculture has become more visible and better networked through actors such as the International Federation of Organic Agriculture Movements (IFOAM). Much of the work of rendering agriculture sustainable takes place at grassroots level. In fact, organic agriculture seems to come hand in hand with a complete set of values opening "a window not only for its own particular variant on agricultural production, but also for a proliferating range of alternative understandings and insights into how we organize and value agricultural systems. The result is that the world of sustainable agriculture is undergoing a period of creative elaborations across institutional, consumer, political and methodological levels" (CAMPBELL, 2010: 249). Indeed, CSA with its local solidarity partnerships has become a global movement, too, which reaches, according to the umbrella organisation *Urgenci* more than one million consumer partners in about 10,000 partnerships worldwide.

With this in mind, we present a case study on CSA as one of the many innovations that may serve bottom-up rural development in a more and more globalised world. We concentrate on a region to which CSA is still new, Eastern Europe, but may have a high potential for CSA partnerships especially in countries with a large number of small scale farms such as our case country, Romania. Our research is embedded into the theory of solidarity economy. Trust is an important success factor of CSA which we focus on in our analysis.

Romania is a country in which CSA is just emerging, but where the economic environment may be favourable for such partnerships. It has a large rural population where many small, and subsistence based farms are almost uncoupled from the markets. They produce in a traditional way, close to the standards for organic agriculture, but without being officially certified. Urban consumers who are interested in healthy and organic fresh food face difficulties in Romania to satisfy their demand. In this situation of several market failures, CSA could be a viable option. The initial phase of CSA and the question if cost and benefits of such cooperations are favourable for both sides, the consumer and the producer in Romania, is analysed looking at the trust-based relationship between three groups of consumers and three producers in the Western region of the country.

In the following we first introduce first the concept of CSA and then the theoretical background of our research. This is followed by a presentation of the core research questions, and the research design and methodology. After providing the context of the study, results of the case study are discussed. The paper closes with a conclusion and policy recommendations.



## 2 COMMUNITY SUPPORTED AGRICULTURE

In the literature CSA is described as a partnership between a farmer and his or her consumers, based on a mutual commitment that consists in payments, product delivery and ways of collaboration. In most cases the consumers pay in advance so that initial running costs of production are covered. Thus the farmer will be supported for an entire season by a group of consumers to whom he or she will deliver fresh products on a weekly basis. In this manner, the risks and benefits of production are shared by the CSA members along with the farmer (GOLAND, 2002; HAWKINS et al., 2003; HENDERSON, 2007). CSA is oriented towards local production and consumption with an emphasis on the environment and organic practices (POLE and GRAY, 2013).

### 2.1 The underlying values of CSA

CSA originated in the 1970s in Japan under the name of *teikei* (literally meaning "relationship"). The ten principles of *teikei* were formulated in 1978 and have become ingrained as the ideological foundation in the practice of CSA:

Principle of mutual assistance	Principle of intended production
Principle of accepting the produce	Principle of mutual concession in the price decision
Principle of deepening friendly relationships	Principle of self-distribution
Principle of democratic management	Principle of learning among each group
Principle of maintaining the appropriate group scale	Principle of steady development

Source: Japanese Organic Agriculture Association (JOAA), 1978.

CSA is often presented as an attempt to resist the globalised and industrial agriculture by which people can be "re-embedded" in time and place. The link with a specific piece of land and producer allows a feeling of community and trust that stands in opposite to distant, anonymous production of food (CONE and MYHRE, 2000). In accordance with the original *teikei* principles, HENDERSON (2007) refers to certain values, such as cooperation and fairness, on which this particular alternative food system is based. He further specifically points at the underlying relation of CSA members with nature and postulates that there should be "an intimate relation with our food and the land on which it is grown", "a sense of reverence for life", "appreciation for the beauty of the cultivated landscape" and "a fitting humility about the place of human beings in the scheme of nature" (HENDERSON, 2007: 24).

It is hence not surprising that, although not included in official definitions, various forms of low-impact agriculture, and consumers interested in organic and/or biodynamic food production are central to the CSA concept. Accordingly, an important goal of CSA "is to develop participating farms to their highest ecologic potential and to develop a network that will encourage and allow other farms to become involved" (VAN EN, 1992: 57).

Another important goal refers to close ties between the consumers and the farm. Trust and social connection are important features of the direct market connection between the two parties (BOUGHERARA et al., 2009). Furthermore, in CSA activities there is a strong sense of the concept of "civic agriculture" meaning "community-based agriculture and food production activities that not only meet consumer demands for fresh, safe and locally produced foods but create jobs, encourage entrepreneurship, and strengthen community identity" (LYN SON, 2004: 2). This implies that if consumers wish to cut off the dependency on non-local foodstuffs, they need to make sure that the rural vicinity of their city or town is able to produce healthy food in a sustainable and reliable manner. Thus by supporting a CSA farmer, one invests also in his or her food security and contributes to the urban-rural connection based on solidarity and the awareness of mutual dependency.

## 2.2 A brief history of CSA farms around the world

It is important to note that CSA is a relatively recent phenomenon that is linked to modern industrialized and heavily urbanized societies. The first attested seeds of the CSA concept were planted in Japan in 1975. The movement rooted in severe health effects of industrial pollution (for example the Minamata syndrome<sup>1</sup>) and the need for safe and local food sources (HENDERSON, 2007). Urban consumers were the initial promoters as "especially mothers bringing up small children in urban areas were increasingly anxious about the safety of their food and organized themselves into buying groups to obtain uncontaminated eggs, milk, rice, vegetables, and traditionally processed foods." (HILL, 2007: 267). At the same time, farmers were increasingly worried about the many negative effects that heavy use of pesticides had had on their lands and crops, and started adopting organic farming. The Japanese Organic Agriculture Association was founded in 1971 and started promoting the concept of "teikei" (literally "relationship" or "partnership") which brought producers closer to consumers and encouraged them to help each other. By the 1990s the number of such partnerships had reached the number of 1,000, and at present there are between 500 and 1,000 consumer groups, with a varied number of member families (from 10 to 5,000)<sup>2</sup>.

It is not yet exactly known how the concept travelled to Europe (HENDERSON, 2007), but in 1978 the first project called *Les Jardins de Cocagne* started near Geneva with fifty members. It grew to presently 400 members. The first CSA in the United States was founded in New Hampshire (Temple-Wilton Community) in 1986 by someone who had gathered experience on the German Buschberghof farm, where biodynamic agriculture had been practiced since 1955. At the same time, but independently, the famous Indian Line farm in Massachusetts started functioning as a CSA farm. The number of CSA farms in US revolved around 1700 in 2004 (MCFADDEN, 2004). CSAs are also present in Canada, Australia and New Zealand. In Europe CSA farms are also present in several countries such as Germany<sup>3</sup>, England<sup>4</sup>, Denmark, The Netherlands, Belgium (*Voedselteams*), Italy (*Gruppi di Acquisto Solidale*), Portugal (*Reciproco*), and France (*Association pour le Maintien d'une Agriculture Paysanne*). In the past years the concept extended to Eastern Europe – notably Romania (*Asociatia pentru Sustinerea Agriculturii Traditionale*) and Russia. It can be encountered also in South America (in Brazil and Argentina) and in Africa (Mali and Togo) (VUILLON, 2008), but apparently there are not many Asian CSA farms outside Japan (HENDERSON, 2007).

In the meantime, CSA grew to the level of a global movement. *Urgenci* is the International CSA Network established in 2004 as an international platform of citizens, producers and "consom'acteurs" (literally consumer-actors<sup>5</sup>) engaged in local solidarity partnerships. Among the most visible and largest activities organized by *Urgenci* so far were their conferences bringing together members of the network from all over the world.<sup>6</sup> The *Urgenci* website<sup>7</sup> informs that the network reached more than one million consumer-actors, 10 000 CSA-type partnerships and 17.000 CSA farms worldwide. Among the many activities that *Urgenci* is involved in is also the dissemination of the concept to Eastern Europe and the Baltic States.

<sup>1</sup> A severe neurological syndrome caused by the mercury contamination of fish first discovered in Minamata city in 1956. The main culprit behind the contamination was Chisso Corporation who continued releasing toxic substances in its wastewater causing thousands of victims throughout the next 30 years.

<sup>2</sup> Japanese Organization for Organic Farming, at: <http://www.joaa.net/english/teikei.htm#ch7>, accessed in November 2011.

<sup>3</sup> Solidarische Landwirtschaft website at: <http://www.solidarische-landwirtschaft.org> accessed in November 2011.

<sup>4</sup> The Soil Association was founded in 1946 by one of the pioneers of organic agriculture, Lady Eve Balfour, and promoting local purchasing and public education in nutrition. They set the first organic certification system in 1967 and are presently certifying 80% of produce in UK.

<sup>5</sup> Wordplay on the French word for consumer "consommateur".

<sup>6</sup> So far *Urgenci* conferences have taken place in France, Portugal and Japan.

<sup>7</sup> *Urgenci* website, <http://www.urgenci.net/page.php?niveau=1&id=Actualites> accessed November 2011.

### **2.3 How does CSA function? Different models of CSA**

Robyn Van En, the initiator of CSA in the United States offers a simple formula of how CSA functions (HENDERSON, 2007: 3):

"food producers + food consumers + annual commitment to one another  
= CSA and untold possibilities".

These are certainly the features that led some authors conclude that the CSA concept is fundamentally similar throughout cultures, climates and farming methods (HENDERSON, 2007; GREGSON and GREGSON, 2004). Other, however, stress the diversity of CSA models (GOLAND, 2002; SWANSON, 2000).

The most common manner to classify the variety of CSA models irrespective of their location in the world is to look at who initiated the project. In cases, where the farmers propose the partnership, CSA can be classified as "subscription CSA" because the consumers are the ones responding to the offer and subscribe to be the supporters and recipients of the agri-food products. The management decisions belong to the farmer who can also organize with other farmers so as to offer a bigger variety of products. Consumers are not necessarily required to volunteer and thus their involvement is usually limited to the financial support. If the partnership is sought by a group of consumers, then it falls into the "shareholder CSA" category. In this case, consumers organize themselves, contract a farmer, and attract more members into the scheme. More involvement and the burden of decision-making is thus implied on their part; the core-group organizing the CSA can also be a non-profit organization and the land on which food is grown can be purchased, or leased by them, but it might as well belong to the farmer.

"Multi-farm CSAs" have been developed to cater for consumers' demands while relieving a single farmer from having to produce the large a variety of crops. Members have more options to decide about their involvement in the partnership (e.g. through a selection of types of shares) and farmers can exchange skills, machinery, or even land, and can support each other. In fact, the farms involved function as a cooperative (HENDERSON, 2007).

Another interesting approach to distinguish CSA partnerships is the degree of collaboration and solidarity (POLE and GRAY, 2013; FEAGAN and HENDERSON, 2009). At the one end of the spectrum, the "ideal", collaborative model involves a spirit of community and solidarity between the partners. Trust is an important link between the partners. At the other end we find economy driven, instrumental models with no community elements and less trust enabling the transactions.



### 3 KEY THEORETICAL CONCEPTS AND EMPIRICAL EVIDENCE

We look at CSA as an example of solidarity economy<sup>8</sup>, where economic activity is aimed at expressing reciprocity and practical solidarity (in contrast to the private sector, where economic activity is aimed at generating profits). However, our view is a critical one: we ask in how far solidarity (with the farmer) is really the main driver of CSA partnerships and which other benefits and cost play a role in practice. After introducing the concept of solidarity economy, we discuss potential benefits and cost for CSA producers and consumers and present empirical evidence.

#### 3.1 Solidarity economy

The concept of solidarity economy has been dealt with under the various names of *Solidarity-based Economy*, *Social Enterprises*, *Community Businesses* or *Community Economy*, *People's Economy*, *Third Sector*, *Economic Self-Help*, *Voluntary Sector*, or *Cooperative Economy*. Yet, all these approaches stand closely together under the same theoretical umbrella (AUIINGER, 2009).

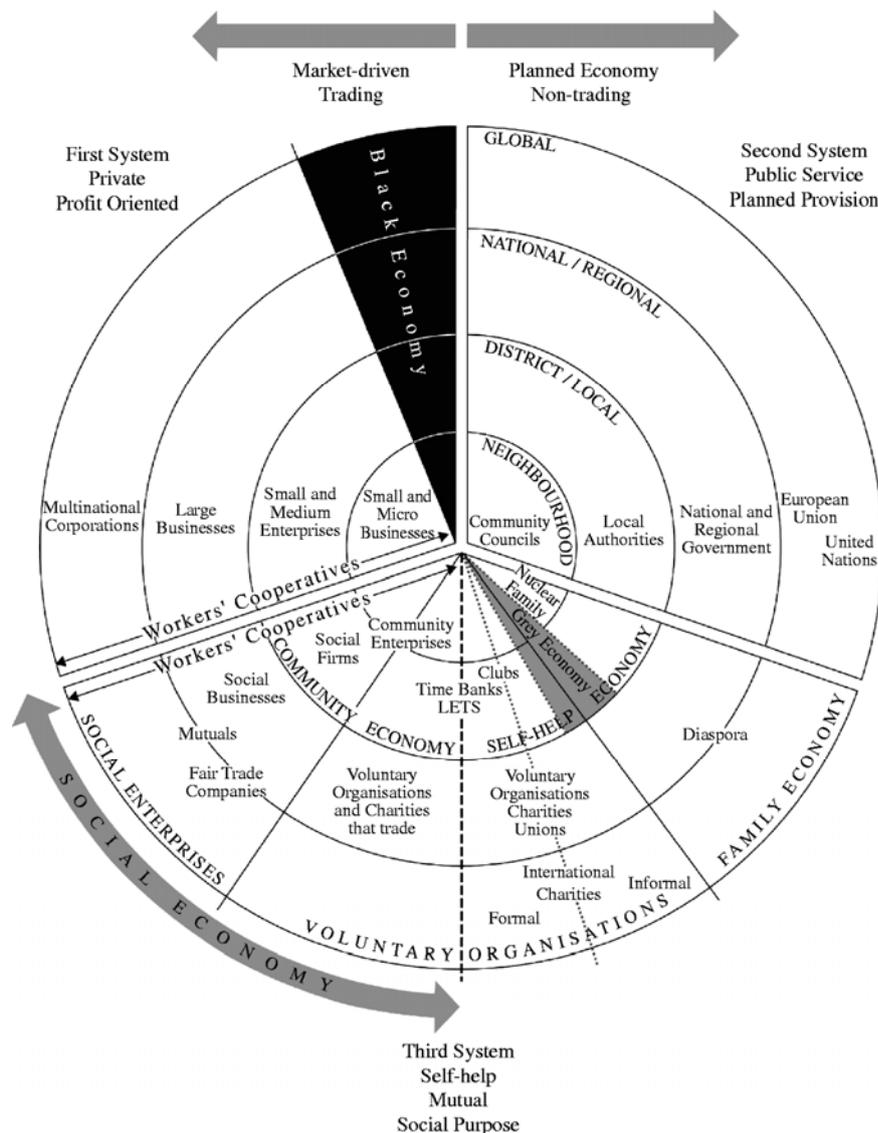
We often find that solidarity economy is embedded in the concept of social economy. Social economy spans all levels of economic organization from the neighbourhood to the global, and manifests itself in various forms of "community economy" or "self-help economy" (Figure 1). It is defined as an economy based on new values and concepts that inspire forms of social innovation, self-management and alternative forms of exchange (AUIINGER, 2009). Social economy has been referred to as the "third system", in opposition to the "first system" (private and profit-oriented) and to the "second system" (public service-planned provision) (PEARCE, 2003). In economics, the aim of the first system is efficiency, that of the second system is equality, while social economy, as the third system, strives for reciprocity (RESTAKIS, 2006).

Unlike the long intellectual history of social economy which goes back to the end of the 18<sup>th</sup> century in the works of utopian socialists<sup>9</sup> (RESTAKIS, 2006), solidarity economy is a relatively new concept inspired by the practice of local initiatives in Latin America in the mid-1980s. The concept gained momentum in 1998, with the organization of the first meeting of Solidarity Culture and Socio-Economy in Brazil, and with the formation of the Latin American Solidarity Economy Network. It developed further in 2001 with the creation of the Global Network of Solidarity Economy (MILLER, 2010).

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<sup>8</sup> There is certainly more than one option through which theoretical lens CSA can be analysed. We clearly deal with social networks, which could also lead us to the social capital perspective or the network-actor theory. The social capital perspective would have been appealing, but our empirical case does not include sufficient data as the researched CSA initiatives are too new. For the network-actor theory, its methodological apparatus seemed too speculative for the case in view. Therefore, we chose to build our analysis around the reasons for CSA formation with a primary interest in the interactions between the actors in the light of solidarity-based economy.

<sup>9</sup> For example Robert Owen, Charles Fourier, Henri de Saint Simon and Pierre-Joseph Proudhon.

**Figure 1: Three economic systems**

Source: PEARCE, 2003: 56.

Solidarity economy does not offer itself easily to a clear-cut definition; it can be defined as a system in opposition with the dominant economic systems which are built only on the market and competition. It does not define itself as anti-market or anti-government, but it is rather the result of mutual action among free people in an attempt to build new economic practices centred on human labour, knowledge and creativity, rather than capital (FISHER and PONNIAH, 2003). In CSA, the direct link between the producer and the consumer may be seen as an alternative to the regular market with its large scale and industrialised food production systems. Trust and social connection are the basis of such direct market relationships (HINRICHS, 2000).

