ИКОНОМИЧЕСКИ ИЗСЛЕДВАНИЯ
ECONOMIC STUDIES

Volume 29 (6), 2020

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ECONOMIC ASPECTS OF URBAN AGRICULTURE

External and internal factors influence the potential of urban agriculture development. They lead to numerous effects and some of them stressed on the economic aspect. The benefits and effects of urban agricultural practices have an impact on people, society and the quality of life in the cities. The purpose of the article is based on the evaluation of the economic aspects of urban agriculture to propose conclusions about its economic benefits for people and society in Bulgaria. The study provides a literary review of various perceptions and authoritative views on the effect of urban agriculture from an economic point of view. The data is collected by qualitative methods of research connected to the economic aspects of urban agriculture and assessment is used for generalized conclusions about the economic benefits for people and society. The results are part of scientific project DN 05/18 Urban agriculture as a strategy for improving the quality of life of urban communities, funded by the Bulgarian Science Fund.
JEL: Q1; Q01

Introduction

Various factors influence the opportunities for the development of urban agriculture. Some of these factors result from the external environment as policy, markets, financing, etc. Other factors are related to the specifics and features of urban agriculture – climate factor, distance from the city, production volume, need for land and water resources. The third group of factors are related to the inclusion of the concept for sustainable development in the implementation of this type of activity – consuming local products, striving to produce environmentally friendly products, increasing land productivity etc. The appearance of the factors that influence the potential for the development of urban agriculture create prerequisites for the occurrence of the effects of this type of activity in environmental, social, economic, educational and other aspects. These factors affect people and their living environment, society and quality of life in the cities.

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Literature review of topics and perceptions of the economic aspects of urban agriculture

In the literature, the economic aspects of urban agriculture are evaluated according to the level of influence. Nugent (2003) defines two main directions of literature related to the economic impacts of urban agriculture. The first one is connected with the city case studies with quantitative information and the second direction is related to studies of the theoretical economic impacts of urban agriculture with descriptive accounts.

FAO (2007) defines three levels of definition of the economic effects of urban agriculture. On the household level, effects are related to direct economic benefits and the expenditures of urban households obtained in agricultural production. They are described as self-employment, processing income, sales of surplus products, saving on food and health care costs, exchanging of agricultural products for other goods, etc. On the city level, the direct costs of the support given to urban farmers (training, quality control, etc.) that are not carried out by farmers, as well the total indirect costs and benefits from urban agriculture for the city are taken into account. The effects have positive and negative impacts on the social, health and environmental status of the population. The third level is the macro level. The benefits are determined on the basis of the contribution of urban agriculture to gross domestic product (GDP) and its impact on the effectiveness of the national food system.

Fleury and Ba (2005) identify two socio-economic levels of consideration for urban agriculture: the level of the agricultural holding, and its interaction with the surroundings (neighbourhood), and the characteristics of the landscape and the area under cultivation. They also define the positive and negative effects of urban agriculture such as: waste recycling, greening the cities, less health problems, including those resulting from better nutrition for the poorest people in the cities, landscape conservation, water pollution caused by agrochemicals and erosion. All of this can be economically assessed. The positive effects add value to the city (increased income or reduced costs) and negative effects require additional investment or tax payments (Fleury, Ba, 2005). Hallet's et al. (2017) opinion is similar. It addresses two issues related to the urban economy: economic viability and the economic impact on neighbouring areas and the city. Urban farming creates very specific and diverse business challenges and opportunities for farms. According to the authors, urban agriculture also makes an economic contribution to the community. Urban farms can occupy unused territories and abandoned and desolate land, which reduces the municipality's costs of maintaining the territory.

Kinkese and Pride (2017) outline three types of economic benefits from urban agriculture. The first major benefit can be economic savings on food. Urban agriculture reduces food expenditures of farmers. Farm-produced food is consumed in their households and this reduces the overall budget for food. Another economic benefit is that urban agriculture is a source of income from the sale of agricultural products. The last economic impact, according to the authors, is that urban agriculture creates jobs and is a source of employment. Landowners hire either seasonal or full-time employees, depending on the working force requirements.

