

# Production and Supply of Regional Food Products – Incentives and Challenges for the Small Holdings in Bulgaria

Gergana Nikolova Balieva<sup>1</sup>, Magardich Huliyan<sup>2</sup>

<sup>1</sup> Trakia University, Faculty of Veterinary Medicine, Department of Veterinary Legislation and Management, Stara Zagora 6000, Bulgaria

<sup>2</sup> National association of small family farms and processors, "Lozenska Planina" № 17-19, Sofia, Bulgaria

**Abstract:** *There are numerous studies investigating consumers' behaviour that indicate strong and increasing interest in buying local food products. Such products are subject of extensive discussions in society but although regulated at European level, certain difficulties exist in Bulgaria concerning their legal status, requirements for production and supply. With this paper we set up the aim to analyze the current situation on the Bulgarian market regarding the opportunities for supply and demand of regional products, according to the relevant legal documents. The role of short food chains is discussed considering their importance for the development of small holdings. Suggestions are made for reconsidering the national legislation and solving some of the difficulties for the small family farms in their attempts to provide local food products.*

**Keywords:** small holdings, regional products, short food chains.

## 1. Introduction

Modern society witnesses how in conditions of globalization the trade of goods for satisfying consumers' needs is becoming more intense. This applies fully for all kind of goods, including food, which distribution to the consumers has to overcome even geographical barriers. Despite the wide expansion of markets, another phenomenon appears as an alternative way of satisfying consumers' needs – the so called short food supply chains (SFSCs).

Attempts to characterize the "alternative", "local" and "sustainable" food supply networks made many authors [6], [7], [4], [9], while others tried to determine the main types SFSCs [10], [1].

According to Kneafsey et al. [5] the consumers have different view on what appears to be a local product regarding the distance from the farm it was produced. At the same time Galli & Brunori [3] explain that the definition "short" has its physical and social dimensions, as the physical distance between producer and consumer varies according to every political context.

Direct and indirect positive effects of SFSCs functioning on the producers (usually small holdings, family farms) appear to be also subject of scientific interest. Analyzing the challenges which small and middle-scale milk producers encounter, WWF – Bulgaria [16] assume that shortening of the chain by bringing producer, processor and trader into one, results in better traceability of products and guarantees better profits for the farmers. Similar observations has Dower [17] who concludes that by SFSCs farmers could receive a larger share of the final price of their products due to decreased number or total absence of intermediaries between them and the consumers.

## 2. Aim and Objectives

The ongoing global discussions on the role of short food supply chains focused our scientific interest towards the impact of the systems for supply of regional products on the development of the small holdings in Bulgaria as main actors in the local agri-food networks. With this regard, we set up the aim to analyze the current status of Bulgarian market with emphasis on the regulated opportunities for supply of local food products. For this purpose the following tasks have to be completed:

- To determine the main channels for supply of regional products at national level;
- To make a content analysis of national legislation laying down specific requirements for supply of small amounts products of animal origin directly to the consumers;
- To identify the main challenges small farmers face in their willingness to participate in the SFSCs;
- To point out the direct and indirect effects on the animal health and welfare of the short food chains for supply of products of animal origin.

## 3. Material and Methods

For the purpose of the study we made a content analysis of official documents [8] from the Bulgarian legislative basis, as well as reports of working groups from the Rural Development Programme and National Rural Network. We studied as well evidence documents and publications from different institutions within EU with focus on various aspects of SFSCs, rural development, etc.

## 4. Results

After the structural reforms in the agriculture sector since 1990 in Bulgaria there has been massive fragmentation of farms with a predominant share of small and medium-scale

farms. Although during the last years the holdings have started to consolidate, still main driving mechanism in rural regions appear to be small and medium family farms. Their existence and survival is mostly possible due to the established in the country traditions for supply of local products.

Regarding a national survey of status and needs for development of short food supply chains in Bulgaria [14], the main types of short channels functioning within the local argi-food networks, could be identified as follows:

**Table 1:** Forms of direct supply of food and foodstuffs in Bulgaria

<i>Types local agri-food networks</i>	<i>Types short food supply chains</i>
Direct sales by individual producers/microprocessors of own raw materials	Sale on the farm gate
	Sale on farmers` markets
	Sale on a stand by main roads
	Sale on farm restaurant/hotel
Collective direct sales	Delivery to the consumers` doors
	Common scheme for delivery by a group of producers to a group of consumers
	On-line deliveries
Partnerships producer-consumer	Local festivals
	Supply of products with prearrangement with consumers and having paid by them part of the production costs in advance

Most of the described short food chains are not formally regulated and function seasonally – especially for supply of fruits and vegetables. Concerning animal products such seasonality is not observed. Moreover, a lot of questions arise for safety of animal products within SFSCs, although their traceability is easier in the direct supply process.