One fundamental underlying assumption of solidarity economy is the idea of collaboration. It thus bases on the idea that human nature is more cooperative than competitive (BOWLES and GINTIS, 2011). A very important ingredient in solidarity economy is the networking of initiatives and actors, who can share knowledge and construct the fabric of another paradigm of social values. The practices at micro level should interweave with each other in broader collaborative networks and solidarity chains in order to be viable and effective (ARRUDA, 2004). The values that solidarity networks have in common are cooperation and mutuality (over competition), individual and collective well-being (over profits), economic and social equity (over social oppression), ecological responsibility, democracy and diversity (MILLER, 2010).

Solidarity economy can also be seen as a strategy that is complementary to social economy and located at the intersection of all three economic systems (LEWIS, 2007). Similar to Pearce's various instances of social economy shown in Figure 1, one can distinguish several organizational forms subscribed to solidarity economy, for example consumption and production cooperatives, credit cooperatives, fair trade initiatives, or Local Exchange Trading Systems (LETS). Through such organisational forms solidarity economy seeks to generate profound changes in values all throughout the three systems (MILLER, 2010).

Within solidarity economy CSA can be classified as "consumer cooperative" centred on the agricultural labour of farmers. The items of exchange are food products. The exchange between the two parties is direct and functions not according to the classical demand-supply curves, but according to a pre-established system of mutuality and trust. The demand for a certain type of product is combined with the social aim of preserving rural life and organic food production. Certain elements of the conventional capitalistic market transactions have been avoided or reinterpreted by means of mutual agreement and a much higher level of trust than in regular market transactions.

### **3.2 Potential benefits and costs of CSA and empirical evidence on the motivation to be a CSA partner**

Although not all aspects of CSA fit easily with the framework of conventional economics, we look at it as an economic arrangement in which certain values that are at the core of solidarity economy play an important role. In that sense we see it as an innovative economic alternative that occupies space that was left empty by the capitalist markets. Despite its solidary character, the participation in and thus the success of CSA depend on the partners' benefits and costs. These benefits and cost may be tangible or intangible and many are linked to certain values such as solidarity, community or environment.

In Table 1 we attempt to include the most important benefits which CSA offers to the actors directly or indirectly involved. This list is certainly not exhaustive and some categories are overlapping, but it presents a summary of the most prevalent benefits from the topical literature (e.g. GOLAND, 2002; HAWKINS et al., 2003; HENDERSON, 2007). It must be stressed that some of the benefits mentioned might be achieved also through conventional agriculture and marketing.

Consumers are thought to combine the benefits of the desired product (of a certain organic quality, health value, taste, freshness, price, etc) with value related benefits that arise for example from their concerns about the environment, or from the wish to buy local or to reconnect to the rural (e.g. PERRY and FRANZBLAU, 2010). Benefits may arise from a (positive) change of their relationship with farmers, with land and with their communities (FLORA and BREGENDAHL, 2012). Furthermore, health and knowledge are expected to increase (CAROLAN, 2011). CONE and MYHRE (2000) find for the US that freshness as well as local and organic production are important attributes of the products that attract consumers; health has only medium importance. Like many other studies they confirm that price plays a rather small role for consumers (see also POLE and GREY, 2013). CONE and MYHRE (2000) also find that environmental concerns have a high importance for US consumers; the same is true for French CSA consumers according to BOUGHERARA et al. (2009). Other values sought by consumers may be community or solidarity (FEAGAN and HENDERSON, 2009). Empirical evidence shows that community is not always at the top priority of consumers (e.g. POLE and GREY, 2013; CONE and MYHRE, 2000). Personal benefits are to be expected from the possibility to visit and work on the farm. Especially children will get access to a valuable form of education about the origin of food, and for adults the most important benefit may arise from emotional values such as stress relief or life enrichment (e.g. CHEN, 2013 for Chinese CSA members). Volunteering on the farm and participating in farm events is mostly seen as less important benefit (e.g. POLE and GREY, 2013; FEAGAN and HENDERSON, 2009). Nonetheless, the literature suggests that social capital is one of the factors that attracts and keeps members in CSA partnerships (FLORA and BREGENDAHL, 2012).

**Table 1: Potential benefits of CSA to the partners and the society**

	Type of benefit			
	Personal	Social	Economic	Environmental
Consumers	<ul style="list-style-type: none"> <li>▪ Traceability and organic quality of food</li> <li>▪ Freshness, seasonality</li> <li>▪ Education (children, healthy diet, etc)</li> <li>▪ Possibility of farm visits/farm work</li> <li>▪ Connect with like-minded individuals</li> </ul>	<ul style="list-style-type: none"> <li>▪ Connection with rural areas/agriculture.</li> <li>▪ Trust-based solidarity relationship with farmer.</li> <li>▪ Feeling of belonging to a community</li> </ul>	<ul style="list-style-type: none"> <li>▪ Lower prices for organic products</li> <li>▪ Fixed price for the whole season</li> <li>▪ Fair price negotiated with the producer</li> </ul>	<ul style="list-style-type: none"> <li>▪ Production methods in agreement with environmental concerns</li> </ul>
Producers	<ul style="list-style-type: none"> <li>▪ Reputation within rural community</li> <li>▪ Fair remuneration</li> <li>▪ No need for off-farm employment</li> <li>▪ Networking with CSA producers</li> </ul>	<ul style="list-style-type: none"> <li>▪ Creation of solidarity community around the farm</li> <li>▪ Fair pay for seasonal workers</li> <li>▪ Maintain family farm</li> </ul>	<ul style="list-style-type: none"> <li>▪ Access to a stable market resulting in a steady income</li> <li>▪ Avoidance of middlemen</li> <li>▪ Lower production risk</li> <li>▪ No need for organic certification</li> <li>▪ Circumvent competition</li> <li>▪ Plan production according to a known demand</li> </ul>	<ul style="list-style-type: none"> <li>▪ Maintain the soil fertility</li> </ul>
Society		<ul style="list-style-type: none"> <li>▪ Preservation of local traditions/heritage</li> <li>▪ Food sovereignty of the community</li> <li>▪ Preservation of rural landscape</li> <li>▪ Contribution to sustainable rural development/local identity</li> </ul>	<ul style="list-style-type: none"> <li>▪ Direct financial support to local farmers or farmers' cooperatives.</li> <li>▪ Support of local economy through avoidance of imports.</li> <li>▪ Less food waste</li> <li>▪ Creation of employment</li> </ul>	<ul style="list-style-type: none"> <li>▪ Less water contamination</li> <li>▪ Reduced food miles<sup>10</sup>/ transport-related pollution</li> <li>▪ Reduced packaging</li> <li>▪ Preservation of healthy ecosystem and genetic diversity of crops</li> </ul>

Source: Based on literature review of references cited in the text.

Producers can expect a number of economic benefits including the upfront payment, market access, control over pricing, stable and fair incomes, low production risks and no market competition (compare for example PERRY and FRANZBLAU, 2010). The survival of the farm may be secured and organic farming comes with the promise of maintaining or improving the soil quality and thus the value of the farm. Social benefits may lie in networking activities and in the CSA solidarity community. Empirical evidence with regard to the benefits for farmers is scarcer as most authors concentrate on the CSA consumers. According to a case study by FLORA and BREGENDAHL (2012), the most important motivation of farmers to join CSA are financial advantages. Expected

<sup>10</sup> Concept developed in the 1990s by Professor Tim Lang from the Sustainable Agriculture Food and Environment (SAFE) Alliance to refer to the distance a food product travels from its production location to its consumers. Food miles refer to the environmental effects of fossil fuel used for the transportation of those food products. The concept was published in the 1994 Food Miles Report "The dangers of long-distance food transport" by A. Paxton.

benefits related to social capital are the second most important driver of joining CSA, followed by cultural/value conviction reasons, an expected increase in human capital, and – with very low importance – environmental and political reasons. Reporting about actually received benefits, the picture looks slightly different: here, environmental benefits are ranked highest, while financial advantages are the least important actual benefit. LASS et al. (2003) present results on a national US survey. They highlight that farmers in the US had slightly higher incomes than most US farms. CSA income helped to be able to meet the operating cost and necessary investments. Although the majority of farmers stated that CSA improved their economic situation, they were not fully satisfied with their own compensation and financial security. Despite this, CSA farmers tend to concentrate on their farming activities instead of taking up non-farm employment as an additional income source. FLORA and BREGENDAHL (2012) report for farmers who have ceased their CSA activity that for them financial reasons played a major role. Another benefit that was mentioned in the study of LASS et al. (2003) was an increase in soil quality due to organic farming practices and the community involvement.

Finally, also the society as a whole should benefit from CSA partnerships. Here the environmental benefits of organic, local production are important. Furthermore, CSA support the local identity and rural development. Some CSA partnerships donate excess product to the poor or have measures aiming at social inclusion (FLORA and BREGENDAHL, 2012; HENDERSON, 2007).

Alongside with a number of benefits to be expected from CSA participation, there are certainly some limitations and disadvantages (including costs) for the two parties directly involved in the partnership, the consumers and the producers. Informed by the topical literature we identify the most common drawbacks which CSA projects in general may suffer from and assign them either on the producers' or on the consumers' side (Table 2). The table provides an implicit comparison with a conventional marketing situation where the consumer could source his or her food purchases instead of subscribing to a CSA partnership.

**Table 2: Potential costs of CSA to the partners**

Costs for Producers	Costs for Consumers
Initial investments to start the CSA	Limited choice of produce, acceptance of non-standard products, unpredictability of quality and quantity
Intensification of labour due to organic/traditional-type of agriculture	Inconvenience of picking up the CSA share at a given time and place every week
Need for thorough book-keeping of the farm costs and revenues	Time invested in picking up and preparing food from raw vegetables
Transportation of vegetables to town at least once per week	Change in life style and inconvenience of preparing the vegetables
Extra costs of packaging and direct marketing of shares instead of selling to the whole seller or middleman in bulk	Necessity to pay lump sum in advance, higher prices compared to conventional products, share risk of production
Personal life changes due to having to be open to visits from the consumers	Necessity to volunteer for farm work and/or distribution of the shares

Source: Based on literature review of references cited in the text.

The expected costs for the producers are mostly connected with adapting their farm activities to the special needs of a CSA partnership. Usually there are initial investment costs which relate for example to the start of organic farming, the need for drip irrigation etc. Organic farming practices come along with an intensification of farm work. On the management side, a need for thorough book keeping is a must. The direct marketing comes with extra efforts with regard to packaging and the weekly transportation of the shares to the pick-up point. This together with the necessity to open the farm for visitors and frequent customer contacts might lead to a significant change in the personal life-style of the farm family.

Like every consumer, CSA members are not automatically pleased with what they obtain for their money. By making a commitment to the producer for a whole season, the consumers do not only risk investing in a crop failure, but also have to make compromises in giving up the convenience of a wide range of (partly foreign) products that conventional food sales channels offer. The limited choice of products is clearly seen as a disadvantage of CSA (CONE and MYHRE, 2000). Both the quality and quantity of vegetables in the shares is unpredictable to a certain degree.<sup>11</sup> Yet, when looking for reasons why consumers stop their membership the quality of the food is not the top motivation according to FLORA and BREGENDAHL (2012). Another factor that is mentioned as a disadvantage of CSA in the empirical literature is the inconvenience. Of high importance are coordination issues, i.e. the inconvenience of picking up the share on a weekly basis at a certain time and place (FLORA and BREGENDAHL, 2012). Less important, but still an issue is the fact of being confronted with a box of vegetables each week the contents of which were not selected by the consumer themselves. The share may contain unknown types of vegetables, and it may be seen as difficult to store, process and cook the products. Overall, CSA consumers are confronted with a substantial change in their routines (CONE and MYHRE, 2000; FLORA and BREGENDAHL, 2012). Almost all studies available confirm that consumers are comparatively well off. Despite this, it seems that financial costs are an important factor for the decision to stop membership (FLORA and BREGENDAHL, 2012). As mentioned above, the possibility of taking part in volunteer work and farm events is not seen as a significant benefit by many. In fact, it is reported that consumers have a low interest and no time for such activities (FEAGAN and HENDERSON, 2009; POLE and GRAY, 2013). The lack of social connection is thus one of the factors that may lead to ending the membership (FLORA and BREGENDAHL, 2012). Indeed, the dwindling participation of CSA members in their partnership is seen as critical. It is very difficult to mobilize and interest urban dwellers in visiting the farm and getting dirty doing farm work. This diminishes the importance of the community element, thus changing the spirit of the concept (HINRICHS and KREMER, 1998; POLE and GREY, 2013).

One very important general critique of the CSA concept comes from the food justice perspective. Although there are CSA projects aiming at social inclusion in most cases, the price level is too high to be accessible to people with low incomes. This happens because the products are organic (certified or not), and thus their costs of production are higher. The prices for CSA shares are therefore usually above prices of conventionally produced products in marketplaces or supermarkets. Possible measures to address this problem are special prices for low-income consumers in "subscription CSA", or a solidarity scheme of payment<sup>12</sup> with minimum and recommended price in "shareholder CSA".

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<sup>11</sup> Such unfavorable issues are made known and accepted in the agreements or contracts which the two parties draft and sign. We looked at agreement documents of various CSA partnerships (from the US and UK) and noticed that they contain almost the same text; this expresses the consumers' pledge to understand that there is no guarantee on the exact amount or type of produce in the share. Moreover, the effect of the consumers' participation is described as offering support to the local farmer, but also to a more equitable food distribution, and to a more environmentally and economically healthy society.

<sup>12</sup> CSA GartenCoop in Freiburg, Germany being an excellent example of a pay-as-you-wish CSA.

## **4 OBJECTIVES AND RESEARCH DESIGN**

This study is motivated by the idea that CSA systems are one possible rural innovation that may help semi-subsistence farmers to escape the trap of market failure and provide them with a fair income. Urban dwellers through CSA can access the healthy organic vegetables that they demand and at the same time show solidarity with the local rural population. In Romania viable opportunities to develop semi-subsistence farms are urgently needed. At the same time, the national organic vegetables market is underdeveloped.

### **4.1 Research questions and hypotheses**

The study seeks to analyse the formation of CSA partnerships in Romania. Based on the cases of three Romanian CSA groups, we are particularly interested in factors that hinder or facilitate participation in a CSA. Issues of particular interest are trust and solidarity as important drivers and successfactors of CSA, but also communication and networking, which seem important elements for a relatively new rural innovation. We ask for the cost and benefits for both sides, the consumers and farmers and discuss the sustainability of the CSA initiative from the perspective of solidarity economy.

The research is based on the following hypotheses:

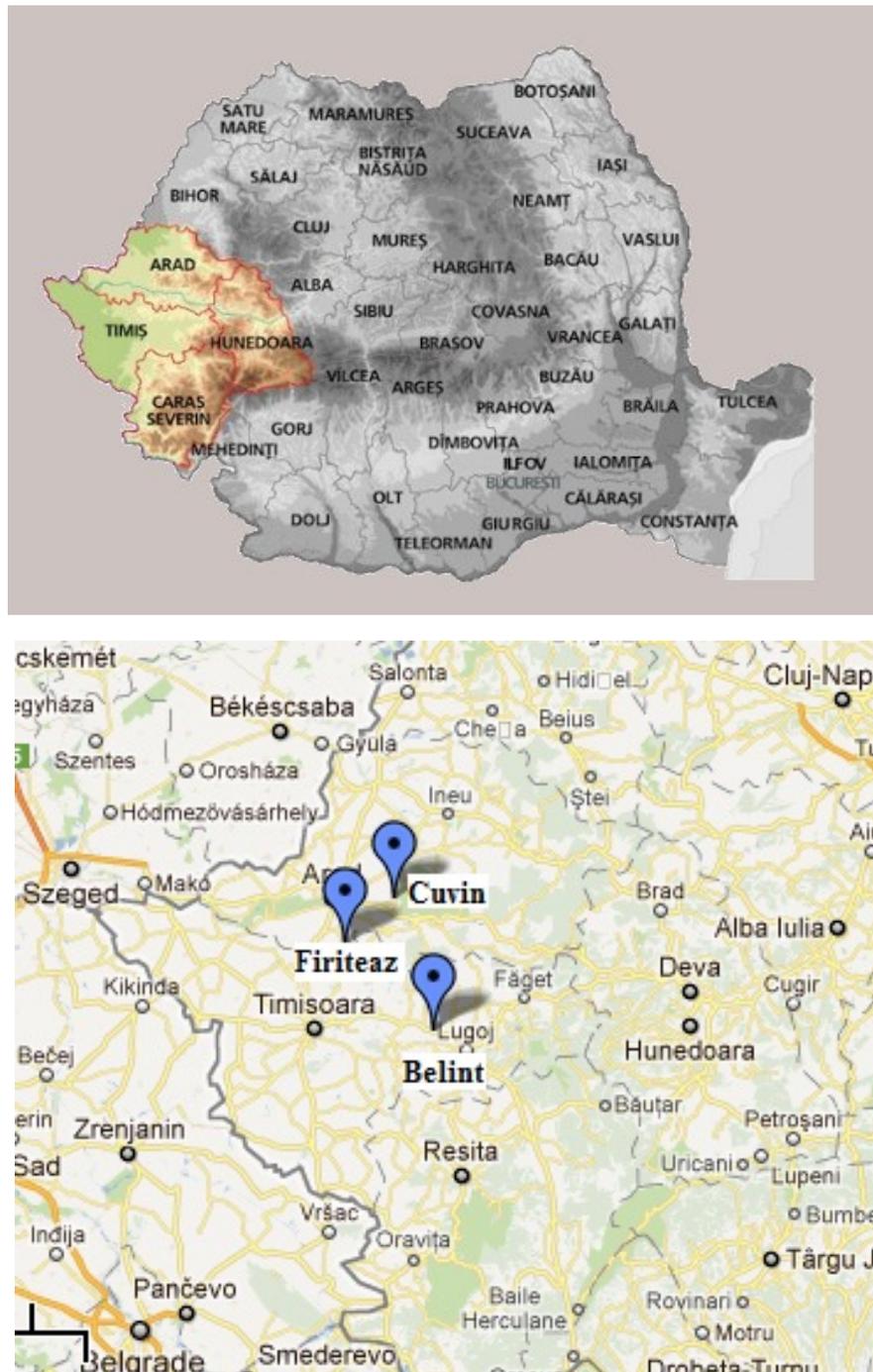
Hypothesis 1: The Romanian consumers involved in CSA are different from average urban citizens in terms of their incomes, attitudes and educational levels. They have a high interest in health and nutrition-related issues.