Authors such as Jamal and Mortez (2014) consider that the importance of urban agriculture and the sale of produced goods should not be underestimated either in volume or in economic value. They argue that the products are sold at the place of production, at local stores and at local farmers' markets. In contrast, other authors (Hunold, et al., 2017) consider that the contribution of urban agriculture to the achievement of economic development goals such as increasing capital assets, generating income or creating jobs is limited. The survey, conducted among the farmers, indicates that the respondents considered that with regard to the economic aspects of urban agriculture it is not economically viable. Opinions on the potential of urban agriculture to create economic benefits vary from shared views that urban agriculture will not continue to be cost-effective in the future to views that economic benefits from urban agriculture may increase in a more favourable financial and political environment (Hunold et al., 2017). Urban farmers and the organizations that support them are sceptical of the economic sustainability of urban farms. There are known cases where there is a great economic impact on small areas, but the reality for many urban farmers is the struggle to achieve results in the first few years and a business that, in many cases, can be rewarding but financially marginal. Hoornweg, Munro-Faure (2008) present different views on the economic sustainability of urban agriculture considering that it does not differ significantly from the economic sustainability of agriculture in general, as it depends on the value of some of the basic resources such as land, water and labour competing to be used for other urban uses. In this regard, the economic sustainability of urban agriculture depends on the application of specialized and improved technologies that allow the optimal use of resources. In regard to the economic benefit of urban agriculture as a source of income, authors as Simatele et al. (2008) argue that the benefits of urban agriculture for generating income are most significant among poor people in the cities because most of them have limited income and assets. Sources of income can also be renting the land and sharing the harvest. Other researchers share the view that urban agriculture can lead to a loss of household income and an increase in household food costs when there is a risk of poor harvests due to climatic conditions such as floods, droughts, natural disasters, etc. (Simatele et al., 2012).

Some authors define the level of the country's development impact on the economic aspect of urban agriculture. Urban agriculture has the potential to stimulate the development of local economies in developing countries, providing better food security and significant job opportunities (Agbonlahor et al., 2007). Nugent (2000) shares the view that the main macroeconomic effects of urban agriculture are related to the provision of food for relatively poor citizens and lower food prices and increased food security. In this respect, urban agriculture has the potential to diversify the economic possibilities and urban access to food resources.

Studies related to the evaluation of the economic aspects of urban agriculture take into account the economic benefits of this activity as a result of waste management. Smit and Nasr (1992) consider that the challenges concerning waste management could be overcome through the use of waste from urban agriculture. The economic effects are for the households that compost and return bio-waste to the soil. The effects are directed to the attitudes of farmers and consumers to rationalize the consumption of the food produced, regardless of its external outlook, in order to optimally utilize the food. Cofie et al. (2006) share the view that urban agriculture can contribute by transforming urban waste into

productive resources. This could be compost production, vermiculture and irrigation with wastewater. On the other hand, urban farms produce bio-waste that can be stored in a landfill and to be sold or exchanged. Drechsel and Kunze (1999) consider that urban agriculture could avoid the costs of waste disposal by implementing the nutrient recycling of organic wastes.

Krikser et al. (2019) determine some of the economic benefits of business-oriented urban agriculture. They are linked to increasing competitiveness through the use of new market opportunities, direct marketing, innovation and customer interaction that enable farmers to respond to changing requirements and market conditions for the achievement of greater economic stability. This business perspective differs from the public perspective, which focuses primarily on secondary or indirect public economic benefits, such as the potential of urban landscapes for improving the economic performance of the cities.

The topic of research interest in the project Urban agriculture in Europe[3], focuses on the economic dimension of urban agriculture as a socio-economic phenomenon. The participants in the working group Entrepreneurial Models of Urban Agriculture (coordinated by Wolf Lohrberg and Pedro Mendes Moreira) analyze and compare urban farms and projects in the context of their innovativeness and adaptability to the urban environment, their involvement in the economic system and its effects on the urban environment and society. Researchers consider that urban farms have the potential to be the "hidden champions" of an urban green development strategy. Various studies present that the adaptation and exploitation of urban and suburban farms from the urban conditions could be successful by implementing activity-oriented strategies and high value-added products; niche products based on organic production as well as through diversification of activities, including a wide range of non-agricultural activities related to primary agricultural production and focused on leisure, hobby, health, education, cultural and nature-related activities (Brayant et al., 2013; Zasada, 2011).