In Bulgaria in order to meet all hygiene requirements for breeding animals and deriving safety products of animal origin, all holdings have to be registered by the competent authorities and to sign contract for veterinary services with a veterinary practitioner. This applies even for the small farms, using the animal production for their own consumption. On the other hand, the farmers willing to sell some of their production directly to the consumers, have to be registered in accordance with the national ordinance for direct supply of small amounts raw materials and products of animal origin [2]. On Table 2 we point out opportunities for such direct supplies.

**Table 2:** Permissions for direct supply of raw materials and products of animal origin

<i>Categories raw materials and foodstuffs of animal origin</i>	<i>Permissions for direct supply</i>
1. Non-processed products	
• Honey and other bee products	On-site sale from the apiary; sales from bazaars, markets, retail shops – laboratory analysis for each batch needed
• Raw milk	On-farm sale; sale from technological installation – maintaining 4-6 °C
• Eggs from laying hens and quail	On-farm sale; municipal markets; sale to local retail shop; to local catering establishment
• Fresh/chilled sea and	On-site sale from the vessel; from

freshwater fish	ports and fish-farms; sale to local retail shops
2. Fresh meat from poultry and lagomorphs, slaughtered at the farm	On-site sale from separate slaughtering premise at the farm; sale to local retail shops
3. Processed foodstuffs of animal origin	On-site sale from the processing establishment; from mobile refrigerator; sale to local retail shops
4. Shot big and small game, meat from big and small game	On-site sale from game-processing establishments at the hunting areas

It is important to note that when the farmer supplies with raw materials and foodstuffs local retail shop in the same or neighbouring administrative area, he/she has to be either a tenant or owner of the object. The producer is obliged also to keep a record of all documents (laboratory analyses, etc.) concerning safety and traceability of foodstuffs.

The mentioned requirements, as well as the accompanying procedures for registration, cause certain difficulties for the small family farms. Some of the obstacles appear to be:

- Construction and maintenance of technological installation for direct sale of raw milk.
- Construction and maintenance of separate premise for humane slaughter of poultry and lagomorphs at the farm, with all activities for carcasses processing separated by time or space.
- Construction and maintenance of mobile refrigerator for direct supply of processed foodstuffs from animal origin (e.g. yoghurt, cheese, sausages).
- Lack of certain appointed for sale of local products markets within the most administrative regions, etc.

It seems logically to us that farmers could overcome the difficulties in case they have certain financial resources. As currently most of the small holdings have limited resources, crucial for them appears to be the process of decision-making for distribution of the finances among the main economic activities on the farm. We assume that lack of competence, experience and education for decision-making could certainly lead to some of the following negative effects (especially on the economics of animal health and farm as a whole):

- Underestimation of certain aspects of animal health in order to reduce the production costs and thus creating conditions for invasion of contagious or parasitic diseases or diseases due to conditionally pathogenic agents.
- As a consequence, the diseases have negative economic impact on livestock as production resource – decreased feed conversion, reduced growth and fertility, increased mortality.
- Direct negative effect animal diseases cause to the production – reduction of quantity (raw milk, eggs) or quality (poor quality of raw milk due to mastitis, etc.).
- Indirect negative effects of the animal diseases due to improper allocation of the resources on the farm appear to be the additional costs for vaccinations, quarantine, veterinary services for treatment and even cease of direct supplies to consumers due to reduced product quality.

## 5. Discussion

Typical characteristic of rural regions in Bulgaria is the existence of households with low income rate, most of which function as small family holdings in order to ensure their survival. At present, these family farms represent approximately 23% of all holdings in Bulgaria and operate primarily as individuals or sole proprietors [15]. Data from the sub-programme for development of small farmers in the country [15] show that approximately 28% of the small-scale holdings use more than a half of their production for their own needs. The rest some of them sell within the SFSCs which helps them to increase their revenues by eliminating the intermediaries. We assume that the regulated at national level opportunities for direct supply of small amounts of raw materials and foodstuffs from animal origin, could not give significant impact on the small family farms, as the requirements set suppose additional financial investments, impossible for the farmers.