Hypothesis 2: The solidarity element in the partnership is a very important driver of becoming a member for the majority of consumers.

Hypothesis 3: The producers in CSA partnerships are able to increase their income compared to the without CSA situation. CSA partnerships are therefore win-win partnerships. Both parties, the consumers and producers, are able to improve their situation in terms of specific desired goals.

### **4.2 Empirical research design and methodology**

The data for this research stems from an empirical research conducted in and around Timisoara in August-September 2011. The study looks at two distinct sets of actors – the producers and consumers of a CSA scheme that was initiated by a local NGO in this area. The data refers to three CSA groups with farms located in the villages of Cuvin, Fititeaz and Belint (Figure 2). The consumers of these CSA farmers are from the nearby city of Timisoara.

**Figure 2: Map of Western Romania and the study area**

Source: <http://regiuneavest.ro/> and Google Maps accessed December 2011.

The survey tools were designed specifically for the respective target group. The larger group of consumers was approached mainly by means of a quantitative survey; farmers' interviews were more qualitatively oriented and conducted in a semi-structured manner. For assessing the interaction between farmers and consumers we additionally relied on participatory observation. The empirical work was done concomitantly for both groups, in a time span of two weeks. In addition, three expert interviews were conducted. We further asked for the inside view of the CSA from selected core-consumers by means of a mailed questionnaire. In order to be able to make a price comparison between the CSA products and the same products from other sources we gathered data on vegetable prices in various local outlets: town market, neighbourhood supermarket and central mall.



The consumers' survey tool was applied among the households participating in the CSA partnership. The entire population of CSA members (163 households) was initially approached. Ninety hard-copy questionnaires were distributed directly, and 73 questionnaires were sent to CSA members via email. Despite summer vacations, the return rate was satisfying with 40 filled-in questionnaires (24.5 % of the consumers).

The questionnaires related to three topical areas: 1) the consumer household profile, including gender, age, education, occupation, income of the household members, and respondents' connection to the countryside income; 2) the behaviour in respect to the purchase of foodstuffs; and 3) the CSA partnership, including issues like the motivation to enter the partnership, the level of satisfaction, and the degree of involvement in the partnership.

The three farmers involved were interviewed on the basis of semi-structured in-depth interviews. Interviews were audio-recorded with the permission of the interviewees. The interview guide contained 57 questions, grouped into four topical areas. The first part of the interview aimed at collecting information about how the farmer got initially involved in the CSA partnership and gathering details on the producer-consumer relationship. In the second part mainly quantitative data on the farm was collected, including, among others, ways and levels of production, investments made, and subsidies received. The third part dealt with the changes, which had occurred on the farm since they joined the CSA-partnership. The interview closed with a small quantitative section designed to collect biographical data about the farmers' households and to investigate their general attitudes towards the CSA partnership.

Three expert interviews provided deeper insight in the issue at hand: (1) In order to obtain a better picture of organic agriculture in Timis county, we conducted an interview with an expert from the local administration<sup>13</sup>. This interview inquired about the trends in certification at county level, the difficulties Romanian farmers encounter with producing vegetables ecologically and the internal market for ecological agricultural products. (2) The formation of the CSA initiative was the main focus of questions addressed to the president of the CRIES NGO. Answers were provided by the NGO via email. (3) A questionnaire with primarily open questions mostly related to the consumers' motivation and involvement in the CSA-partnership was mailed to a former CSA member and consumer core-group member who was said to be specifically knowledgeable and engaged within the partnership.

Participatory observation was another important research instrument. In particular, the farmer-consumer relationship was observed while assisting the farmers in the delivering of the products at the delivery site of each farmer. The process of picking up the shares, and important aspects about the interaction between consumers and farmers were noted. Insights further were obtained from helping with keeping the CSA books and from visiting the farmers at their homes for the interviews.

The quantitative data was coded and analysed in Microsoft Excel and SPSS. The qualitative data was coded and analysed using Nvivo 9.

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<sup>13</sup> The responsible for ecological agriculture from the Agricultural Directorate of the county.

## 5 ROMANIA'S FARMING SECTOR: AN OVERVIEW

CSA initiatives in Romania are part of the general economic trends and structural change that currently occur in the farming sector. This section gives an overview of these trends and introduces in particular the situation of the vegetable as well as the organic agriculture sectors in Romania, to which the researched CSA initiatives are linked.

### 5.1 Macroeconomic trends and the importance of the farming sector

Romania became a member of the EU in 2007, increasing the Union's territory with 6 % and bringing in 21 million inhabitants, representing 4 % of the total EU population. In terms of conventional economic indicators, Romania is categorised as an "upper middle income" country. Its GDP growth has had a very varied trajectory since 1989, when the communist planned economy collapsed. Fluctuations are rather large and no yet stabilized. Recently, the real GDP growth rate indicates a downward trajectory with a negative volume growth of -1.9 % in 2010. In terms of unemployment figures, Romania registered a lower rate (7 %) than the EU-27 average (9.6 %) (EUROSTAT, 2010). Yet, these figures must be interpreted in the light of a possible bias of official statistics.<sup>14</sup> The Romanian average wage did not go beyond 14,000 Euro per year (adjusted with Purchasing Power Standard<sup>15</sup>) in 2011.

In spite of its rather poor economic performances, the buzzword to describe the Romanian economy ever since its accession remained "with high potential". National official reports state that Romania has an important economic development potential, which is generally being underutilized (NRDP, 2011). A remarkable potential is also associated with the agricultural sector and food industry. It rests primarily in a vast agricultural surface (55.9 % of the territory), which amounts to 10.25 % of the agricultural surface of EU-27. With a decreasing population density<sup>16</sup>, the average of arable land per inhabitant is double compared to the EU-27 average (AE, 2011).

Approximately 45 % of Romanian population lives in rural areas, with an increasing trend of internal migration of the active population from rural to urban areas. According to the typology used by Eurostat, two thirds of Romanian territory is predominantly rural, while the rest is labelled as intermediate<sup>17</sup> (EUROSTAT, 2010).

In Romania, the service sector contributes with 55 % to the GDP, industry with 35 %. For the years 2008-2010, the value added by agriculture (including forestry, hunting, and fishing) to the GDP remained at 7 %. This is relatively high compared with the EU-27 average (about 1.7 %) but is has been decreasing in the past years (AE, 2011). Romania is the EU member state with the largest percentage of its active population employed in agriculture (30 %), much higher than most of its Easter European neighbours and the EU-27 average (Table 3). The high agricultural employment rate indicates that tremendous structural change still has to take place.

<sup>14</sup> They do not include, for example hidden unemployment, constituted by people who gave up looking for jobs or work under-employed in the farming sector, the early retired, the working-age individuals in full-time education and other categories without employment or who do not qualify for social security.

<sup>15</sup> Purchase Power Standard (PPS): "the technical term used by Eurostat for the common currency in which national accounts aggregates are expressed when adjusted for price level differences using PPPs. Thus, PPPs can be interpreted as the exchange rate of the PPS against the Euro" (Eurostat Glossary).

<sup>16</sup> According to the preliminary results of the Population Census in October 2011.

<sup>17</sup> According to the new EU typology, the definitions of "urban", "rural" and "intermediate" areas are based on a variation of the OECD typology. The change consists in considering the regions with 20 to 50% rural population as 'intermediate' regions.

**Table 3: Employment by economic activity (% of total employment) 2010**

	Agriculture	Industry	Services
RO	30.1	28.7	41.2
PL	12.8	30.2	56.9
BG	6.8	33.3	59.9
HU	4.5	30.7	64.9
EU-27	5.1	25.2	69.1

Source: EUROSTAT, Labour Market Statistics, 2011.

Agriculture is seen as a strategic sector for the Romanian economy in political discourse. The reasons for this can be seen in its backwardness and the problem of low productivity and underemployment on the one hand, and in its unused economic potential and its role as a socio-economic buffer on the other hand.

Despite the fact that the sector received considerable support, the policies designed and implemented since the collapse of communism and the dismantling of central planning did not render it competitive on the EU market (NRDP, 2011). An important impetus for Romanian agriculture and rural development is given by the EU Common Agricultural Policy (CAP) through which farmers can profit from subsidies to increase their income.<sup>18</sup>

#### **Dualistic farm structures, farm incomes and labour productivity**

The Romanian agricultural sector has a dualistic farm structure (ALEXANDRI, 2007): in 2011 small farms operating on 1 to 10 ha represented 93.4 % of total farms but operated only 32.4 % of the agricultural area, while large farms between 10 and 100 ha represented only 5.5 %, but operated on 15.5 % of the land. The largest part of the arable land (52.1 %) was used by farms over 100 ha, which represent 1.1 % of the total number of farms (AE, 2011).

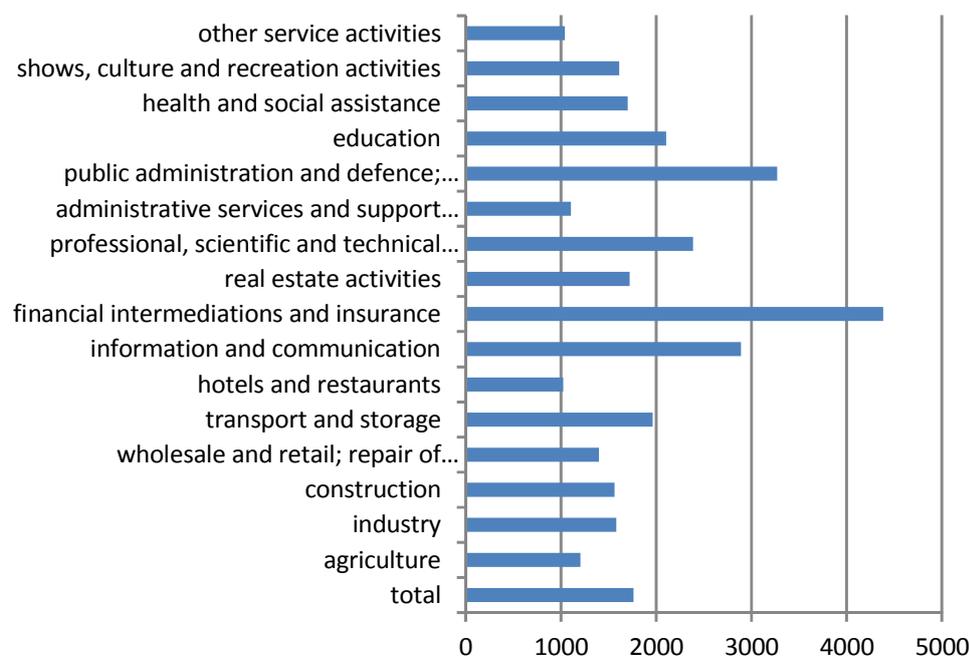
A dominant characteristic of Romanian agriculture is the excessive fragmentation of arable land which resulted from the fragmentation of land ownership that originated from privatisation at the beginning of the 1990s (DRÄGER, 2001). Another characteristic is the trend of decreasing use of arable land: while in 2002 94.7 % of arable land was cultivated, this number fell to 82.8 % (over 1.6 million ha in 2008) (ZAHIU, 2010). The reasons for this phenomenon are multi-fold, and occupy the entire spectrum of socio-economic issues that surround Romanian agriculture: an ageing workforce, rural-urban migration, land fragmentation, low level of investments, and the generally low profitability. Certainly there is also a link to the ongoing structural change. At the level of the EU-27 between 2003 and 2007 the absolute number of farms had decreased by 7.8 %, but in Romania the change was the most drastic with 28.5 % of farms disappearing. Yet the percentage of farms producing mainly for their own consumption<sup>19</sup>, remains high (80.7 % of all farms) (EUROSTAT, 2010).

<sup>18</sup> The most important CAP subsidy available is the Single Area Payment Scheme (SAPS) which in 2011 was raised to 100 Euro per ha. It is complemented by the so-called Complementary National Direct Payment, which granted a maximum of 73.5 Euro per ha in 2011 (AE, 2011). Further subsidies in 2011 are aimed at specific issues, such as the use of gasoline, the insurance of agricultural production, the processing of tomatoes, producers' groups in the fruit and vegetable sectors, and the restructuring of the wine sector. For the farms in the vegetable sector which are undergoing conversion to organic agriculture, a total of 2.37 million Euro was granted in 2011.

<sup>19</sup> Holdings consuming more than 50% of their own production.

The per-capita incomes of the Romanian rural population are very low. Although Romania has a very large amount of labour occupied in agriculture, each person employed in the sector performs on average only 0.32 AWU (annual work unit) while the EU average is 0.40 (POPESCU, 2011). Adding to that, agriculture is one of the least rewarded economic sectors (Figure 3). About 45 % of rural incomes are earned through the sale of agricultural products (NRDP, 2011). In 2007, the most important components of the income portfolio in rural areas have been earnings from agriculture (20.6 %) and the value of products for self-consumption (47.5 %) (EUROSTAT, 2007). There is a stringent lack of modern technological endowment and machinery which contributes to a low productivity of the sector (GOSA, 2008). Another factor that contributes to low incomes is the fact that the farming population is facing a significant ageing trend. Table 4 presents the situation only until 2007, but one can safely assume that the aging trend is even more severe since 2007, when the EU-membership brought employment (formal or informal ) opportunities for Romanians in many of the member states. Since Romania's accession to EU, labour-induced migration increased. It is estimated that about 2 million Romanians lived abroad in 2011, and a large part of them are performing seasonal work in agriculture. In 2008, the largest corridors of remittances in the EU has been from Spain and Italy to Romania, reducing the national account deficit by 50 % (EUROSTAT, 2010).

**Figure 3: Average gross earnings, by activity in 2008**



Source: NSI, 2011.

**Table 4: Age structure of Romanian farmers (%)**

Age groups	2002	2007
<35 years old	8.9	4.4
35-44	12.1	11.9
45-54	18.9	17.0
55-64	22.2	22.6
>64	38	44.2

Source: ZAHIU and TOMA, 2010, p. 157.

## 5.2 Agricultural production: The importance of and the market for fruit and vegetables

The main categories of crops cultivated in Romania are cereals, oilseed plants, vegetables, potatoes, pulses, and sugar beet. The main cereal crops are maize (44.3 % of surface of cereal cultivation) and wheat (40.7 %). For the purpose of the present study our focus is particularly on vegetable and fruit production, the typical products of CSA partnerships. Vegetable and fruit production is done on about 6.5 % of the arable land (including potatoes) (AE, 2007). Romania is one of the top vegetable producers in the EU, occupying for example the fifth place in 2007. In the case of fruit production, the potential is extremely underutilized, because although the surface occupied by fruit trees is significant (almost 200,000 ha) the production is low due to low yields. The orchards are said to be ageing and the land they occupy very fragmented, thus the sector is not competitive (ZAHIU, 2010).

Vegetable cultivation is a work-intensive activity, and requires a larger workforce and often incurs larger production costs than for other crops. The average yield per hectare of vegetables in Romania is presently half of that in Western European states (ZAHIU, 2010). The quantities produced are prone to fluctuation. Price volatility is intrinsic due to the seasonal and perishable nature of the products (ZAHIU, 2010), but there are more typical risks for vegetable farmers such as when contractual provisions are not respected by the buyers. The national fruit and vegetables sector also suffers because local producers cannot compete with imported produce, which often have a lower price and a quality which consumers prefer.

The national market for fruit and vegetables is characterized by relatively low prices, as illustrated by the comparative price indices (Table 5) where the values from 2009 show that Romanians pay much less for fruit and vegetables than other Europeans.

**Table 5: Comparative price levels indices, food products, 2009 (EU-27=100)**

	Food	Bread and cereals	Meat	Fish	Milk, cheese and eggs	Oils and fats	Fruits, vegetables and potatoes
EU-27	100	100	100	100	100	100	100
Romania	65	61	58	72	93	79	58

Source: EUROSTAT, 2010.

In Romania, on average the largest share of a household's income was spent on food items (44.3 % in 2008). It has to be noted that there are two consumption models, the urban and the rural one, where self-consumption plays an important role. However, the tendency shows that self-consumption is reducing both in rural and urban areas. As shown by a 2005 Eurobarometer study (EUROSTAT, 2008), the most prevalent change in diet at the European level consists in a higher consumption of fruit and vegetables. However; the opposite is true for Romania where the per capita consumption of (especially fresh) fruit and vegetable products is decreasing (Table 6).