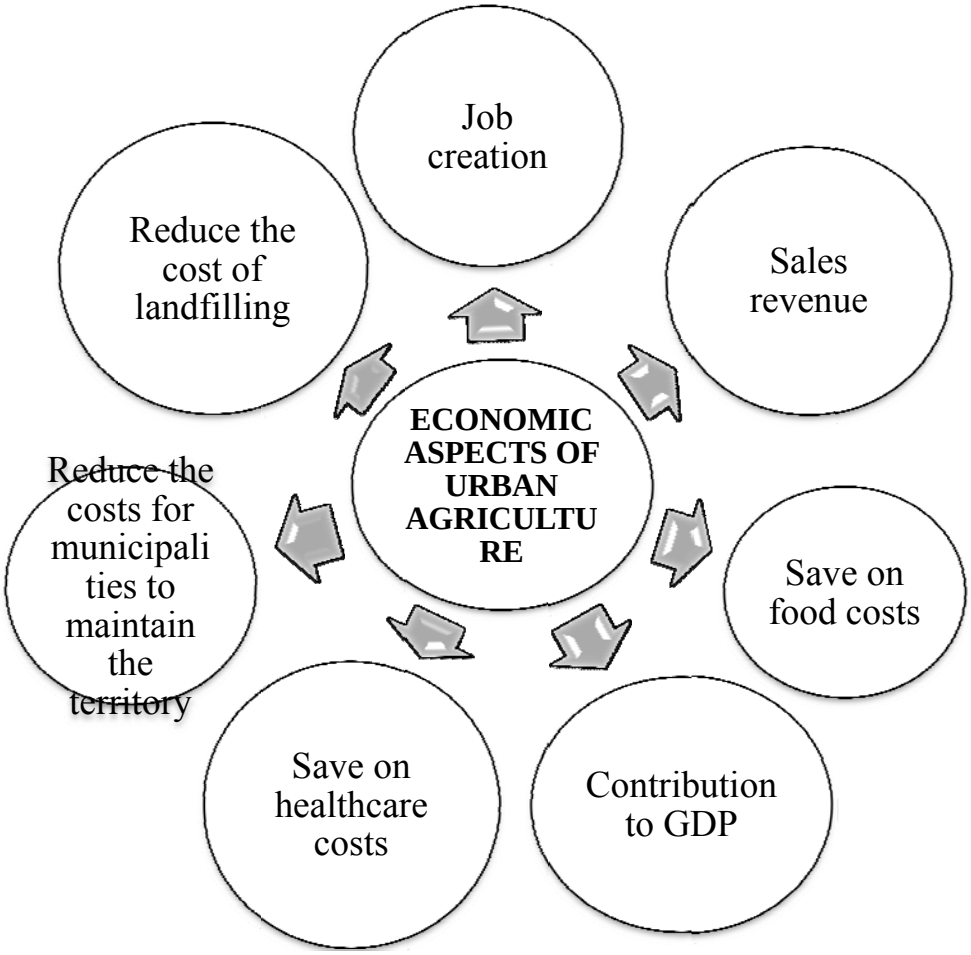
Another research focus on the economic aspects of urban agriculture is directed to the business models of urban agriculture and their role as an instrument for organizing value-adding processes (Henriksen et al., 2012; Van der Schans, 2010). One of the business models is CANVAS and is described as an instrument for analyzing structures and activities with economic and social benefits. The model is implemented after the adjustment and aims to describe and analyze agricultural holdings in different European cities within the European Commission's COST Research Network. As a complex system of interdependences between individual elements (customers/users; added value/products, services; communication channels; income/profits; assets/resources; costs; etc), the implementation of the CANVAS business model is the framework through which is prepared a review and comparative analysis of key success factors, obstacles and barriers, such as the potential for generating business ideas and the innovation of urban agriculture in Europe (Lohrberg et al.,2016; Pölling et al., 2017).

[3] COST action Urban Agriculture in Europe (2012-2016 is a networking project funded by the European Cooperation for Science and Technology (COST). Participants from Bulgaria are chief assist. prof. Dona Pickard (ISSK-BAS) and chief assist. prof Galina Koleva (ISSK-BAS).

Figure 1 summarizes the economic benefits of urban agriculture according to some of the opinions found in the literature.

Figure 1

Economic benefits of urban agriculture according to literature review



Source: own findings.

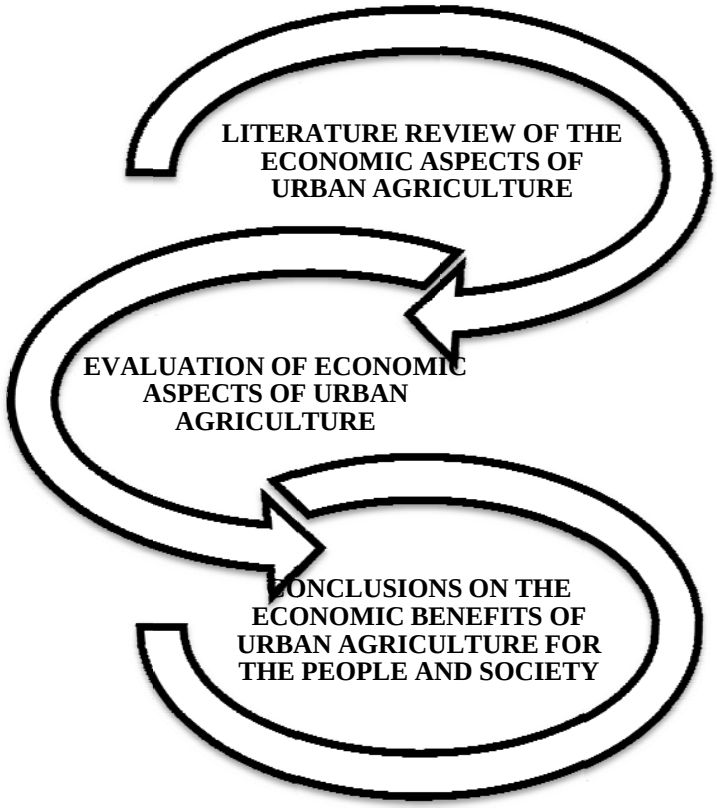
Methodological framework

The purpose of the study is based on the evaluation of the economic aspects of urban agriculture to propose conclusions about its economic benefits for people and society in Bulgaria.