More favourable for small producers appear to be only the requirements concerning direct supply of honey and bee products, as before and after the adoption of the ordinance the way these products are traded by farmers (package, storage, etc.) remains the same [14]. Example that supports our assumption for successful development of SFSCs for honey, is a national survey of the market for honey and bee products in Bulgaria [18]. Data show that 60% of the consumers prefer to buy honey directly from the producer, 26% of them buy from their family network (relatives and friends), 17% of the consumers prefer products from local markets and only 8% of them buy honey from shops.

Regarding the other activities, permitted with the ordinance (direct supply of raw milk, eggs, fresh meat, processed foodstuffs, etc.) the requirements remain strict in order to ensure the safety of these products. Taking into account the size of the workload and the channels for realization of production, it is obvious that semi-subsistence holdings and small farms do not have economic resources to meet the legislative requirements. To ensure those farms could operate legally within the SFSCs, it is necessary to start public discussion on reconsidering national policies and recognizing within the legislative basis the specific characteristics of small family farms. For this purpose experience could be drawn from other EU member states, France for example, where producers follow the requirements for processing (for milk products, etc.), laid down by Good Practice for Hygiene guidelines [19], specially adopted for small producers and farmers. Processors of meat products, selling them within distance of 80 km between their establishment and the point of sale, have only to transport the products with isotherm vehicle (refrigerated vehicle is needed for distance beyond 80 km). The adopted measures certainly have positive impact as the share of farmers selling production through SFSCs have risen from 16% in 2005 to 21% in 2010 [19]. Support to small farmers is given also by the local authorities in Italy, Sardinia region, who have bought mobile slaughterhouses and submitted their management to local farmers associations in order to facilitate the implementation of hygienic rules for slaughtering animals on-site at the farm [3].

To meet the challenges arising from direct sales operations some small producers and processors form associations for collaboration and easier managing of short food supply chains. In Bulgaria such organizations are relatively new structures – for example National association of small family farms and processors, different local initiative groups, etc. We believe that it is the farmers' organizations that have the real possibility in direct dialogue with national authorities, to raise initiatives for changes to facilitate the operation of small holdings within SFSCs. Such initiatives in other countries have given results already – in Latvia for example, due to collaborative efforts of organizers of farmer markets and representatives from the Slow Food movement, a consensus with the minister of agriculture was achieved to increase the established 8 days per year for operating of such farmer markets [3].

Other opportunities for strengthening the positions of small holdings in the process of supply of regional products are associated with investments in their production. Certain activities in this context are planned in the support scheme for small farmers from 2015 within the framework of the Common Agricultural Policy (CAP), which aims at setting up simplified and eased terms for financial incentives for small farmers [13]. Within the framework of the national programmes for rural development, each producer from EU has the opportunity to apply with a project for financing by the European Fund for Rural Development (EFRD). Example of an innovative approach for development of local agribusiness in Austria appears to be a project, funded by EFRD, for creation of on-line database for foodstuffs offered by farmers' conglomerate [12]. Consumers have the possibility through special application for smart phones to see where local products (as bread, meat, milk products, honey, etc.) are sold. The overall aim of the project is to attract more consumers to come on-site at the farms and buy directly from the producers.

Considering the characteristics of rural areas in Bulgaria, we express our opinion that special attention should be paid as well, to initiatives for stimulating small farmers whose production appears to be a part of the developed rural tourism activities. Such alternative approach for operation of short food chains is not new for the society [11], as the significant contribution of local foodstuffs and drinks is considered as a key factor for promotion of regional touristic products. Similar initiatives exist in other EU member states – for example a project was developed in collaboration with Austrian and Hungarian producers for promotion of touristic offers, based on local culinary traditions [3]. Their efforts received financial support both from the national budget (15% funding) and from EFRD (85% funding).

Taking into account the significant impact of SFSCs on development of rural areas and strengthening the positions of small producers and processors, we have to point out as well the positive effects SFSCs give on the economics of animal health and welfare, as animals are one of the main sources for production of local foodstuffs:

- Assuming that within direct supply channels producers receive major share of the price of the final products and

have the opportunity to increase their revenues [16], [17], we find it possible some financial resources to be distributed for better animal health management – better living conditions (spacious premises, quality feed, adequate veterinary services) and exploitation.

- As SFSCs are characterized by short-distance operations, the short-journey transport of animals (e.g. poultry and lagomorphs for slaughtering for direct supply of fresh meat) will result in reduction of stress and risks for manifestation of conditionally pathogenic diseases, respectively reduction of costs for treatment.
- Regarding the experience of other countries in providing mobile slaughterhouses for facilitating the small holdings [3], we agree that similar initiatives in Bulgaria could be taken for construction and equipment of slaughtering premises on-site at the farms. Such actions will have positive impact on the economics of animal welfare at slaughter, as in other circumstances the small-scale farmers operating in SFSCs could not meet the welfare and hygienic requirements.