**Table 6: The average annual consumption of vegetable products per inhabitant in Romania (in kg)**

	2006	2007	2008	2009
Cereals and cereal products	365.2	362.9	358.1	352.5
Potatoes	97.4	96.1	99.5	93.1
Fresh vegetables and vegetable products, pulses and melons	181.7	164.1	176.0	168.2
Fruit and fruit products	83.2	67.8	62.9	62.3
Sugar and sugar products	29.0	24.9	23.2	25.8
Vegetable fat	15.4	13.8	14.6	16

Source: AE, 2011.

Fruits and vegetables belong to the most exported agricultural goods produced in Romania (Table 7). The top two goods are animals (and animal products) and vegetables, out of which, the export of vegetables surpassed imports by about 500 million Euro.

**Table 7: Trade of agricultural products from 1 January to 31 December 2010**

	Export			Import			Deficit (mil Euro)
	To EU (mil. Euro)	Total (mil. Euro)	% of export Jan-Dec 2009	From EU (mil. Euro)	Total (mil. Euro)	% of import Jan-Dec 2009	
Live animals & animal products	339.6	433.8	133.2 %	919.2	983.4	88.1 %	549.6
Vegetables	1017.2	1636.9	145.5 %	907.2	1137.5	113.4 %	- 499*

Source: Adapted from AE, 2011.

Note: The term "deficit" does not apply to this value which represents a surplus of exports to imports in value of vegetables.

### 5.3 Organic agriculture in Romania

Organic agriculture in Romania represents a relatively new and emerging chapter. Its importance is linked to "protecting water and soil resources, conserving biodiversity, and the fight against climate change, as well as serving the growing European market" (NRDP, 2011: 40).

The official definition for organic agriculture<sup>20</sup> applied in the EU stipulates that this type of production contributes towards a better supply-demand balance while protecting the environment and the conserving the countryside (EC, 1991). The specific rules of organic farming have been laid down in technical terms accompanied by lists of products which are accepted as fertilizers, plant-protection products, etc. All stages, from production to marketing are subject to inspection bodies and labelled with formally recognised labels at European and national level.

<sup>20</sup> The term organic agriculture will be used interchangeably with the terms ecological and bio agriculture.

In 2004, the European Organic Action Plan (EC, 2004) was published to offer policy guidance towards the development of the organic farm sector in the member states, so as to satisfy consumer demand and also to support the provision of public goods such as environmental protection and animal welfare. The plan aimed at instructing national regulations towards strengthening the support of farmers through national rural development programmes and increasing the awareness of the consumers. Since the 1990s, the CAP provides possibilities for support of organic agriculture through the agri-environment regulations.<sup>21</sup>

Traditionally, farming in Romania used as main input natural fertilizer, but synthetic inputs have become increasingly accessible to Romanian farmers in the past twenty years (SIMON, 2007). Yet, much of the production is still close to organic standards. Despite this, conversion to certified organic production poses a significant risk (NRDP, 2011). Labour intensity is higher, the yields are smaller, and – depending on the sales outlets – the produce often cannot stand the competition from conventional produce as long as consumers are almost unaware of the difference between the two types of agriculture. Instead of obtaining official certification, small farmers who practice a form of semi-subsistence agriculture often advertise their products on the market as "traditional" or "natural". The reason for this is that the costs of certification impose a high threshold for the majority of Romanian farmers to become organic farmers.<sup>22</sup> However, only those who enter the certification process can apply for subsidies such as the support for transformation from conventional to organic production (between 1500 and 3800 Euro per farm).

In 2010, there were in total 3,155 operators registered as organic with the MADR, out of which 2,533 were producers (the rest being processors). After an increase between 2006 and 2008, the number of organic producers decreased slightly until 2010, signalling either a return of some of the operators to conventional agriculture, or their exiting of the farming sector. The size of arable land cultivated under ecological agriculture regime seems to be in a continuous growth (Table 8), although it makes up only a small share of the total land. The surface under organic agricultural management was 1.22 % of the total agricultural land in 2009 (KILCHER, 2011).

**Table 8: Dynamic of Operators and Surfaces in Ecological Agriculture in Romania**

Indicator	2006	2007	2008	2009	2010
No. of operators registered in ecological agriculture.	3,409	3,834	4,191	3,228	3,155
Arable land crops: cereals, etc. (ha)	45,605	65,112	86,454	110,014	148,034
Meadows and pastures (ha)	51,200	57,600	46,007	39,233	31,579
Orchards and vineyards (ha)	294	954	1,518	1,869	3,093
Forests used for collection of wild fruits and plants (ha)	38,700	58,728	81,279	88,883	77,294

Source: MADR, 2011.

<sup>21</sup> The main reasoning behind the payments for organic agriculture is the compensation for the extra labour and lower yields that farmers obtain through this agricultural method, but also to compensate for the societal benefits such as environmental protection; with the receipt of payments, the farmer commits him or herself to a period of five to seven years of maintaining organic farming. The financial sources for the payments are CAP budget<sup>21</sup> and member states at national level, in a pre-determined combination of co-financing (EC, 2010).

<sup>22</sup> In 2011, there were 16 certification and inspection bodies registered with the Ministry of Agriculture and Rural Development (MARD, 2011) the majority of which were foreign companies. The cost of certification depends on the farm area and type of production thus we cannot provide general estimations, but from interviews with farmers and experts we note that it is considered rather high.

Considering the types of crops by land area of total arable land certified in 2008, cereals dominated (66.8 %), followed by industrial crops (26.9 %), and green fodder (4.3 %); fresh vegetables occupied the smallest share (0.4 %) (EUROSTAT, 2010). There is a very low availability of organic vegetables, especially since small farmers who might produce them for subsistence do not have the capacity and cannot comply with hygiene regulations to bring them on the market (SACHSE, 2011). Most of the certified Romanian farms are large (> 100 ha); they can manage the conversion more easily and have the capacity to produce for the European market. In all categories of farms by size, the presence of organic farming seems rather insignificant (Table 9).

**Table 9: Percentage of farms with organic farming methods from total number of farms, 2007**

	Agricultural area (ha)				All farms
	<20	20-<50	50-<100	>=100	
Organic farming	0.1	0.2	0.3	0.5	0.1

Source: EUROSTAT, 2009.

Still, the number of national associations dedicated to ecological production and marketing in Romania is growing. One example being the Bio Romania Association, composed of a large array of actors in the sector, who initiated the Romanian Organic Forum, a platform of interchange and promotion of Romanian ecological products. Presently, according to the MARD (2011), 32 institutions and organizations (both public and private) are active in the field of ecological agriculture and rural development, and are in charge of promoting the concept to consumers, and of informing producers. The National Federation for Ecological Agriculture was founded in 2002 out of five organizations in the field (SACHSE, 2011).

The Romanian market for organic products is best described in a 2010 study of a private market research group from Bucharest.<sup>23</sup> According to this study the Romanian market for organic products represents less than 1 % of the market for consumption goods. Up to 70-80 % of the organic goods are imported: mainly from Germany, France, Austria, Italy and Greece. The first specialized bio store appeared in 2008, in Timisoara, and until 2010 ten more such shops opened in Bucharest. Also the big hypermarket retailers started offering bio products. Additionally, specialized online shops appeared. The market share of specialized bio shops is low (less than 5 %). Most organic products are sold in Romania in the general retail trade (80 %) or on the local marketplaces (KILCHER, 2011). Some farms market their organic products directly and there is a growing movement of organic Slow Food in major cities (SACHSE, 2011).

Especially fresh products, including fruits, vegetables and dairy products, are up to now difficult to find even in specialized shops (SACHSE, 2011). They have a very short shelf life and incur losses of about 25-30 %. Specialized bio shops in Romania face a lack of local producers, and also the number of importers is small. Other issues are financing, weak or no regulation for supply, the poor awareness of most consumers, and especially a lack of a critical mass of consumers. Consumers tend to be loyal to bio shops, and about 60 % come back for purchases, although the amount of organic products purchases makes up to no more than 5 % of their household's food purchase.

Romanian consumers are among the most vulnerable consumers in the EU-27 with a low level of confidence and knowledge as consumers, and not feeling protected by consumer law (EUROBAROMETER, 2011). One significant problem for the marketing of organic products in

<sup>23</sup> The study has been privately contracted. It is available to the authors but was not made public, thus it cannot be formally cited. If no other source is given, we refer to this study in the remaining part of this section.



Romania is the poor understanding of the concept of organic agriculture; many are convinced to know what organic products are, but are in fact often misled by other labelling such as "natural" or "traditional". When asked if they consume ecological food, they refer to the fruits and vegetables from the marketplaces or even to those from the supermarkets, which they qualify uncritically as healthy and natural. They hold the belief that all fruit and vegetables on the market have not been cultivated with the use of synthetic inputs or pesticides. Only 15 % of Romanian consumers could recognise the European organic farming logo (Figure 4). This lack of awareness renders some ecological producers that are present on the vegetable marketplaces unable to ask for a higher price than the market price for conventional products because otherwise they would not be able to sell at all.

**Figure 4: The Romanian and EU logo for organic agriculture**



Whereas the internal market for organic products seems generally underdeveloped, Romania's exports to other EU member states and non-EU trade partners are consistently increasing. This offers new opportunities also to the local producers of ecological products. It has been estimated by the president of the "Bio-Romania" producers' association that in 2011 the value of exports of organic produce grew with 150 %, reaching 250 million Euro. The main export products are cereals, vegetables, wine, tea, honey and berries, with a demand from the trade partners higher than what Romania can presently supply (AGRA EUROPE, 2011). Often ecological raw material is exported to EU partners, where the processing facilities are located. The processed goods are then partly re-imported and (in the limited niche markets described) marketed at a comparatively high price (SACHSE, 2011).

## 6 COMMUNITY SUPPORTED AGRICULTURE IN ROMANIA

This chapter presents the findings of the mixed-method research we conducted about the Romanian CSA initiative in Timisoara. We start with a brief description of the region and continue with the timeline of the Romanian CSA partnerships. Socio-economic features and relevant factors with regard to the CSA membership are discussed for both sides, the consumers and the farmers. Finally we present important benefits and costs of taking part in the CSA.

### 6.1 The location of the case CSA partnerships: Western Romania and Timis County

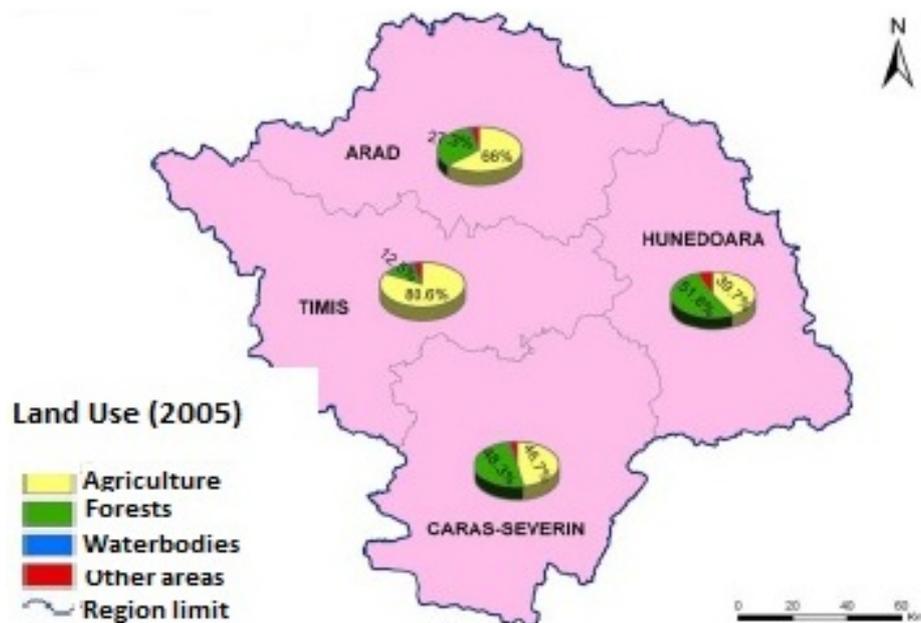
The CSA initiatives that are in the focus of our study have emerged in a part of Romania that is known as being comparatively well-developed and progressive: Timis county in Western Romania. We will briefly present a few indicators about the region, which is part of the historical region of Banat (Figure 1).

The Western region borders Hungary and Serbia and was constituted as a Development Region<sup>24</sup> in 1998 by grouping four counties: Timis, Arad, Caras-Severin, and Hunedoara. In terms of surface, it represents 13.4 % of the Romanian territory, a surface comparable to Belgium (Figure 5).

This region is one of the most developed regions in Romania, a fact that is directly reflected in the average monthly income and the living standard of the population. The entire set of economic indicators stands above the average values at national level (ARDW, 2007). The percentage of urban population in this region was 63.6 % in 2005, with a trend of in-migration from other regions (ARDW, 2007). The GDP per capita in 2004 in Timis and Arad counties surpassed the national average with 38.6 % respectively 18.6 % (ARDW, 2007). The unemployment level in Timis (3.3 %) was the third lowest in the country in 2007, after Bucharest (1.7 %) and the North-West Region (2.9 %) (NSI 2008). The sectors contributing most to the region's GDP are: services (50.3 %), industry (28 %), agriculture (16 %), and constructions (6 %) (ARDW, 2007). The share of agriculture in employment is lower than in other parts of the country, because rural labour-force is being more and more employed in industry and services (NRDP, 2011). According to the Agricultural Census 2010, the Western Region has the largest average farm size (Table 10). The county of Timis registers a low number of farms (under 80,000 farms) compared to other counties, but a very high average farm size. At the same time, Timis is among the three counties with the largest agricultural surface utilized, over 500,000 ha, representing 80.6 % of the entire surface of the county (ARDW, 2007).

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<sup>24</sup> One of the eight regional divisions in Romania created to better plan, coordinate and access funds for regional development, but with no administrative status and no executive body.

**Figure 5: Map of the Western Region land use**

Source: ARDW, 2007.

**Table 10: Total Number of farms and average farm size (UAA) of Romanian regions**

Development Region	Total number of farms	1000 UAA (ha)	UAA/farm (ha)
North-West	521,256	1,806	3.47
Centre	374,293	1,626	4.34
North-East	775,342	1,938	2.5
South-East	443,796	2,193	4.94
Bucharest-Ilfov	29,102	62	2.14
South-Muntenia	740,432	2,333	3.07
South-West Oltenia	554,660	1,607	2.90
West	263,004	1,730	6.58
Timis County	75,990	660	8.69

Source: Agricultural Census, 2010.

There are 58 organic producers in Timis (MARD, 2011), one of them being Interbio, a large-scale cereal producer with an arable surface of 2000 hectares. However, in the Western region, there is also the biggest number of small scale (starting from 2 ha) organic farms in the country (SACHSE, 2011). According to the expert interview with the representative for organic agriculture in Timis, the entire organic production of large organic farms is exported and does not reach the national market.

## 6.2 The ASAT CSA partnerships: A timeline

ASAT is the acronym for the *Association for the Support of Traditional Agriculture* and represents CSA-type partnerships between residents of Timisoara and farmers from its vicinity (within a range of 50 kilometres including from the neighbouring county Arad). In their own view "ASAT is the only CSA program in Romania. There are other initiatives of direct marketing from producers, but they cannot be classified as CSA because they lack the essential characteristics." (Sergiu Florean, Communication and social marketing officer at CRIES NGO).

ASAT was mainly inspired by a French CSA entitled *Association pour le Maintien d'une Agriculture Paysanne*<sup>25</sup> (AMAP).<sup>26</sup> The founders of AMAP visited Romania in 2008 in their function as presidents of *Urgenci* with the aim of spreading the CSA model to Eastern Europe. In March 2009, the *Centre of Resources for Solidary and Ethical Initiatives* (CRIES) led a campaign to inform urban dwellers in Timisoara and the farmers in the vicinity about the idea of a CSA partnership under the umbrella of an *Association for Supporting Traditional Agriculture* (ASAT). This campaign was financed by *Fondation de France*<sup>27</sup>, supported by local authorities, and was linked with *Urgenci*. Moreover, CRIES had initiated CSA under the umbrella of IRIS<sup>28</sup> (*European Inter-Network of Ethical and Responsible Initiatives*) including the city of Timisoara among the Responsible Territories for Social Cohesion and Sustainable Development.

According to the records of CRIES, the first producer, located 50 kilometres from the town of Timisoara, was selected after an evaluation by AMAP founder Denise Vuillon from *Urgenci* and the first person interested in becoming a "consumer-partner". The criteria of the farmer's selection were:<sup>29</sup>

- Capacity of production
- Experience in vegetable production
- Transparency regarding the process of production
- Commitment to 100 % organic agriculture<sup>30</sup>
- Knowledge transfer from similar initiatives abroad

Subsequent to the initiation of his project, the farmer visited France to learn more about the CSA system. The project started with 18 families, and later grew to 30 families in the second year. In the 2009 season, the farmer was providing his customer-partners with a weekly big basket (planned for a family of 3 adults or 2 adults and 2 kids) or a weekly small basket (planned for a family of 2 adults). In 2010 he applied with a certification body to become a certified organic producer, and took part in the International *Urgenci* Colloquium in Kobe, Japan. This event offered the opportunity to visit local *teikei* farms and peasants' markets, and to officially register the first CSA partnership in Romania in the *Urgenci* network. At the time of the study, around 200 families were registered as consumer-partners.<sup>31</sup>

In 2010, another producer started building up his network in the town of Arad (5 families at the beginning) and under the coordination of CRIES initiated another 22 partnerships in Timisoara in 2011. In 2010, a different producer from the county of Arad got in touch with CRIES, was visited by two of the NGO members, was deemed suitable and started registering consumer-partners for the 2011 season. Because there was already a waiting list for the partnerships with the existing producers, he benefitted from this waiting list and gradually accepted new members during the 2011 season, until he reached a number of 30 consumers.