The methodological framework of the study includes: 1) Literature review of the economic aspects of urban agriculture; 2) Assessment of the economic aspects of urban agriculture based on a qualitative study; 3) Conclusions on the economic benefits of urban agriculture for the people and society (Figure 2).

Figure 2

Methodological framework



The qualitative research, which serves as an empirical basis for the analysis and conclusions of the article, was conducted under the research project Urban agriculture as a strategy for improving the quality of life of urban communities. The conducted survey includes:

- 25 in-depth interviews with practitioners of urban agriculture in various categories: hobby gardeners, market-oriented farmers in the city, civic activists and representatives of the non-governmental sector, representatives of educational institutions (at all educational levels), municipal officials and representatives of different elements of the food chain (markets, distributors, restaurants);

- 5 focus group discussions with stakeholders on key issues affecting urban agriculture and its potential for improving the quality of life of urban communities;
- 5 expert opinions, providing specific and specialized data on issues regarding available resources for urban agriculture, the role of local authorities and mechanisms for interaction between different actors, participation of civil and private sectors in the creation of sustainable urban farming practices, etc. (Pickard et al., 2018).

The survey was held in 2018. The respondents involved in the survey were experts and stakeholders engaged in urban agricultural practices. The survey provides information on the social, economic and ecological aspects of urban farming practices in the Sofia municipality. Some of the questions are specifically addressed to the economic benefits and effects of urban agriculture. The opinion of the respondents about the unused resources of the Sofia municipality, their attitude to the consumption of healthy food and reduction of health care expenditures were also taken into consideration. The potential of urban agriculture for job creation and for increasing income was also assessed. Respondents who practice urban agriculture received questions related to the volume of production and the way they sell it, the availability of natural resources, in particular land and water, the motives for their activity as urban farmers, including the perception of the activity as a business or hobby, etc.

The results are part of the scientific project DN 05/18 Urban agriculture as a strategy for improving the quality of life of urban communities, funded by the Bulgarian science fund.

Analysis and evaluation of the economic aspects of urban agriculture

The results from the structured interviews and focus groups show that the benefits and effects of practising urban farming are diverse. They describe social, environmental, economic, educational and information effects. The weight of each of the aspects could be different.

The economic impact of urban agriculture is not defined as significant either in the long term or in the short term. In the long term, social and environmental effects are dominant. Respondents consider that the economic benefits of urban agriculture are negligible due to the small scale of production. According to them, no significant economic dimension can be taken into account as a result of the application of the urban agriculture since the products are used mainly for the producer's own consumption. An exception is observed of the surveyed market-oriented farmers who sold products on the market but on a small scale. The benefits of the products from urban farming have mainly of a social (educational effects, communication, community building and networking) and environmental character (creating a cleaner urban environment, enriching the land, restoration and maintenance of biodiversity, production of environmentally friendly, local vegetables and fruits). In this regard, the main aim of urban agriculture is not related to meeting the economic needs. The respondents consider that the non-economic interest stimulates this type of activity, emphasizing that the production does not use fertilizers, preparations and the products are

produced in an environmentally friendly manner. This leads to a limitation of the volume and the income.

According to some respondents, urban agriculture does not have an economic dimension, and the goal is that people are informed in which way the food is produced and where the food comes from. Some respondents do not associate the purpose of practising urban agriculture with economic profit, because the production volume is rather small and is too limited to provide the livelihood of urban residents. According to other urban farmers, people create, communicate and have fun.

"I don't think the economic impact of urban agriculture is that great. In the long term, the social effect, not the economic one, dominates." Z. T., man

"There are no economic effects at this moment, but there could be - when urban agriculture gets larger. Otherwise, it is desirable that the food we buy be produced in the city or as close to the city as possible." K. K., man

Although respondents evaluate the economic benefits with the least importance, they consider that there is still an economic impact from urban farming. Despite the widespread view that the economic benefits of urban agriculture are negligible, some respondents consider that the economic benefits may increase, because vegetables are not treated with fertilizers and this will reflect in increasing demand.

Other interviewers connect the economic benefits of urban agriculture with the consumption of healthy food, which will result in less healthcare expenditure. Practitioners in communal shared gardens expect that the economic benefits will increase in the future.

Respondents divide the economic benefits into two groups: benefits for the individual and benefits for society. They consider that the economic benefits are rather for economic actors who practice urban agriculture, and they have a possibility for subsistence and cost savings for the products consumed by the household. Individual economic benefits are linked to the food production and the saving of financial resources. Respondents share the view that the economic impact may be very large for the individuals, but may be small for the scale of the city. Others associate the economic benefits with saving food costs and the profit they generate when they sell their production. Some respondents believe that their economic performance is very good, especially when it is the season of production and the economic dimension is expressed in financial income and employment.

"The economic effects are for the family. Not so economic as healthy because they know what they consume." Tz. T, woman

"You will not pay money for things that are in the store. If you have a garden of your own, which is already a rarity, you will not pay money for certain vegetables that you can grow yourself." V. D., man

"The results are very good. From a financial point of view, when it's a season and we have production. We receive money from what we offer in the markets, we cultivate three acres. It is really justified, it makes sense from a financial point of view, yes, economic benefits, employment. It would be also harder without the rent we get." V. D., man

Respondents agree that the economic impact of urban agriculture on society and the city is not big, since the share of urban agricultural production from the total production of the city is relatively insignificant and in this connection, urban agriculture cannot solve the economic problems of the municipality such as food security, employment, poverty due to the size of Sofia. Some of the respondents indicated potential economic benefits with a public significance. They are associated with composting in terms of landfill. The overall economic effect is "*savings from the disposal of plant residues, garden and park waste that save the municipality additional financial means for transportation to the landfills of the municipal waste collection system."* According to the respondent, a household waste tax may be linked to whether the household composts and accordingly saves the municipality the transportation of waste. They also share the view that there is an economic impact on society from the fuel economy due to the elimination of the need for long-distance transportation of the products and the preservation of road infrastructure.

"For me, the economic effect is a very small percentage of the overall economy of the city. It is difficult for me to predict the extent to which urban agriculture can grow, but as a share of the city's overall economy, it has not on a large scale., Z. T., woman

"I save at least 30-40% of compostable landfills, i.e. almost 50% is saved on landfill – this is a big amount saved from transport and greenhouse gas emissions." I. S., woman

Some of the respondents considered the benefits of urban agriculture from an economic viewpoint and linked them to the production of better quality products at a lower cost. From a societal perspective, the economic benefit of better quality products is created because the product life cycle traceability is facilitated and there is a control of the production process. The price is relatively lower because the production is bought directly from the producer, which means short supply and communication chains. The respondents stated that there is a direct producer-consumer connection, which leads to a lack of surcharges and a lower cost of production. In addition, small-scale urban farmers produce smaller quantities of production and this provides products of a higher quality. The consumer receives high quality at a lower price. Respondents also identified the economic benefits associated with consuming healthy food. Clean food improves and maintains better health, which can save on costs for healthcare and medicines.

"It can be said that the economic benefits are related to the creation of a quality product name. The biggest benefit of urban agriculture is that it produces fresh production. With all the requirements of technology and control, this is a high quality, safe and delicious production at a good price. In addition, a direct producer-consumer link is created." N.G., man

The effects of an economic nature that influence people and society are the benefits shared by respondents related to job creation, job opportunities and income. Respondents consider that the main economic aspect related to improving the quality of life is the creation of employment. Opinions differ in accordance to the group of practitioners for whom the urban agriculture has the greatest benefits. Some of the respondents consider that these practices would encourage retirees and the unemployed to provide food and social communication. Other respondents point out minority groups as a target group.

"... from an individual producer's point of view, the economic benefit is that it creates job opportunities, generates employment and also income from the sale of production." A.G., man

"In other countries, urban agriculture is often linked to the employment of minority groups, for example in areas where there is a severely disadvantaged social group (in a gypsy ghetto), if we bring it to Bulgaria – if there is an initiative to launch urban agriculture and these people engage in work, it would have a profound effect on them." S. N., woman

"For the unemployed, it can also be a bit of a livelihood." A.G., man

The respondents shared their views in relation to the provision of natural resources, in particular, land and water as necessary resources for producing and operating their activities. The ways to obtain these resources are diverse. Some of them provide the land they need for their own production and water for irrigation. This is especially observed by market-oriented urban farmers who develop their farms on their own land and water sources. Other urban farmers use municipal land that they rent and water resources close to the place of production. A third group of farmers cultivate urban agriculture on land with an unknown statute, such as practitioners in the communal garden "For Druzhba". Some of the respondents consider that they were not informed whether the municipality provides resources for the urban agricultural practices in Sofia and they were not informed if the municipality had a policy of supporting urban agriculture. However, they note that under the TOURAS project Sofia municipality has expressed its readiness to take over the maintenance of irrigation facilities, to provide a market for the production and to organize farmers' markets in Sofia.