<sup>25</sup> Literally "Association for the Preservation of a Peasant Agriculture".

<sup>26</sup> This concept appeared as the attempt of Denise and Daniel Vuillon, a farm family to implement the idea that their daughter brought after visiting an already famous CSA project, Just Food, in New York (HENDERSON, 2007).

<sup>27</sup> Independent private charity organization supporting projects in the sphere of vulnerable individuals, research and the environment in France and abroad.

<sup>28</sup> Inter-network of responsible economy initiatives worldwide founded in 2007 by bringing together different responsible economy initiatives: Fair Trade, ethical consumption, local partnerships between farmers and consumers, responsible finance and social integration enterprises with the support of the Council of Europe and Trento Autonomous Province, Italy.

<sup>29</sup> From <http://asat.ecosapiens.ro/>, accessed July 2011.

<sup>30</sup> Here we refer to strictly respecting the practices of organic agriculture, without the obligation of being certified organic.

<sup>31</sup> Our study deals only with the partners from Timisoara, while there were more consumers from Lugoj (a nearby town) and neighbors from his own village. The number of consumer-partners in this ASAT considered for the present study is 111.

### 6.3 The CSA actors

The CSA actors of our case study are the NGO that initiated CSA in the region and the participating farmers and consumers.

#### 6.3.1 CRIES: The NGO that started the CSA initiatives

CRIES is a local NGO with the main aim of promoting social economy in Romania following the *European Platform for Ethical and Solidary Initiatives (IRIS)*. Its name stands for *The Resources Centre for Ethical and Solidary Initiatives*. It was founded in 2009 and is presently staffed by seven people running two projects, providing assistance in one other project, and implementing the ASAT CSA partnerships (Figure 6).

**Figure 6:** The logo of the CSA developed by CRIES



The NGO is financed mainly from the European Social Fund for its current projects "Good Practice Models in the Field of Social Inclusion" and "The Role of Social Dialogue in Promoting Active Social Inclusion". Mihaela Vetan, the NGO's president, was fond of the idea of starting CSA partnerships already since a longer time. She believed in the opportunity of developing such partnerships in Romania and promoted ASAT as an alternative development model. Today CRIES is developing a network to support ASAT at the national level, around the main urban centres. The aim is to multiply partnerships and offer support (distribution points, space for consumers to meet, make them known to the community) without obtaining any financial benefit.

CRIES has been a crucial intermediary between the consumers and producer when the local CSA groups were founded. In Timisoara, the NGO's office hosts the distributions of two of the three ASAT partnerships. It was the main promoter of the idea and also took over responsibility for attracting the interest of the consumers. The first ASAT farmer described the founding phase as follows: *"I did not lift a finger to get consumers to join, they [CRIES] really promoted us, the producers, 100 %, they also have the consumers in view, but they think mostly of the producers."* However, CRIES intends to phase out their intervention once a CSA functions. This strategy is justified by the lack of funds for coordinating ASAT, but also by the aim to establish self-sustaining CSAs which the farmers can plan and manage themselves.

The initial promotion took place through outdoor advertising, blogs, e-mailing, word of mouth, but also online platforms dedicated to social inclusion. The name of the first campaign initiated was "Eat Healthy and Support Local Agriculture" and it consisted in the printing of a large and colourful poster (Figure 7) which was spread around Timisoara, in public places and even in public transportation.

**Figure 7: Eat Healthy and Promote Local Agriculture: The poster for promoting ASAT in 2009 developed by CRIES**



# Consumă sănătos și susține agricultura locală



**Ți-e dor de gustul roșiei de la țară?  
Preferi produsele cu adevărat proaspete?  
Vrei pentru familia ta o alimentație sănătoasă?**

**ASAT** îți asigură accesul la produse locale, proaspete și sănătoase, obținute în mod tradițional în mica gospodărie țărănească.

**ASAT** îți asigură accesul la informații reale despre produsele achiziționate, prin comunicarea directă între consumatori și producători.

**ASAT** susține practicarea unui preț corect pentru produsele achiziționate, preț care nu se modifică pe întreaga perioadă a contractului încheiat cu producătorul.

Pentru mai multe informații despre **ASAT**, caută-ne la tel. 0741-232602, [asat\\_tm@yahoo.com](mailto:asat_tm@yahoo.com) sau vizitează-ne la <http://asat.ecosapiens.ro>.

**ASAT** (Asociația pentru Susținerea Agriculturii Țărănești) este rezultatul unui demers de economie alternativă inițiat în 2007 în cadrul proiectului Timișoara - teritoriu responsabil pentru coeziune socială și dezvoltare durabilă. Campanie dezvoltată de către Platforma IRIS, Rețeaua URGENCI în parteneriat cu Primăria Municipiului Timișoara și Instituția Prefectului Timiș.

Source: [www.asat.ecosapiens.ro](http://www.asat.ecosapiens.ro) accessed December 2011.

The poster was appealing to the urban people's nostalgia for the countryside and was emphasizing the taste, freshness and health effects of traditionally produced food<sup>32</sup>. Other important aspects promoted were the transparency about how the food was produced and the negotiation of a fair price for the products, fixed for the entire season. Later on, the first producer got a lot of publicity in the local media and the involvement of the NGO for promotion became less necessary.

For two of the farmers, CRIES manages the farmer-consumers communication via weekly e-mails with reminders about the pick-up and information regarding the content of the share. During the first two years they were also sending a periodical newsletter which informed the consumers about the farm works, and the farmer. They still hold information meetings with the groups of consumers or interested audience. In 2011, potential consumers in Bucharest were addressed in meetings with the plan to spread the concept to other major towns in Romania in 2012: Arad, Oradea, Cluj-Napoca, Sibiu, Odorheiu Secuiesc, Iași and Bucharest.

### 6.3.2 *The farmers*

Three farmers operate as ASAT farmers in a partnership with urban dwellers (most of which from the city of Timisoara). Some interesting farm and personal characteristics of these ASAT farmers are shown in Table 11 and 12. The farmers are numbered according to the chronology of their CSA initiation as Farmer 1 (from Belint village), Farmer 2 (from Cuvin village) and Farmer 3 (from Firiteaz village). They are all full-time occupied with vegetable farming.

No absolutely clear pattern of a typical ASAT farmer could be identified. There are two very small farms and one slightly bigger, there are two male and one female farmer, all in their forties or fifties. Their farm experience is between 6 and 20 years. Only the biggest of the farms is officially registered and is currently in the process to be certified for organic certification. The common features that the ASAT farmers show are rather to be searched for in less obvious indicators: interestingly, none of the three has a real rural background, but they came to farming through marriage or the decision to move to the countryside. Farmers are relatively well-educated. The ASAT producers see themselves as entrepreneurial farmers, with a desire to go beyond subsistence-farming. They are very active also with regard to their communities, e.g. as a member of church congregation, clubs, or even a local political party (but none of them is member of a farmers' organization). It thus seems that CSA as a rural innovation is in general suitable to even the smallest farms, but it needs an active personality, probably someone who has experiences and shares the views of the CSA urban target groups. Indeed, already CONE and MYHRE (2000), who researched eight CSA farms in the US, found that none of the CSA farmers in their sample has farmed as adults before starting small scale-production of vegetables. Instead they were all college educated and had experience in non-farm occupations. Further, all farmers aspired the CSA farm to fully support their family's lives.

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<sup>32</sup> The term "traditional agriculture" should be understood as agriculture without synthetic inputs, with the same or similar methods to organic agriculture. It is often intended to mean "home made" or "produced according to age old traditions". Formally, the regulations for producing and marketing such products are less demanding than the standards for organic agriculture.

**Table 11: The biographical information of the ASAT farmers**

	Gender	Age	No. of children	Studies	Farm income* (RON)	Speciality studies
Farmer 1	male	50	0	High school (12 years)	36000	Vegetables & cereals farming
Farmer 2	female	53	1 (adult, abroad)	High school (12 years)	24000	Vegetables farming
Farmer 3	male	44	5 (school attending minors)	Secondary school (8 years)	32000	None

Source: Own data.

Note: \* Net farm income per household and year in RON, Romanian New Leu currency. The RON was at the moment of the study fluctuating around 0.22 Euro.

**Table 12: The farm holdings of the ASAT farmers**

	Arable land in ha (thereof rented)	Family labour (h/week)	Crops	Animals	Registered as operating farm?	Certified as organic farm	Experience in farming (years)
Farmer 1	5.86 (0)	180	Cereals vegetables melons pasture	Poultry	Yes	Conversion period	20
Farmer 2	0.6 (0.6)	120	Cereals vegetables melons	Goats poultry	No	No	8
Farmer 3	1.2 (1.0)	120	Vegetables fruit herbs	Pigs goats poultry rabbits	No	No	6

Source: Own data.

### 6.3.3 The consumers

The data on ASAT consumers refers to 40 participating households and their 103 household members. About half of the questionnaires were filled in by men, the other half by women.<sup>33</sup> The average age of the household members is 33 years with a range between 1 and 78 years. We compared the ASAT respondents to the age groups in their county and noticed there is a larger young and mature segment and a much lower percentage of population over 65 years old (Table 13).

<sup>33</sup> This is rather surprising as the literature shows that the majority of CSA members is usually female (e.g. CONE and MYHRE, 2000; CHEN, 2013).



**Table 13: Gender and average age of the respondents (all household members)**

	ASAT Consumers (%)	Timis County (%)	Age groups ASAT consumers (%)			Age groups Timis County (%)		
			<14	15-64	>65	<14	15-64	>65
Male	49	47.85						
Female	51	52.15						
Total	104	100.00 [658 837]	17.3	76.9	5.8	13.9	71.7	14.4

Source: Own data and NIS, 2006.

Note: Age groups for Timis County are predictions for 2010 based on 2005 data.

Out of the 40 households, 24 had children up to fourteen years old, and 8 of them had children under the age of 5 years old. The majority of households were composed of two or three members; there were only three households with four members and only one with six members. We found also four households with just one member.

Since the three ASAT partnerships are different from each other in some regard we decided to present data along the three ASAT groups. Twenty-seven respondents belong to the group of Farmer 1 (18 % of his consumers), five respondents belong to the group of Farmer 2 (25 % of her consumers), and eight respondents belong to the group of Farmer 3 (26 % of his consumers).

The results in terms of the consumers' education and income validated our Research Hypothesis 1. CSA consumers have an above average educational level, many work in academic or management positions, and they have access to relatively high incomes. This hypothesis is in line with what many other studies find (e.g. CONE and MYHRE, 2000; CHEN, 2013; POLE and GREY, 2013).

The largest percentage of respondent household members had completed graduate and post-graduate level education (81.5 %), while at the level of the county, the people with high school level education predominate (Table 14). The percentage of ASAT consumers without education (or primary education only) can be explained by the larger proportion of young children, which were not excluded when calculating this variable. The main fields of studies of the ASAT consumers were in "maths and informatics" (25.6 %) followed by "social sciences" (20.7 %) and "humanities" (15.9 %).

**Table 14: Level of education of ASAT members compared to their region and their field of studies**

Educational level	Field of Studies of ASAT consumers			
	ASAT consumers (2011)	West Region (2005)	Social sciences	20.7
No education & primary education	7.6	3.8	Humanities	15.9
Middleschool	5.4	18.1	Natural sciences	6.1
Highschool	5.4	60.2	Maths, informatics	25.6
Superior & post-highschool training	81.5	17.9	Applied & professional sciences	19.5
			Arts	4.9
			Other	7.3

Source: Own data and NIS, 2006.

A large part of the consumers (40 %) employed were working in services and another 25 % in management and academic (Table 15). Only a very small segment of respondents (7 %) was employed in industry, while for Timis county this represents the second largest employment sector (28 %). A significant percentage of consumers also had a secondary occupation (14 %).

**Table 15: Employment sectors of ASAT consumers and inhabitants of Timis County**

ASAT consumers		Active population Timis County (2005)	
Services	40.3	Services	41.5
Industry	6.5	Industry	28.0
Management and academic	24.7	Agriculture	24.9
Other	28.6	Constructions	5.6

Source: Own data and NIS, 2006.

Not all of the employed respondents offered information about their income, but the average of the values stated raised to 2,233 RON or 532 Euros<sup>34</sup> per month (Table 16). Some respondents declared that they work more than 40 hours per week, thus the average obtained was 40.2.

**Table 16: Net average monthly income of respondents compared to the county average**

Net average income (RON)			
Timis County	ASAT consumers		
1,533	2,233/2,071*		
	Highest income	10,000	
	Lowest income	500	

Source: Own data and NIS, 2010 (data for December 2010).

Note: \* Average obtained by eliminating one extreme outlier.

In order to find out about the connection of respondents' household with traditional agriculture, we inquired about whether they spent their childhood in the countryside. This was true for a bit over a quarter of respondents. On average they visit the countryside 4.2 times per year, the majority because they have relatives in the countryside (63.9 %) (Table 17). CONE and MYHRE (2000) also present results that show that consumers have some connection to the rural environment: for example they grew up on farms, have visited often, or have a garden at home.

**Table 17. The respondents' connection to the countryside**

Did you spend your childhood in the countryside?		How many times per year do you visit the countryside		Which are the reasons for your visits to the countryside ? (%)	
Yes	26.7	Maximum	24	I own property there	8.3
No	73.3	Minimum	0	I have relatives there	63.9
		Average	4.2	I am used to spending my vacation there	8.3
				Other	19.4

Source: Own data.

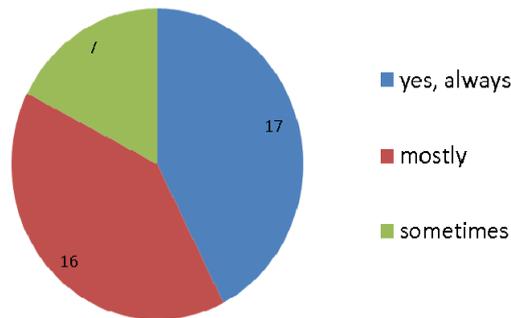
In order to measure an aspect of the respondents' social capital we inquired about their membership in organizations. Such information may contribute to explaining the consumers' propensity to join a solidarity economy project like ASAT, which requires a certain level of their involvement. We found that a third were members in at least one organization. The type of

<sup>34</sup> At the exchange rate of 4.2 RON per Euro, valid when the study was conducted.

organizations listed were sport clubs, the Red Cross, political parties, the Association for Integration of Youth, CRIES, academic organizations, charity organisations, etc..

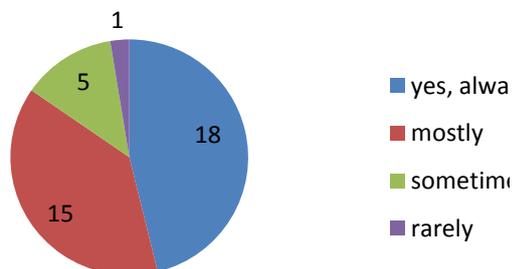
As part of testing Hypothesis 1, we further inquired about the consumers' habits when purchasing food, and about the changes in behaviour since they joined the ASAT program. All of the consumers were concerned with the origin of the food they purchase, and most of them to high degrees (Figure 8). When it comes to processed food, they testify to check the label and the ingredient content (Figure 9).

**Figure 8: Do you check the origin of your food on the packaging, or ask the seller about it?**



Source: Own data.

**Figure 9: Do you check the ingredients of your processed food on the packaging?**



Source: Own data.

As expected, the consumer behaviour changed since they joined ASAT. The number of trips to the usual outlets (marketplaces and supermarkets) reduced, which can be an indication of less purchases from those channels. For example, in the case of supermarkets, out of the total number of respondents, a small part never bought vegetables there before the ASAT membership; the percentage grew significantly after becoming ASAT members: 74 % of respondents totally disagreed and disagreed that they still buy vegetables from a supermarket. Overall, we registered a significant decrease in trips to the supermarket after joining ASAT (Table 18). Shopping for vegetables in the town market also registered changes: a large segment (31 %) stopped sourcing their vegetables from the town market after joining ASAT, and the trend shows an overall decrease in the number of trips to the town market in the "after" situation. An interesting fact is that almost 4 % of respondents started using the town market more after become ASAT members, and declare shopping there four times a week (Table 19). We also inquired about outlets specialized in ecological food (shops, markets), but the respondents did not mention any and even commented about their absence in Timisoara.

**Table 18: How often did/do you shop for vegetables in the Supermarket? (% respondents)**

Before becoming and ASAT member		After becoming and ASAT member	
Never	6.5	Never	31
Once a month	–	Once a month	6.9
Twice a month	–	Twice a month	17.2
Once a week	51.6	Once a week	37.9
Twice a week	32.3	Twice a week	6.9
Three times a week	9.7	Three times a week	–

Source: Own data.

**Table 19: How often did/do you shop for vegetables in the town market ? (% respondents)**

Before becoming and ASAT member		After becoming and ASAT member	
Never	–	Never	40.7
Once a month	10	Once a month	18.5
Twice a month	3.3	Twice a month	7.4
Once a week	50	Once a week	22.2
Twice a week	26.7	Twice a week	7.4
Three times a week	10	Three times a week	–
Four times a week	–	Four times a week	3.7

Source: Own data.

In order to compare other changes which come with reducing the number of trips to the supermarket or to the town market we asked the respondents to estimate the distance they usually need to travel between home and the outlet where they purchase food. We computed their answers into averages and found that the longest distance they need to make is the one to the ASAT distribution point. This leads us to conclude that the consumers are making a bigger effort to source their food from ASAT than from any other outlet available, signalling the level of commitment to incur extra costs of time and money to be part of the partnership. An element to help build the profile of the consumers is the means of transportation to the outlet. From the data related to income of the ASAT consumers we derive that a large majority from them have an income much higher than the region's average. This finding is apparently consistent with the high percentages of personal car use for food shopping. It seems, however, that the most environmentally-friendly scenario out of the three (shopping from a supermarket, shopping from the town market or being an ASAT member) is to shop from the town market (Figure 11), because most of our respondents (45.2 %) walk there, and use their personal car the least. Given the much larger distance to the ASAT distribution point we would have expected more personal car use, but the consumers are using the bicycle (Figure 10), public transportation and taxis more than for shopping in the supermarket instead (Table 20). We could interpret this finding as a more environmentally-aware attitude which for some of the consumers came along with the quality of being an ASAT member.

**Figure 10: An ASAT consumer picking up her weekly share by bike****Figure 11: Town market Badea Cartan and supermarket Auchan**

*Both market and supermarket are frequented less by the ASAT consumers since they entered the partnership.*

**Table 20: The average distance and means of transportation of ASAT consumers for food purchasing**

	The distance needed to travel to the following outlets (km)		
	Supermarket	Town market	ASAT distribution point
	2.23	2.96	3.25
	Which are your usual means of transportation from home to the outlets ? (% respondents)		
Personal car	67.6	32.3	56.7
Walking	16.2	45.2	6.7
Bicycle	8.1	12.9	20.0
Public Transport	5.4	9.7	10.0
Taxi*	2.7	–	6.7

Source: Own data.

Note: \* Taking taxis is quite common in Romania because it is relatively cheap on short distances in the cities.

Not only the sources of food changed after joining ASAT, but also the importance of criteria according to which the respondents usually chose what food to buy. Nine criteria were rated from 1 to 5 (with 5 being highest). Freshness, health and the ingredients remained almost unchanged in their importance as criteria, while seasonality, the origin and the organic nature of production received a much higher rating in the "after ASAT" situation. Results further show that ASAT consumers became less interested in the price or in the brand after joining the partnership (Table 21). Other criteria relevant to their food purchases that were mentioned beside the nine criteria listed, were "the producer's social responsibility", "the intrinsic quality", and "taste".

**Table 21: What were/are your criteria for choosing which food to buy? (average of score from 1 to 5)**

	<u>Before</u> becoming an ASAT member	<u>After</u> becoming an ASAT member
Freshness	4.49	4.57
Positive health effects expected	4.29	4.53
The ingredients on the package	4.16	4.40
Food in season	3.81	4.39
The origin of food	3.71	4.28
Organically produced	3.63	4.11
The best price	3.24	2.97
The brand of the producer	2.76	2.83
Less packaging	2.65	2.92

Source: Own data.

Interesting results were obtained from looking at the most important criteria identified for food purchase before and after joining ASAT. Although health was the most important criterion already in the before situation, the share of increased significantly from 27.5 % to 43.2 %. Another interesting criterion for our analysis was price, because in the "pre-ASAT" situation, it had been selected as most important by 10 % of the respondents, while in the "post-ASAT" situation, it no longer appeared. Thus, none of the consumers considered price the most important criterion for food purchase after becoming ASAT member. The percentage of people concerned most with seasonality more than doubled, and a small group (2.7 %) of consumers became concerned most with the origin of food after entering ASAT. None of the respondents singled out the brand of the producer, nor the use of less packaging as their most important criterion for food purchase (Table 22).

**Table 22: What is your most important criterion for food purchase? (% respondents)**

	Before becoming and ASAT member	After becoming and ASAT member
Freshness	22.5	16.2
Positive health effects expected	27.5	43.2
The ingredients on the package	25	18.9
Food in season	2.5	5.4
The origin of food	–	2.7
Organically produced	12.5	13.5
The best price	10	–
The brand of the producer	–	–
Less packaging	–	–

Source: Own questionnaire analysis, 2011.

#### 6.4 A charter of general ASAT principles

It was the intent of CRIES to emulate the French model of AMAP. Therefore it is no surprise that the ASAT partnership aims at closely following the general principles of CSA. The convenience of consumers is not an aim, but their genuine solidarity is sought. For example, even if there were requests from the consumers to deliver their shares directly to their doors, the farmers are, according to information obtained from the farmers, not allowed to provide this extra service because the CSA model CRIES wants to promote is based on the effort and cooperation of both parties.

CRIES intended from the beginning that the partnerships should be guided by a set of principles gathered in the ASAT Charter<sup>35</sup> which is attached to each contract between consumer and producer. The ASAT Charter details the tasks of the producers and consumers. It implicitly mirrors the values of the CSA partnership. In the words of an interviewed CRIES officer *"The ASAT Charter defines this type of local solidarity partnerships, establishes the principles that represent the foundation of ASAT and the framework which describes the social change which CSAs initiatives wish to generate. The Charter does not function as an internal functioning regulation, it does not state strict obligations for the two parties, but rather the principles of ASAT identity."*

According to the ASAT charter the farmers should

- Maintain biodiversity and a healthy environment
- Guarantee nourishing and healthy products
- Take care of transparency regarding costs and price
- Involve no intermediaries, i.e. all products in the basket are from the farmer's own production
- Constantly inform the consumers about the state of crop growing and the problems the farm is facing

Consumers are requested to pick up the baskets with their weekly food, volunteer for organizing the distribution of products and promote ASAT to other people.

However, since the contracts are of an informal character, we observed that the ASAT Charter seems to have a rather low practical value. A former ASAT core-group member stated that he was not even familiar with it: *"I think it is enough said if I confess that I have no idea what the ASAT Charter is. Are you sure they had it also last year?"*. Only half of the consumers believe that the ASAT Charter is important for them. Consumers' involvement is usually limited to the picking-up of shares; volunteer work or even farm visits are hardly existent. All three farmers disagreed about having difficulties with respecting the guidelines of the ASAT Charter in running their farms.

The Charter relies on goodwill and trust and does not have mechanisms of enforcement (see also Section 6.6). Thus the farmers do not insist on having the consumers to be more involved. At their end, consumers do not make the effort to check if their ASAT farmer is respecting the principles of the Charter in his or her vegetable cultivation or in setting the prices.

#### 6.5 How does the partnership function in practice? Three farmers with two different payment systems

Prospective consumers have to contact the NGO CRIES about their interest to take part in ASAT and sign the contracts in winter on a first-come-first-serve basis. There is a maximum number of consumers proposed by each farmer taking into account the land and labour available. The next step is the financial contribution the consumers make to the partnership in form of

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<sup>35</sup> See ASAT website, <http://asat.ecosapiens.ro>, accessed in July 2011.

an up-front payment. The quantum of the annual sum for the entire season for a consumer-partner is calculated to support the costs that the farmer will have at the onset of the season, as well as ASAT-related costs like transport and packaging. Also a fair salary for the farmer and other members of his or her family who assist him or her are included<sup>36</sup>, as well as health insurance contributions to the state budget (to ensure that the farmer benefits from free national health care). Table 23 presents the calculation of cost for Farmer 2.

For the example above, Farmer 2 planned (and achieved) to have 20 subscribing member families in 2011, which would receive a total of 39 shares throughout the entire season. The products are not given a price individually, and the content of a share is highly variable between spring, summer and autumn. To obtain the price of a share, the total cost of production and the ASAT-related costs were divided by 780 and the result was 37.3 RON or 8.70 € per weekly share. Per year, an ASAT consumer belonging to this particular partnership was spending 1,454.7 RON (339 €), out of which the first contribution (the largest) was 400 RON (93 €) to support the farmer in the first and most important expenses of the season. This money constitutes payment for the first shares, thus in the first weeks, the consumers do not pay when they pick up their shares. This might also generate a feeling of non-material appreciation for the products and a different attitude than in marketplace or in the supermarket. The content of a share is communicated to the consumers only on the day of the pick-up or the evening before, because the farmer decides ad hoc which of the vegetables are ready to be harvested.

**Table 23: Costs calculated for Farmer 2**

	Type of Cost	Explanations	Sum(RON <sup>37</sup> )
		Seeds (vegetable and fruit)	1,000
		Peat 5 sacks	250
		Foil (50 kg)	400
1.	Seeds and getting the field ready	Field ploughing	200
		Ploughing in the garden	200
		Water (March-October) 8 x 10 m <sup>3</sup>	240
		Water dripping single-use hoses (500m x 0,20)	100
		Manure	200
2.	Transport to Timisoara	39 distributions x 50 RON/transport	1,950
3.	Human Resources costs	1,000 RON (233 €)/month x 2 people x 12 months	24,000
		CAS <sup>38</sup> contribution and health insurance (200x 12)	480
4.	Packaging	Bags for packing the produce	100
TOTAL			29,120 (6,788 €)

Source: ASAT website [www.asat.ecosapiens.ro](http://www.asat.ecosapiens.ro) accessed December 2011.

<sup>36</sup> Negotiated with the farmer; usually close to the average national income.

<sup>37</sup> The table was made public on the ASAT website in December 2010. The rate of exchange at the time was 1 Euro=4.29 RON.

<sup>38</sup> CAS: Casa Asigurari Sanatate, The National Health Insurance institution.



There is a preliminary list of products and quantities available to the consumers. It is accompanied by a warning about the fact that these products will not be part of the share at the same time, but they will be included gradually, as they ripen (respecting the natural maturation process). Also, they will be replaced according to season. According to observations and interviews, the shares in spring contain less produce and those in summer are more generous.

Farmer 1 started with a different payment system. From the very beginning his partnership was based on fixed prices for each product established at the onset of the season. Thus the cost of shares in his partnership varies weekly depending on the products and quantities available and is not fixed like in the case of Farmer 2 and Farmer 3. In his partnership, like in the other two, consumers pay an initial instalment and then lump sums out of which the cost of the weekly share is subtracted.

At least theoretically, the consumers are responsible to pick up their shares and have to pay even if they fail to do so. In the case in which a consumer wants to retreat from the partnership, he or she must find a replacement who will continue to support the farmer and benefit from the vegetable subscription.

## 6.6 Trust and solidarity in the CSA partnership

The issue of trust is crucial in a solidarity economy partnership where much relies on goodwill and there are no strong mechanisms of enforcement. The consumers start with investing in an idea that is new to them. They trust the farmers to fulfil their obligations. Interestingly they hardly make use of the possibility to thoroughly check if the farmers are keeping their end of the promise. A former core-group member testified that *"it is rather difficult to check on the producer. One has to rely more on trust. Of course we could always make an unexpected visit, but I don't think it ever happened."* 89.7 % of the respondents trust the farmers they are partners with and 69.4 % trust CRIES. It is interesting to observe that 5.2 % of the respondents claim not to trust the farmer, but a much higher percentage (16.7 %) claim not to trust CRIES. This may be explained by the fact that the partners of Farmer 1 are not familiar with the NGO because the CSA is now being managed only by the farmer. There is a relatively high percentage (57.9 %) of respondents who would trust the farmer even if no organization would be involved in the partnership, but 60 % admit that their level of trust in the partnership is higher because a known organization is involved.

In their turn the farmers must trust that after their initial financial contribution, the consumers will continue picking up the vegetables and pay the agreed sum per share. During the vegetables deliveries we observed that not all consumers arrived in time, and the farmers had to call them to find out the reasons for the absence. However, cases in which people fail to arrive to pick-up their vegetables without informing the farmer on the phone or without providing a good explanation are very rare.

This lack of reliability with some consumers is apparently feared by Farmer 1 who instituted a guarantee payment signaling his lower level of trust in the consumers' ability to keep their part of the agreement throughout the season. The guarantee payment is a fixed sum charged from all members one month before the end of the season, to avoid the tendency of the consumers to be less reliable in picking up of the last shares. This was instituted as a consequence of a few disappointing cases of consumer drop-out towards the end of the season. Only three announced absences that are thoroughly registered are allowed in this CSA. For absentees, their share is divided among the rest of the consumers for Farmer 1. In the case of Farmer 2 and Farmer 3 there is an agreement according to which the shares not picked up are donated to a local care centre for the elderly. Nevertheless, the consumers still have to pay for them.

Solidarity seems to be an important element in the relationship, since 15.4 % of the respondent claimed that their most important reason for joining ASAT was to support local farmers. One

consumer explicitly commented about getting involved *"first of all out of social solidarity. By contributing with my money I wanted the farmer to have a decent salary and social security; we share the risk in the case of calamity."* However, consumers are still more focused on the quality and health effects of the products. A former core-group member stated that *"The social aspect held a lower level of importance for the majority."* However, there were instances in which consumers displayed a high level of solidarity with their farmer. For example, Farmer 3 managed to buy a used car with funds from his consumers to avoid to be forced to rent transportation for his deliveries. A CRIES staff member accounted that *"he won the appreciation of a part of his consumers who wanted to organize a fundraiser to support him. This idea was initiated by 2-3 consumers and continued with a public event."* Although they refrain from volunteering for the partnership, consumers embrace CSA as a solidarity economy practice to a considerable degree, confirming thus Hypothesis 2.

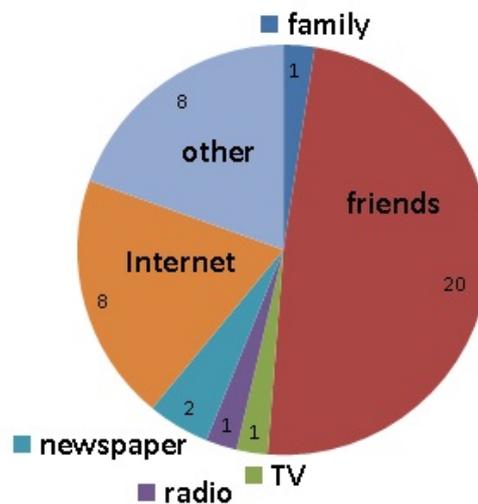
For the farmers solidarity is an important element as they need to rely on the consumers to regularly pick up and pay for their shares. Farmer 3 stated that *"the people who are always late, or forget about picking up their produce, maybe we shouldn't renew the partnership with them. If the share always remains there for a few days, that means they have no respect for my work."*

## 6.7 Communication and networking

Beside trust and solidarity, communication could be seen as one key success factor for CSA partnerships. It starts with promoting the idea and winning partners, and it continues with the necessary and frequent communication between the farmer and the consumers and the networking within the CSA and with external players.

The most important marketing tool for ASAT was word of mouth and personal recommendation: half of the respondents declared to have first heard about the CSA partnership from friends (Figure 12). Another important channel is the internet, which constitutes also an important communication tool inside the partnerships. Some heard it from the radio, TV or read it in newspapers, but there are numerous other sources such as for example: *"from the farmer", "from a poster in the bus", "from my dentist", "from the organization I am a member of", "from a representative of AMAP (Denise Vuillon) at a lecture about welfare indices which took place in Timisoara", "from CRIES members", "from work colleagues"*.

Figure 12: How did you find out about ASAT? (number of consumers)



The communication within the partnership is rated as satisfactory. When asked to rate from 1 to 5 their level of satisfaction with the communication with the farmer, ASAT consumers' aggregated answers reached a higher average score (4.37) than that for the communication with CRIES (4.03). Communication with CRIES is mainly about the ASAT contract and is limited to a few times per year. Communication about the contract tends to be face-to-face, but information exchange about picking up the ASAT shares is done mostly by email. The communication with the farmer has as main subjects the quantity and quality of vegetables in the basket; there is weekly communication about picking up the shares. A few times per year the consumers get in touch with the farmer about the contract and events at the farm, but almost never about volunteering. Communication with the farmer is usually done face-to-face or over the phone. The moment when the two parties meet and an open exchange is created is usually the picking-up of shares (Figure 13). For Farmer 2 and Farmer 3, consumers have two hours after 5 p.m. on a certain weekday, while Farmer 1 who has a bigger number of consumers in his ASAT, delivers the vegetables twice a week during an interval of three hours. Each of the three farmers know their consumer-partners by name. During the pick-up time they share details about the farm-related problems they were facing. The farmers contact the consumers over the phone if they do not show up during the established time for delivery of shares. Farmer 2 described this communication as follows: *"We speak on the phone each time it's necessary, when they leave for vacation, or when they cannot come pick-up the share. I also call them if they do not arrive within the 2 h timeframe for delivery."*

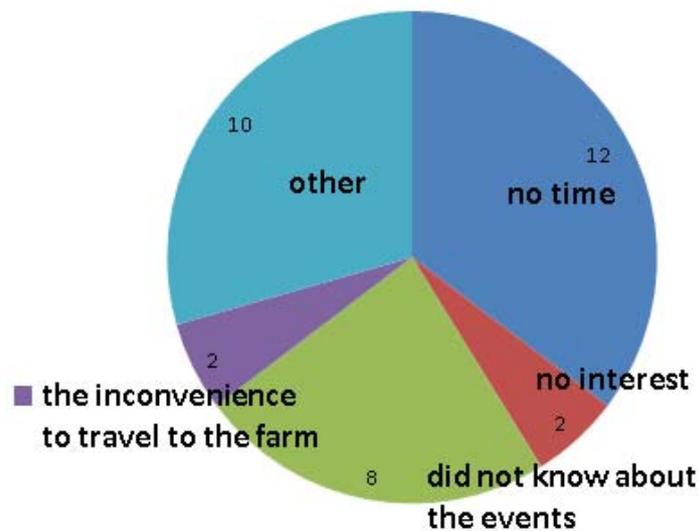
**Figure 13: Consumers picking up their vegetables from the CRIES office**



In theory, networking is an important ingredient of CSA (see Section 3). However, not even in the case of Farmer 1, where some consumers have been in the partnership for longer (maximum 3 years), there is no sense of network creation among the consumers. More than three quarters, 77.1 %, disagree that they communicate with other ASAT members and 82.9 % answered negatively when asked if they made friends with other ASAT members.