The shared views on land and water provision indicate that in most cases, the water used for production activities is drilling or rainwater and the land statute in terms of ownership is diverse.

Respondents' views on their provision of land and water resources are presented in Table 1.

Table 1

Main views related to the provision of water and land

Water Supply Sources	Provision of Land
❖ Draw well/ drilling water	❖ Own land – purchased or inherited
❖ River water	❖ Municipal land
❖ Rainwater	❖ Land with unknown statute
❖ Drinking water	❖ State land

Source: own findings

"I don't know if the municipality is doing it, but our project (TURAS) was aimed at getting it started. And the municipality expressed its readiness to support for irrigation, to provide a market for the sale of the production. But I still do not know at the moment that we have such a support policy." S.M., man

With regard to the issue of the unused resources of the Sofia municipality, the respondents are of the opinion that the Municipality has huge unused potential for the development of

urban agriculture. They identify as unused resources, mainly land and water resources. These are undeveloped park spaces, neglected parks, public gardens, inter-block spaces, demolished terrains of former factories, places that can be landscaped and restored by urban farming practices. Some respondents consider that the Sofia municipality had many unused territories that could be used for urban agricultural development and these areas defined as: large pre-block areas that are currently covered in weeds and grass; the free municipal plots of land that are not currently being used rationally and have been turned into landfills. Some of the suggestions in this regard are: to keep a register of vacant land and the information to be accessible and transparent; to initiate territorial management practices and anyone who is interested to organize a group and to make a contract with the municipality.

There are also opinions connected with the proposal that unused areas such as meadows, roofs of blocks should be used for urban agriculture. An example is given by an urban farming practitioner who grows zucchini, blackberries, raspberries on the roof of a dwelling block, which is of interest to people, but the mayor of the municipality declared the practice illegal. On the other hand, some of the respondents identify parks and inter-block spaces as an opportunity to organize communal gardens on the areas and spaces that are not used. These areas can be used for children to play. In relation to urban farming practitioners, respondents share a view that the municipality can support these activities by providing space and also soil composition tests.

"Parks are an option for communal gardens, especially in those parts that are currently unusable. Inter-block spaces too. Kids could observe a lot of things in practice, in the yard when they play there. .... It is good if the Municipality provide such areas and also support soil composition tests, because people rely on organic farming, but if you use very unburned manure, there is plenty of nitrogen in it and then you will consume production with nitrates." V. D., man

"There are a lot of unused resources, there is so much abandoned land. Even if they are not abandoned, there are some parts of the park that are neglected and can also be used for urban agriculture. There are many willing people, but they need to have the possibility to practice this activity. I don't know if the municipality could not help. Whether they are rented for a small rent or just on a voluntary basis." E. L., woman

The shared views on specific support and funding show that there is a need for funding for ideas related to urban agriculture and that funding is needed for this type of activity, but that support should be targeted after analysis of regulatory legislation. Purposeful support will not stimulate the development of urban agriculture, but stakeholders who have initiatives and need financial assistance to realize their specific ideas have to be encouraged. Some of them consider that their initiatives are realized through voluntary participation and funding through donations, but that is not enough to develop sustainable urban agriculture. Other respondents share the need for project-based financial support. They want to have more projects for this type of activity, more opportunities for application and this will help to sustain their activity in the future. They propose options for financial support that can be implemented through tax breaks, preferential credits, financial support programs at national and European levels.

"Yes, in principle there should be, but in my opinion artificially generated support will not help. It will help if some groups of people need financial help to realize their specific ideas. It will be useful to have an analysis of the regulatory environment in which specific initiatives are implemented." S. M., man

"Mostly from the municipality. What I told you was building the right infrastructure. Other help – financial support is always needed. For example, some programs to help people who practice urban agriculture." A.G., man

The economic effects of urban agriculture are most widespread in the case of urban farmers with a market orientation. Market-oriented producers are one of the stakeholders who are defined as subjects of urban agriculture; they were the focus of the qualitative research carried out.[4]

The urban market-oriented producers interviewed describe the economic benefits of agricultural activity, assessing some of the following factors: their perceptions for the activity they develop, availability of natural resources that are a source for their production, financing, etc. They all see their activity as a business – for example, they produce, they have production costs, sell their production, have regular customers and earn income. They share the view that farming provides them food and it is a job they love to do. They consider that they search for a profit maximization.