The partnership offers the explicit possibility for consumers to visit the farm, but unless the farmer organizes a special event, very few will make the trip to see how their vegetables are cultivated. 41.2 % of respondents made at least one visit to the farm since they became ASAT members; only one respondent answered positively about volunteering work for his or her ASAT farmer in the form of picking cherries during the 2011 season. Four of the respondents' families took part in celebrations at the farm, the main reasons for not visiting which the rest of the respondents offered being a lack of time, a lack of information or a lack of such events (under "other") (Figure 14). However, 46.9 % of respondents declared that they like the idea of being able and welcome to visit the farm, and 35.7 % like the possibility to take part in celebrations at the farm.

**Figure 14: Reasons for not visiting the ASAT farm since you are a member (number of respondents)**



## 6.8 Discussing benefits and cost of CSA for the partners

If CSA is a viable innovation for small farmers in Romania depends first and foremost on the cost and benefits of the partners. These cost and benefits may be material or tangible, but could also be intangible. Benefits and cost arise at the personal, social, economic and environmental level (Table 1). While we assume that for the farmers an increase in net incomes is the most important criterion to assess their benefits, consumers may have certain values and ideas in their focus and mainly judge the relationship according to their personal perception of receiving benefits in this regard. In the following we will report on the measured and perceived costs and benefits for the two parties separately. For this purpose we will use the list based on the theoretical costs and benefits for CSA members in Chapter 3. We will quantify each cost and benefit as null (0), medium (-/+ ) or large (--/++). In a final assessment we will indicate if the Romanian CSAs analysed represent win-win partnerships as stipulated by Hypothesis 3.

### 6.8.1 Farmers' benefits and costs

The benefits for farmers are mainly economic ones. Farmers strive for a stable and secure income that enables them to sustain the livelihoods of their families. The use of family labour might play a role, but also intangible benefits such as a rise in reputation, a sustainable way of agriculture, networking or access to new knowledge.

#### Access to a stable market and an increase in income (++)

The most important reason to become ASAT producers is access to a stable market. Small producers in Romania face considerable barriers to markets. Farmer 2 explains that "going to

*the market with the type of vegetables I produce (they looked the same before) I did not have the same success which the merchants with perfect-looking vegetables had. Obviously. And then I realized that there are also people who suffer from illnesses like I do and need healthier products."*

The CSA also helps to avoid that the farm income is subject to price fluctuations. It is higher, because there are no middlemen involved and a fair price is part of the CSA contract. When asked to compare ASAT with other production and marketing alternatives, Farmer 1 testifies that *"this year ASAT brought me higher earnings. It is an issue of perspective and more certainty."* However he also mentioned the many investments he had to make since ASAT and the fact that in the first years he could not meet the expenses with the prices he had set. For Farmer 2 the CSA partnership was the only option to sell her farm produce: *"If there was no CSA, I would have reduced the production to subsistence level and would have looked for an off-farm occupation."* Farmer 3 considered ASAT to be the most convenient opportunity which *"for the moment, improved my income, although I cannot estimate yet how much."* All three ASAT farmers appeared to be satisfied with the increase in incomes (even though they could not describe it in absolute numbers) and are confident to continue as ASAT farmers. When asked to judge if the farm income can cover the household expenditures all farmers agreed that they have difficulties to cover for the needs of their households, but they all agree or totally agree with being more satisfied with their situation since they are ASAT farmers.

Moreover, the CSA partnership opens up additional marketing opportunities. Farmers started to sell additional products that are not part of the ASAT partnership (which includes only the shares of fruit and vegetables). Interested consumers can buy these products – for example milk, eggs, poultry or traditionally processed foodstuffs and honey – directly and for a fixed price unrelated to the share. Farmer 1, who produces more than his consumers buy with their shares, can sell vegetables in larger quantities if desired by the consumers. Some consumers request preserved vegetables for the winter time. The income the farmers make with such processed products is additional to the income brought by the ASAT partnership.

### **Lowering the risk of production (+)**

In the case of a bad harvest the ASAT consumers share this risk. This issue was ranked as very important by Farmer 2 and Farmer 3, but as not so important by Farmer 1. However, also Farmer 1 admits that *"the market is full of risks, while here [in the partnership] I know from November on how to plan my growing season."*

### **Increase of production (+)**

Although an intended increase of production is not among the main reasons to become a CSA farmer, the ASAT partnership seems to have at least a slightly positive effect on the amount of production. One of the farmers stated that he is using 10 % more land since starting the partnership. Another has plans of renting in more land to increase production and have a larger number of members in the future.

### **Beneficial effects of organic agriculture on the farm's eco system (++)**

All three ASAT farmers were very concerned about soil contamination through excessive use of synthetic chemicals practiced by conventional agriculture. Expected positive effects of organic agriculture are the second most important reason for becoming ASAT farmers. Still, only Farmer 1 is under conversion to formally certified organic agriculture; the other two farmers have not made steps in this direction. They call the type of non-synthetic inputs agriculture they practice "traditional and natural" agriculture. They apply among others the following methods: intercropping (sometimes with aromatic plants), mulching film, growing warm bed seedlings, manure as fertilizer, and manual weeding.

### **No need for formal organic certification (++)**

The certification of the organic products is not necessary for ASAT farmers. This saves a significant amount of money (and bureaucratic efforts) while at the same time the farmers still receive a price that includes a premium for organic production. Farmer 3 would not get organically certified *"because it costs a lot and it just consumes your money. I think that if the market for organic products develops, maybe it will make sense and it will be worth the extra money, but for now, no."* Farmer 2 states *"I have made no changes from the way I cultivated before. It is not eco, it is natural. I do not intervene with synthetic substances. My consumers know that and do not ask for a certificate."*

As mentioned above, Farmer 1 invested in obtaining certification as an ecological producer. In his case this makes economic sense because he produces for more than just ASAT and is hopeful about obtaining the price premium for certified products also outside the ASAT partnership.

### **Reputation and trust (++)**

The expectation of being higher esteemed by the people in their communities was the third most important reason to take on the ASAT system. And indeed, farmers are convinced that their CSA partnership has increased their reputation in the community. When the first partnership was initiated especially Farmer 1 has received much media attention: he was interviewed and appeared in many agricultural magazines and on local television. Farmer 2 and Farmer 3 are also more and more recognized by their community as ASAT farmers. Farmer 3 is in fact the only vegetable producer in his village and thus very well known.

### **Less efforts for marketing which is mainly done by CRIES (+)**

Another advantage of the CSA partnership is the fact that the farmers do not need to invest in attracting the ASAT consumers. CRIES is the active promoter of the concept. The farmers' general marketing efforts consist in being available for visits and interviews from media and of course, in participating in the yearly evaluation meetings or in special presentations organized by CRIES. Otherwise they are only involved in the direct interaction with their subscribers for whom they prepare the weekly baskets and organise the transaction of products and payments.

The cooperation with CRIES is seen as smooth. They all agree to a large extent that they have a good relationship with CRIES. Farmer 1 and Farmer 2 use internet communication with the consumers for their marketing activities and rate this as very practical. Farmer 3 is not prepared to use the internet and will therefore have to rely on support of CRIES for e-mail communication also in the future.

### **Increased farming skills (+)**

Although the improvement of their farming skills was not a high priority for the ASAT farmer, all three totally agree that their professional agricultural knowledge expanded. For example, Farmer 1 took part in *Urgenci* visits in France and Japan, witnessed different agricultural systems and brought back seeds and increased knowledge. During data collection, we observed that Farmer 3 was thoroughly consulting a book about aromatic plants which one of the consumers had brought. CRIES supported knowledge exchange through a meeting with all three farmers. However, this networking event was less fruitful than hoped. One farmer complained about a colleague *"I would have liked to get more information, but he did not share professional secrets. Even when I asked directly, I got no satisfying answers..."* There was no positive effect of networking as the farmers did not get in contact out of their own initiative.

### **Increased business skills (0)**

Better business skills could be developed when the ASAT farmers improve their book keeping and provide data for the calculation of production cost. However, there was no significant indication that the business skills improved through the partnership. Farmer 1 admitted *"I cannot keep my own books."* And Farmer 2 said there is nothing more to learn from CRIES in this regard.

The benefits that have certainly materialised for the farmers have to be seen in relation to the cost of participating in the CSA partnership. We discuss the initial investment cost, but also the higher labour input of traditional agriculture compared to conventional methods and cost related to the marketing and direct contact with the consumers. There might also be relevant intangible cost like a change in the personal life-style.

#### **Investment costs to start the partnership (-)**

All the farmers reported to have recently made investments on their farms. Yet, not all were directly related to the ASAT partnership. In particular ASAT related investments were needed to prepare for the organic-type of production: *"I put over 200 trucks of manure on my fields, before I did not do that. I had to install new water sources, buy machinery, and install drip irrigation."* (Farmer 2). None of the investments were made with the help of subsidies, but solely from private sources. Overall, the investment costs were not assessed as a big hurdle for the farmers.

#### **Time to deal with consumers and marketing activities (0)**

The time that is needed to deal with the consumers is part of the particular CSA marketing activities. If this is perceived as a cost or even as a pleasure depends on the farmer's personality. All three ASAT farmers declared that it is a great pleasure for them to receive visits from ASAT consumers at the farm, and they all agree that it is very little effort needed in receiving visits from the consumers at the farm. Usually the preparation of baskets and the direct contact to the consumers is organised on a regular base in a certain time span per week. It is necessary to maintain lists with consumers and delivery schedules, which takes for Farmer 3 *"about half an hour per week"* and for Farmer 1 *"about 2-3 hours."* Farmer 1 has two deliveries of baskets per week and allows for a larger time span in which the consumers can come to pick up their shares. Overall, the time needed for marketing and consumer contact seems not to be perceived as significantly larger compared to other marketing alternatives.

#### **Intensification of work (--)**

Another typical change is the intensification of farm work. The methods of production employed for complying with the ASAT Charter are in fact the methods used in organic agriculture; thus compared to conventional agriculture they are much more labour-intensive. Regarding the ASAT-specific work, the farmers disagree that the weekly transport of vegetables to town is difficult but when it comes to agricultural production the workload seems to have increased: *"The work became much more intensive, for example, we hoe now 3-4 times a year, and we used to do it just twice per year before."* and *"the workload is maybe 10 times bigger."* (Farmer 1). Despite this, all three farmers disagree with the fact that it is difficult for them to follow the ASAT Charter guidelines. When comparing the necessary efforts with certified organic agriculture, Farmer 2 and 3 believe that the ASAT regulations are not less strict than the standards for organic agriculture, but Farmer 1, who is in the process of certification, believes that it is easier to comply with ASAT standards than organic agriculture standards. They all agree that the amount of work needed for ASAT is more than what is needed to comply with the "good agro-environmental standards".

#### *6.8.2 Consumers' benefits and costs*

The benefits for the consumers may be economic ones, such as a price that is lower than that for certified organic products, but more than that the CSA serves certain values that the consumers follow. Among them are a healthy diet, solidarity with the rural people, environmental issues, etc.

#### **Healthy and fresh produce (++)**

The concern for health is on the top of the list of consumers for joining ASAT. One third of the respondents point out that their first reason of joining ASAT was to get healthy products, while another third desire for organic products. One of the consumers referred to his children's

health when asked to comment about the partnership: *"Especially because there are two young children in my family. I really want to make sure that the carrots I use for my children's juice is not full of chemicals."*

The quality of products was rated high with an average of 4.31 on a scale from 1 to 5. Most of the consumers are very happy with the quality of the produce from the ASAT shares. One consumer commented: *"Now that I ate these products and remembered the taste of my childhood, my body refuses chemically nurtured food ... we really need to continue with the partnership."* Others were less happy and expressed specific complaints about the quality of the vegetables, for example that *"sometimes the vegetables are not in the best shape; maybe because they are bio, they go bad quicker and maggots appear (for example in cabbages)."* or that *"a wide variety of products (onions, potatoes, peppers, aubergines, carrots, etc...) are not left to mature. Thus many become useless or difficult to use (for example, potatoes the size of a cherry). I would not like to compare the products to artificially looking products from the supermarket, but I wish for just healthy agricultural techniques which ensure that the product reaches maturity naturally."* However, it seems that such critical opinions are not the rule, because 84.7 % of the respondents declare themselves to be satisfied and totally satisfied with the quality of the products. Moreover, 74.4 % of them believe that their family's health improved since they are ASAT members. The large majority of respondents (89.8 %) is also satisfied or very satisfied with the quantity of produce they receive in the weekly shares. In summary, the quality of products as well as the health aspect are very important for the CSA consumers. The benefits that are received are therefore to be rated as very high.

#### **Having access to organic products at a low price. (+)**

If consumers are interested in buying organic products, the lower price of the ASAT food baskets compared to certified organic products might be appealing. However, since organic retailers are hardly available, the ASAT price is in fact higher than the conventional products that would be the alternative choice. Indeed, when asked if they perceive the ASAT membership as an opportunity to save money, the consumers deny this (with an average rating of 2.8 on a scale from 1 to 5) or 54 % of the consumers who give a negative answer. Therefore it might be argued that the benefit for the consumer currently arises from the sheer access to organic vegetables and less from the price. Nonetheless, we present some interesting facts derived of a price comparison with other local food sources.

We start with comparing the prices of single products. For this we look at the price records provided by the Ministry of Agriculture and Rural Development. The prices negotiated at the beginning of 2011 between Farmer 1 and his consumers are at least double the market prices for the same products (Table 24).<sup>39</sup> Even if some of his products are priced double than on the market for conventional vegetables, the price of his shares are only maximum 53 % more expensive than what they would be based on market price. This is shown in Table 25.

**Table 24: Retail prices for conventionally produced products in town markets in Timis county in 2011 in comparison with the prices of ASAT Farmer 1**

	1 KG	Potatoes	Cabbages	Onions	Peppers	Tomatoes	Cucumbers
Price week 15.08- 14.09	Town market (RON) Farmer 1 (RON)	0.8-1.5	0.5-0.8	1.5-2	1-3	1-2	1-1.5
		3	2.5	3.5	4	5	3.5

Source: MADR Price Monitor and own observations.

<sup>39</sup> The market prices were low in 2011 because of the very good harvest year and the lack of storage capacity of farmers (RAICU, 2011).



In Table 25 we compare the difference in price between the shares and a basket filled with the same quantities of vegetables from the town market, the supermarket and the chain retailer.<sup>40</sup> As described above, the prices for the shares of Farmer 2 and Farmer 3 are calculated based on the costs of production. Our results confirm that the prices for their shares are not disconnected from the market prices. Still, the price difference with conventional products fluctuates considerably depending on the content of the share and the prices on the market (Table 24). Farmer 3 has more members and his price per share is lower. This leads to a smaller price difference with the market prices of 15 % to 38 %. Farmer 2 has the highest price differences (from 37 % to 64 %) and the largest fluctuations. Farmer 1 has a smaller range in price differences (from 38 % to 53 %), because here the prices per product are fixed. He offers small and large shares, and the smaller share appears to be regularly the more expensive one.

**Table 25: Price difference of ASAT shares in comparison with the same products from other marketing channels (%)**

Farmer	Price difference to town market prices (%)				Price difference to supermarket prices (%)				Price difference to chain retailer prices (%)			
	Week 1		Week 2		Week 1		Week 2		Week 1		Week 2	
Farmer 3	38 %		26 %		29 %		15 %		34 %		17 %	
Farmer 2	37 %		64 %		38 %		55 %		39 %		55 %	
Farmer 1 Tuesday**	sm	big	sm	big	sm	big	sm	big	sm	big	sm	big
	44 %	40 %	47%	49%	47%	40%	43%	42%	46%	38%	44%	43%
Farmer 1 Friday	sm	big	sm	big	sm	big	sm	big	sm	big	sm	big
	52 %	42 %	49%	44%	52%	41%	43%	40%	53%	41%	43%	39%

Note: The price of a share of Farmer 1 varies according to the size of the share (small, big) and to the quantity contained (See Annexes for calculations). The price of one share of Farmer 2 is 37.3 RON; and the price of the share of Farmer 3 is 26 RON.

Clearly, the price is not the first reason for consumers to join a CSA. A former core-group member explains that *"The main reason [to join the partnership] for most consumers was that the products were healthier than the ones from the market, and the price was comparable with the price on the market, thus less than in the "eco, bio" shops."* *"At the present moment, the quality/price ratio represents a great asset of the partnerships because the high diversity of products and their ecological type of production are not reflected in the price. It is normal that these products are more expensive than the products of conventional agriculture which are now dominating the food market in Romania and worldwide."* However, some consumers feel that the prices are too high for the quantity and quality received: *"The idea of the partnership is a good one, but (...) for us the contract was not advantageous, we paid too much for what we received."* Yet, overall, price is a criterion for food purchase which lost importance after the respondents joined ASAT. If 10 % of them mentioned that it used to be the most important criterion for them before they joined ASAT, not a single consumer mentioned it as the first criterion for choosing which food to buy after becoming members.

<sup>40</sup> A price comparison with produce on the local market encounters an important limitation in the fact that the quality of the vegetables on the market should be of a similar quality as the ASAT vegetables (i.e. produced in a traditional manner without synthetic inputs). This can hardly be assessed. A price comparison with certified organic products was impossible as there was not offer of such fresh vegetable products in Timisoara.

Consumers also benefit from the fact that the price is fixed throughout the year and price risk is lowered. However, also this does not seem to play an important role for consumers.

### **Smaller environmental footprint because of the environmental advantages of organic agriculture (0)**

Consumers rated environment as a not very important criterion in their food purchase before entering the partnership (3.63 out of a maximum of 5). This changed after they became ASAT members when the rating grew to 4.11. Also when asked about the reasons to join ASAT, environmental concerns scored among the least important and there is no respondent who chose environmental concerns as the most important reason to join the partnership. Our observations led us to conclude that this benefit is felt by very few of the consumers, who are more sensitive to this issue, but it is rather irrelevant at aggregate level.

### **Networking with other CSA members (0)**

The benefit of belonging to a community as an ASAT member was selected as the main reason for joining the partnership by only 2.6 % of the respondents. As already presented, ASAT consumers have not socialized much with one another. Thus the formation of stronger networks around the partnerships, which should according to the theory be an important element, is still far from sight. Therefore the benefit from networking is only a theoretical one at this stage.

### **Change in consumer behaviour towards a more healthy diet (+)**

ASAT members self-reported about the changes in their consumer behaviour, as shown in the Tables 21 and 22. The most important ones to notice were the increased appreciation for organic and seasonal food and an increased concern about the origin of food. When asked whether they have improved their knowledge about nutrition, only 11.5 % of respondents agreed. The benefits of a healthy diet cannot be easily judged. Still, a positive effect can be expected.

### **Contribute to regional development and solidarity with the producer (++)**

The wish to make a positive impact on the regional development by supporting a local farmer seems to have bigger importance for the consumers than we initially expected. 77.5 % of the respondents think that they are making a difference by supporting a local small farmer through their consumption. The desire to support small producers was the second most important reason for respondents to join the ASAT partnership. Some consumers commented that for them the solidarity with the producer or the sustainable development implications were important. The wish to support the local producer was rated much higher than for example saving money on groceries or environmental concerns. These findings contribute to the confirmation of Hypothesis 2 which claims that the consumers' solidarity is playing a very important role in the existence of these CSA partnerships.

### **Establishing a direct link to the farmer, the farm, and rural areas (+)**

Half of the respondents agree that their relation to the producer is a personal one. This is important if solidarity and community are important aims, but also if the consumers have a strong interest in the origin of their food. Knowing the origin of their food was the most important reason for 10.3 % to become ASAT members. The issue of trust plays an important role as some of the benefits that consumers get out of the CSA partnership are trust based (e.g. the health value of the food which is not controlled). Despite this, as shown before, consumers tend to not get closely involved with the farm, but it seems enough for them to know that they are welcome to visit the farm. Overall, the linkage with the farm and the rural area seem to provide only little direct benefits, but are important to keep the system working through the necessary trust-based relationship.

The consumers who get involved in CSA face considerable costs and risks. First of all they are not fully sure about what they receive for their money, neither in terms of diversity, quantity nor quality. It can be expected that the content of the shares does not always reflect the needs of the consumers and that it contains non-standard products. Further, consumers need to make an advance payment, share the risks of production and invest time in volunteer work and the picking up of baskets.

### **Limited choice of produce (0)**

A lack of variety of products is not an issue for most consumers: 87.2 % declare themselves satisfied and very satisfied with the variety of products in their weekly share. Farmers reported to receive only occasional and minor complaints: *"A single person commented to me that there are too many zucchinis."* Farmer 1 stated that he offers between 10 and 15 products in a share, the least he ever had being 8 products. In total, he cultivates 32 types of vegetables and plans his production in order to offer a bigger variety. Farmer 2 offers on average between 10 and 12 products in a share, more in the spring because then there are more green leafy vegetables. Farmer 3 told that the share has *"fewer [vegetables] in the spring, about 5-6 and then they get to 9-12, in the summer and autumn."* To diversify the weekly share he added aromatic plants, cauliflower, and more types of pepper. He was also planning to offer specialty products and maybe products minimally processed by his wife in the future. Some of the consumers might like a larger variety, but it does not seem to be an important cost overall: *"The variety of products is not so high, but I understand this is normal; we still buy vegetables from the supermarket, the ones which are not in the share, for example mushrooms or broccoli."* or *"I think the fruit offer is not so varied, also there is little variety in fruit and vegetables in the colder period which could be solved by bringing in a producer with greenhouses or similar warmer spaces."*

### **Acceptance of non-standard products (0)**

We did not encounter specific comments from the consumers about wanting the products to be of a better quality, but farmers reported about single complaints such as about the size of spring carrots and potatoes. However, the acceptance of non-standard products is reflected by the satisfaction with the quality of the products, which we showed above to be quite high.

### **Necessity to pay a larger sum in advance (0)**

The initial financial contribution is 400 RON (93 Euro) for Farmer 2 and Farmer 3, while Farmer 1 takes an upfront payment of only 100 RON (23 Euro) and a warranty payment of another 100 RON (23 Euro) which he keeps if the consumer decides to pull back from the partnership during the season. This upfront payment is intrinsic to a CSA partnership and does not constitute a large cost for the consumers. This statement is demonstrated by the low relevance of price on their food purchase habits and the lack of comments related to the obligation to pay a larger sum at the beginning of the CSA partnership.

### **Time invested (0)**

We inquired whether the time needed from the consumers to participate in meetings, to pick up baskets, and to volunteer is considered a big cost of the partnership. The main time effort arises from picking up the baskets, because there is only one meeting of the ASAT members at the end of the season to discuss with the farmer and plan ahead. No consumer is investing his or her time to volunteer on the farm or with helping with the vegetable delivery. The majority of consumers (59.4 %) do not find it inconvenient to pick up their vegetable share. However, 79.5 % of the respondents are not happy about the obligation to pick up the shares on a certain day.

### **Necessity to transport the products (-)**

In comparison with other market channels, the ASAT distribution points were on average the furthest away from the consumers' homes. Thus the effort to transport the vegetable share is larger than simply shopping in the town market or in the supermarket.

In summary we could show that for both sides, the farmers and the consumers, perceived and actual benefits seem to be larger than the costs. While farmers are mostly interested in accessing a secure market and improving their economic situation, consumers benefit mainly from the opportunity to buy fresh, organically produced and healthy food from a known source at a reasonable price. Solidarity as a value plays an important role for the consumers, who want to support the local rural economy and establish a personal relationship to the farmer who produces their food.



## 7 CONCLUSIONS AND POLICY RECOMMENDATIONS

Community Supported Agriculture (CSA) may be seen as a viable rural innovation in the sense that it offers employment to small farms with difficult access to markets while at the same time offers specific products in a niche market that is not served otherwise. In the Romanian context, it is the situation of a persistent market failure that opened room for CSA. There are two essential push factors that pave the way for successful CSA initiatives.

First, the very low income prospects with almost no social safety nets of small farmers, who represent the large majority of Romanian agricultural producers, keeps many at a subsistence level and thus they are widely excluded from the markets. Large retailers like supermarket chains rely solely on large producers, thus small farmers are constantly losing their market share.

Second, we notice incapacity of the market to provide an adequate offer of local organically produced vegetables and fruits. The market for organic products and especially fresh organic products is severely underdeveloped in Romania. The limited offer of organic products is mostly imported and concentrated in large retailers. *"A single Romanian ecological producer cannot meet the demands of supermarket chains, which are not inclined to buy from local producers because they want to gain more and pay the producer as least as possible."* (Viorel Solomie, responsible for ecological agriculture at the Timis County Agriculture Directorate)

Organic agriculture in Romania becomes a conundrum of demand and supply: there is not enough demand to encourage local supply and the Romanian production of organic agricultural products is directly exported to foreign consumers who are willing to pay many times its costs of production. The lack of a food-processing sector specialized in organic agriculture renders the situation even more paradoxical: Romania exports increasingly more organic raw material and imports processed foodstuffs for the few Romanian consumers interested in this niche market.

In ASAT, producers and consumers collaborate in an alternative – i.e. solidary –economic model in order to address the described market failures. For the farmers the opportunity to access a secure market in which prices are directly linked with their production costs and a fair payment for their labour is extremely appealing. For consumers this type of partnership opens a door to fulfilling their demand for fresh, organically produced healthy products. Our case study shows that such partnerships can represent a win-win situation and may therefore be seen as a successful rural innovation.

Our analysis points at some important aspects, which may be decisive for the success or failure of such CSA partnerships:

The success of the partnership depends on a special type of consumer. The target group is selected from the higher income, educated urban population who does not hold the price as the main criterion for food purchase. This is also a type of consumer convinced of the value of a healthy diet and of the damaging effects of synthetic agricultural inputs. He or she is willing to sacrifice the convenience of supermarkets on the challenge to pick-up a weekly share of vegetables of a variable quantity and composition. Clearly, the absolute number of this type of consumer in a region limits the number of possible partnerships.

For small farmers the CSA partnership is attractive as long as it offers a price premium. In the Romanian context the production of small semi-subsistence farms is often *de facto* close to organic, but farmers cannot afford to have it certified. This type of agriculture is called "traditional agriculture"; it does not allow farmers to access the price premium of the organic products market. The ASAT partnerships reward this type of agriculture without formal certification. However, in accordance with the limited number of consumer-partners, CSA is an option only for a minority of farmers. Our case pointed at certain features that seem to be supportive for farmers to become involved: their entrepreneurial personality, a background which offers insights

into the urban environment, and a high degree of commitment and social interaction. The farm size, age, gender or other farm and household related variables seemed less decisive.

We analysed CSA as one form of solidarity economy. Indeed, we could confirm that solidarity is an important element of the motivation on the consumers' side. Despite this, the interest in and willingness for personal engagement on the farm is rather low. While the NGO that initiated the partnerships intended to inspire consumers to organize themselves and form "shareholder CSAs", each around a local farmer, the result was "subscription CSAs" with a very low involvement of consumers.

With view to policy recommendations, we see CSA as an interesting solution for only a few. For the majority of farmers, it would be of high importance to find ways to cooperate to be able to access the regular markets. Also CSA could be further developed by encouraging producers to cooperate in the form of "multi-farm CSAs" and supplement each other's supply which could be directed at a larger group of consumers. For spreading the concept to other parts of the country, networking activities are important. As we did not see much potential for networking within the partnership, we see a key role with the NGO, who initiated the partnership.

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## ANNEXES

**Table A1: Vegetables and fruit offer of Farmer 2 for the entire 2011 Season**

	Vegetable name	Quantity in the weekly share
1	Potatoes (new)	2 kg
2	Spring onions	2 bunches
3	Onions	1 kg
4	Green garlic	2 bunches
5	Garlic	0.25 kg
6	Root vegetables	0.5 kg
7	Leaf vegetables	1 bunch each
8	Sorrel	2 bunches
9	Dock	2 bunches
10	Red Orach	2 bunches
11	Black radish	1 kg
12	Moon radish	2 bunches
13	Kohlrabi	2 pieces
14	Green salad	2 pieces
15	Beet root	1 kg
16	White cabbage	1.5 kg
17	Red cabbage	1 kg
18	Brussels sprout	0.5 kg
19	Summer cabbage	1.5 kg
20	Savoy cabbage	1.5 kg
21	Tomatoes	2 kg
22	Pepper	1 kg
23	Chilly pepper	5-6 pieces
24	Aubergine	2 kg
25	Green beans	1 kg
26	Peas	1 kg
27	Spinach	1 kg
28	Cucumber	1 kg
29	Zucchini	1 piece
30	Leak	1 bunch
31	Pumpkin	2 kg

Source: <http://asatleordean.ecosapiens.ro/> accessed December 2011.

Timespan 22.08-04.09. 2011, Price: Farmer Second= 37.3 RON; Farmer Third= 26 RON.

**Table A2: The content of ASAT shares of Farmer 2 and Farmer 3**

Products	Farmer 3		Farmer 2	
	Quantities	Quantities	Quantities	Quantities
	Week 22.08-28.08	Week 28.08-04.09	Week 22.08-28.08	Week 28.08-04.09
Tomatoes	2.5 kg	3kg	1.5 kg	2kg
Green beans	0.4 kg	0.8kg	1.2 kg	
Cucumbers	0.4 kg	0.7kg		
Onions	0.25 kg (7pcs.)	0.25kg (7pcs.)	0.4kg	0.4kg
Garlic	0.15 kg (3 pcs.)			
Carrots	0.2 kg (4 pcs.)			
Beetroot	0.7kg (4 pcs.)			
Aubergines	0.5 kg (2 pcs.)	0.75 kg (3pcs.)	0.7 kg	1kg
Zucchini	0.7kg (1 pc.)	0.7kg (1 pc.)		
Potatoes	1.5 kg		2 kg	1.5 kg
White Cabbage		1kg (1 pc.)	1 kg (1pc.)	1kg (1pc.)
Red Cabbage		1kg (1 pc.)		
Dill	1 bunch			
Parsley			1 bunch	
Celery leaves	1 bunch	1 bunch	1 bunch	
Sorrel				1 bunch
Peppers			0.7kg	1 kg
Kapia Peppers		0.5kg (5pcs.)		0.5 kg
California Pepper		0.1kg (1pc.)		
Fennel leaves		1 bunch		
Melon			3-5 kg (1pc.)	
Strawberries			0.3 kg	0.3kg

Note: pcs = pieces.

**Table A3: Comparative prices of the main ASAT products in other sales channels**

Product	Town market		Neighbourhood supermarket		Retail chain supermarket	
	Week 22.08- 28.08	Week 29.08- 04.09	Week 22.08- 28.08	Week 29.08- 04.09	Week 22.08- 28.08	Week 29.08- 04.09
Tomatoes	2/kg	0.9/kg	2.6/kg	2.3/kg	2/kg	2.2/kg
Cucumbers	2/kg	2/kg	–	1.8/kg	2.2/kg	2.2/kg
Carrots	2-2.5/kg	2.5/kg	1.5/kg	1.5/kg	2.5/kg	2.3/kg
Peppers	1.5-2/kg	2/kg	2.8/kg	2.8/kg	2.8/kg	2.8/kg
Kapia Peppers	–	2-3.5/kg	5.5/kg	4/kg	–	4/kg
Chili Peppers	–	5/kg	–	5.5/kg	4/kg	–
Potatoes	1-1.2/kg	1.5/kg	1.2/kg	1.3/kg	1/kg	1.8/kg
Green Beans	4/kg	2-4/kg	–	–	–	–
Parsnip	–	2/kg	–	–	–	4.5/kg
Onions	1.5/kg	2.5/kg	2/kg	1.5/kg	1.8/kg	1.8/kg
Zucchini	2/pc.	3/pc.	2/kg	2.5/kg	2.4/kg	2.2/kg
White Cabbage	1/kg	1/kg	0.7/kg	0.7/kg	0.7/kg	0.7/kg
Red Cabbage	–	–	–	–	–	1.3/kg
Aubergines	1.5/kg	1.5/kg	–	2/kg	2.9/kg	–
Celery	–	2/pc.	–	5/kg	4.3/kg	1.8/pc.
Beetroot	2.5/kg	3/kg	–	–	–	1.3/kg
Fennel	–	–	–	–	–	–
Parsley	1/bunch	1/bunch	1/bunch	–	0.8/bunch	0.8/bunch
Melons	1/kg	1/kg	0.6/kg	–	0.7/kg	–

Note: Prices are approximated by addition, for example from 0.99 RON to 1 RON. Where only prices per piece were available, the average weigh of one single product was measured (by making an average of repeated measurements) for being able to express the price per kilogram. Only the prices of vegetables from Romania were registered. Some of the prices are missing because we were not able to find all the products that ASAT offers, or because the respective vegetables in the supermarkets were of foreign origin.

**Table A4: Cash Value of an ASAT vegetable share calculated at prices of other marketing channels (RON)**

Farmer	Price calculated according to town market prices (RON)				Price calculated according to supermarket prices				Price calculated according to chain retailer prices (RON)			
	Week 1		Week 2		Week 1		Week 2		Week 1		Week 2	
Farmer 3	16		19.1*		18.4		22*		17		21.5*	
Farmer 2	23.2		13.3		23.1		16.6		22.5		16.8	
Farmer 1	sm	big	sm	big	sm	big	sm	big	sm	big	sm	big
Tuesday**	32.1	51.8	26.1	34.8	30.5	51.5	28.1	39	31	53.4	27.7	38.7
Farmer 1	sm	big	sm	big	sm	big	sm	big	sm	big	sm	big
Friday	23.1	39.6	22.6	29	23.1	39.9	24.7	31.1	22.7	40	24.8	31.8

Note: \* Products which could not be found in any of the 3 marketing channels (celery leaves, California pepper, fennel, sorrel, strawberries) The prices of these products were approximated with the town market prices of similar products, for example parsley and Kapia Pepper. None of the three outlets had Romanian garlic, but only garlic produced in China.

Note: \*\* Farmer 1 delivers two times a week, on Tuesdays and Fridays and the shares contain different quantities of products thus have different prices. He also delivers two types of shares: small and large.



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