"Yes, it's a business because we want to maximize our profit. We are not able to cover all the expenses, but we always wanted to have our own revenue and profit." N.G., man

"Absolutely. That's what we live on." A.G., man

The qualitative data support the thesis that at this moment, urban agriculture practiced in the Sofia municipality has less importance for providing food and economic benefits, which are much more closely related to market-oriented farms. The most significant benefits from urban agriculture are to be found in the educational, social-communicative, value-oriented, consumption-oriented, environmentally and sustainable aspects. On the other hand, the data support the hypothesis that urban agriculture as a market realization is in the process of gradually entering, and strengthening the emerging market niche for environmentally friendly, fresh and local food. There are sustainable needs and growing expectations for

[4] Five interviews were conducted with farmers focused on the marketing of seasonal vegetables, spices (herbs?), fruits and dairy products, produced mainly in the suburban areas of Sofia Municipality. Three of them (Versa Natura, Chile Hills, baby vegetable grower) successfully grow organic vegetables, create their own product and business model, rely on their own network of people and business associates; one respondent (goat and sheep breeder in Lozen) produces dairy products (yoghurt and yoghurt, cheese and meat), which sells primarily to regular customers seeking pure, natural foods with which he has trust and respect on an informal basis; director of a training field (EEH of the University of Forestry, Vrazhdebvna), licensed as a farmer, where, in addition to carrying out agricultural activities for educational and research purposes, he organizes direct sales of milk to consumers from Sofia (less frequently directly from live animals) as well as selling milk to a processing plant on a contractual basis.

healthy food and a healthy lifestyle. In this regard the thesis for the role and contribution of small producers of local food in a broader, social perspective – not only in terms of employment, income, entrepreneurship and business, but also in the socio-cultural aspect as contributing to the maintenance of traditions and identity, upholding prestige and uniqueness, trust building, recognition and embeddedness in the environment and community. Some urban farmers operating in the local market practice as small-scale enterprises and structures and they have the characteristics and advantages of their "small" size. These advantages make them important and necessary for the local market and society – relying on family work, greater flexibility and adaptability to the environment and changes; good local knowledge, supporting local culture and traditions, including varieties and biodiversity, contributing to the diversity of products and the diversity of local cuisine.

An important conclusion about the economic aspects of urban agriculture is related to the thesis about the role of urban agriculture and urban local food producers. They spread an alternative consumer model for food in comparison with mass and conventional consumption. This model is based on a different type of values and on a responsible and supportive attitude towards the local environment. Small-scale urban farmers are an important segment of the short-lived food chains. Farmers use these chains and as well they are a factor in their development as an example sustainable supply and consumer channels. This is related to the farmers' markets, the festivals of traditional and natural foods, the online networks for the supply of bio and organic products, the specialized health food stores. These relatively new food consumer models reinforce environmental attitudes and values, responsible attitudes and behaviour towards nature and the urban environment, value attitudes to food and its origin, nature-friendly, and a more responsible attitude to waste management, composting and recycling.

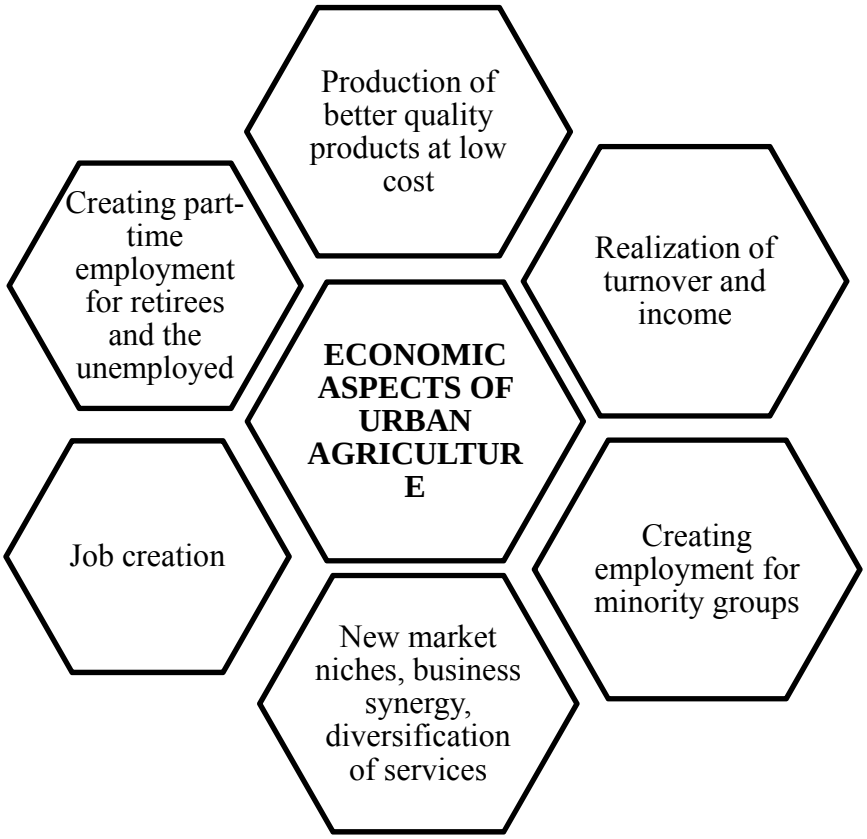
The data show that the farms surveyed are successfully integrated and well-recognized in the market. Each producer finds his/her own way to connect with consumers – through the farmers' markets organized by Hrancoop with the assistance of the district administrations (Versa Natura, Chile Hills); through "direct access to 3-5 clients" (producer of micro salads and baby vegetables from Boyana); through marketing strategy and distribution network (Chile Hills business model); through direct sales in the home for regular customers who connect with the producer through social networks or through acquaintances and friends (dairy producer – Lozen).

It is logical that people who produce fresh crops for the market and define this activity as a business that provides them with employment and income, emphasizing the economic benefits and importance of urban agriculture. These practices provide employment, a field for personal realization and they are a source of income for them and their families as well as for the people they hire. In addition, the wide variety of products offered by some farmers, as well as their "uniqueness" and specificity (Baby Vegetables, Chile Hills, Versa Nature), creates a specific niche for production, as well as contributes to the formation of consumer tastes and consumer models focusing on fresh and clean food, which also catalyzes the economic impact of urban agriculture.

Figure three presents the summarized economic benefits of urban agriculture for people and society.

Figure 3

Economic benefits of urban agriculture for people and society



Source: own findings.

Conclusions and recommendations

Based on the respondents' opinions related to the economic dimensions of urban agriculture as benefits, effects, employment, turnover and income, etc. the following conclusions could be drawn that support the thesis connected with the possibilities of urban agriculture to improve the quality of life of urban communities:

- Urban agriculture creates employment and provides job opportunities. It has the potential to create employment, if agriculture is organized and structured as a business model that creates jobs. In most of the cases, these jobs can be defined as green jobs.

- Urban farming generates income from the sale of production. On the one hand, it is an opportunity for additional income and for freelancers and retired people to produce for their own consumption; on the other, it could be temporary employment for the unemployed.
- The local communities that would benefit most from being involved in urban farming activities are: students, retired people, unemployed and businesses. In many cases, small producers are family farms and the family relies entirely on agricultural activity.
- Urban agriculture provides employment opportunities for minority groups and launching this type of initiative and engaging these people would have a profound effect on them and the community. This help to overcome problems of poverty and social exclusion.
- Urban agriculture contributes to the development of new consumer and market models, new market niches, synergy and diversification of production and services.
- Based on the analysis of the qualitative survey and information related to market-oriented farmers, the economic effects of their activities could be summarized as follows:
- Market oriented urban farmers develop the potential to promote the expansion and market positioning of the local food business. This business is significant for the future and influences both the quality of life and sustainable development in economic, and social aspects. The interest in healthy food from urban agriculture is increasing with the support of local producers because of the spreading ideas about a healthy and environmentally friendly life. The issue of branding local food and production, traditional and typical products is currently being discussed.
- Local food offers opportunities for synergies between new and established businesses by complementing, upgrading production and services, as well as by tightening and closing production chains.
- Business services are diversified through the marketing of health foods, menus in restaurants that do not simply offer food, but place a particular focus on its qualities (gourmet, “real, with” real “products), vegetarian/vegan restaurants, etc.; recreation services, culinary events/days, festivals, farmers’ markets, festivals (focusing on traditions, customs); educational initiatives based on food cultivation and culinary skills.
- Interviewed urban producers did not mention the “shady side” of informal and unregulated producer-consumer relationships based on closeness and trust. I could be suggested because they are convinced of the qualities of their products and the growing interest in the production from urban agriculture. Producers who sell in the farmers’ markets are convinced of their economic need and benefits, not only because they meet their customers there, but also because it is a secure and regulated market with requirements and rules that “further” lighten business and increase confidence. However, the issue of the sale of home-produced foods that are not of good quality and

beyond all registration and accountability is very substantial. This issue has to be specially studied.

- Urban farmers operate in the urban economic and social environment and this provides them with various opportunities and responsibilities that go beyond the production. On the other hand, the impact of the city on farms and agriculture is complex and is associated with new opportunities, niches for the development and diversification of agricultural activities.

Based on the analysis of the economic effects of urban agriculture for people and society and the impact on the quality of life, can be concluded that urban agriculture does not provide the nutritional resources that the city needs. Therefore, the production capacity and economic benefits of urban agriculture that is developed on the territory of Sofia municipality are not highly evaluated by the respondents at this stage. Employment and income for citizens could be created in market niches, where specific business models for small businesses are applied. These models include mainly flexible part-time work to provide additional income, but also full-time farming, especially in peripheral urban areas. The characteristics of agricultural activity in and around the city area are linked to short supply chains: trust in each connection during the product life cycle, personal contact, solidarity with producers, nature care, very fast feedback and the opportunity to improve production and the service.

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