## 6. Conclusion

Based on the analysis of legislative documents at national level, regulating the possibilities for direct supply of regional products, we could make the following conclusions:

- In Bulgaria, as in other countries in Europe and worldwide, the main types of short food supply chains are established, part of which appear to be traditional way for supply of local products directly to the consumers.
- Presently existing specific requirements for supply of small amounts of raw materials and foodstuffs of animal origin at national level (according to the European legal framework) cause certain economic and logistic difficulties for small producers and processors.
- Discussion for joint actions and measures have to be initiated between the different farmers` organizations and the competent authorities in order to overcome the challenges for small and middle-scale holdings operating within SFSCs (state support for establishment of markets for local products; support for construction and equipment of facilities for processing and storage of agricultural and animal products; development of specific hygiene requirements for foodsafety considering the characteristics of small producers and processors, etc.)
- The competent state authorities should continue their efforts for development and implementation of support schemes for financial stimulation of small farmers in order to increase the share of semi-subsistence holdings operating within SFSCs and to use more efficiently the local resources (human capital, plants, animals).
- Regarding that the described types of SFSCs are relatively new phenomenon in Bulgaria, we agree that further studies are required to determine the effect on the economics of animal health and welfare of those channels for supply of regional products of animal origin.

## References

- [1] Abate G., “Local Food Economies: Driving Forces, Challenges, and Future Prospects”, *Journal of Hunger & Environmental Nutrition*, vol. 3(4), pp. 384-399, 2008.
- [2] Anonymous (2010), Ordinance № 26/14.10.2010 on the specific requirements for the direct supply of small amounts of raw materials and foodstuffs of animal origin. *Off. Gaz.* 84/26.10.2010, amend. *Off. Gaz.* 46/03.06.2014.
- [3] Galli, F., G. Brunori (eds.), “Short Food Supply Chains as drivers of sustainable development”. Evidence Document. Document developed in the framework of the FP7 project FOODLINKS (GA No. 265287). Laboratorio di studi rurali Sismondi, ISBN 978-88-90896-01-9, pp. 21-28, 2013.
- [4] Hinrichs, C.C., “The practice and politics of food system localization”, *Journal of Rural Studies*, vol. 19, pp. 33-45, 2003.
- [5] Kneafsey, M., Venn, L., Schmutz, U., Balózs, B., Trenchard, L., Eyden-Wood, T., Bos, E., Sutton, G., Blackett, M., “Short Food Supply Chains and Local Food Systems in the EU. A State of Play of their Socio-Economic Characteristics”. Luxembourg: Publications Office of the European Union, EUR - Scientific and Technical Research series - ISBN 978-92-79-29288-0, p. 23, 2013.
- [6] Marsden, T., Banks, J., and Bristow, G., “Food Supply Chain Approaches: Exploring their Role in Rural Development”. *Sociologia Ruralis* 40 (4), pp. 424-438, 2000.
- [7] Murdoch J., Marsden T. e Banks J., “Quality, nature, and embeddedness: some theoretical considerations in the context of the food sector”, *Economic Geography*, vol. 76, pp. 107-125, 2000.
- [8] Orloev, N., *Methodology of scientific research*. Centre for education and management of higher education, Rouse, 2002.
- [9] Renting H., Marsden T.K., Banks J., “Understanding Alternative Food Networks: Exploring the Role of Short Food Supply Chains in Rural Development”, *Environment and Planning A*, vol. 35, pp. 393-411, 2003.
- [10] Venn, L., Kneafsey, M., Holloway, L., Cox, R., Dowler, E., Tuomainen, H., “Researching European ‘alternative’ food networks: some methodological considerations”, *Area*, vol. 38, n.3, pp. 248-258, 2006.
- [11] Anonymous (2011), “Culinary tourism – a part of the common regional tourist product”. [Online]. Available: <http://selskiturizam.org/%D0%A0%D0%B5%D0%B3%D0%B8%D0%BE%D0%BD%D0%B0%D0%BB%D0%B5%D0%BD-%D1%82%D1%83%D1%80%D0%B8%D1%81%D1%82%D0%B8%D1%87%D0%B5%D1%81%D0%BA%D0%B8-%D0%BF%D1%80%D0%BE%D0%B4%D1%83%D0%BA%D1%82/2011-03-24-09-13-24.html> . [Accessed: Aug. 24, 2014].
- [12] Anonymous (2014), “European Agricultural Fund for Rural Development (EAFRD) – Examples on Food Projects”. [Online]. Available:

- [http://enrd.ec.europa.eu/app\\_templates/enrd\\_assets/pdf/EAFRD-project-brochure/EAFRD-projectExample2014\\_en.pdf](http://enrd.ec.europa.eu/app_templates/enrd_assets/pdf/EAFRD-project-brochure/EAFRD-projectExample2014_en.pdf) . [Accessed: Sept. 9, 2014].
- [13] Anonymous (2014). Ministry of Agriculture and Food - CAP 2015-2020. Scheme for small farmers. [Online]. Available:  
[http://www.mzh.government.bg/MZH/Libraries/%D0%94%D0%B8%D1%80%D0%B5%D0%BA%D1%82%D0%BD%D0%B8\\_%D0%BF%D0%BB%D0%B0%D1%89%D0%B0%D0%BD%D0%B8%D1%8F\\_2015-2020/2014\\_07\\_11\\_Analysis\\_Small\\_farmers\\_scheme\\_ext.sflb.ashx](http://www.mzh.government.bg/MZH/Libraries/%D0%94%D0%B8%D1%80%D0%B5%D0%BA%D1%82%D0%BD%D0%B8_%D0%BF%D0%BB%D0%B0%D1%89%D0%B0%D0%BD%D0%B8%D1%8F_2015-2020/2014_07_11_Analysis_Small_farmers_scheme_ext.sflb.ashx). [Accessed: Sept. 22, 2014].
- [14] Anonymous (2013). Report of the Thematic Working Group 1: Status and Needs for the Development of Short Food Supply Chains in Bulgaria. [Online]. Available:  
[http://www.nsm.bg/sites/default/files/1-%D0%9A%D1%8A%D1%81%D0%B8\\_%D0%B2%D0%B5%D1%80%D0%B8%D0%B3%D0%B8\\_%D0%B7%D0%B0\\_%D0%B4%D0%BE%D1%81%D1%82%D0%B0%D0%B2%D0%BA%D0%B0-%D0%B4%D0%BE%D0%BA%D0%BB%D0%B0%D0%B4%20%D1%84%D0%B8%D0%BD%D0%B0%D0%BB%D0%B5%D0%BD-16%D0%BE%D0%BA%D1%822013\\_1.pdf](http://www.nsm.bg/sites/default/files/1-%D0%9A%D1%8A%D1%81%D0%B8_%D0%B2%D0%B5%D1%80%D0%B8%D0%B3%D0%B8_%D0%B7%D0%B0_%D0%B4%D0%BE%D1%81%D1%82%D0%B0%D0%B2%D0%BA%D0%B0-%D0%B4%D0%BE%D0%BA%D0%BB%D0%B0%D0%B4%20%D1%84%D0%B8%D0%BD%D0%B0%D0%BB%D0%B5%D0%BD-16%D0%BE%D0%BA%D1%822013_1.pdf). [Accessed: May 27, 2014].
- [15] Anonymous (2013). Thematic sub-programme for development of small holdings in Republic of Bulgaria - 2014-2020. [Online]. Available:  
[http://prsr.government.bg/Admin/upload/Media\\_file\\_bg\\_1394582117.doc](http://prsr.government.bg/Admin/upload/Media_file_bg_1394582117.doc). [Accessed: Sept. 24, 2014].
- [16] Anonymous (2009). World Wide Fund for Nature /WWF/ - The Problems of Small and Medium-Sized Milk Producers in Bulgaria. [Online]. Available:  
[http://awsassets.panda.org/downloads/hygiene\\_brochure\\_eng.pdf](http://awsassets.panda.org/downloads/hygiene_brochure_eng.pdf). [Accessed: Apr. 18, 2014].
- [17] Dower, M. (2012). Small farms and short food chains vital part of EU. [Online]. Available:  
<http://www.arc2020.eu/front/2012/04/small-farms-and-short-food-chains-can-become-a-vital-part-eu/>. [Accessed: Aug. 12, 2014].
- [18] Georgieva, A. (2012). The market for honey in Bulgaria – strong product, poor branding. National Survey of Market LINKS. [Online]. Available:  
<http://www.marketlinks.bg/links.php?ln=1&color=1&page=bulletin11&brand=1>. [Accessed: Sept. 10, 2014].
- [19] Sans, P. 2012. Short channels in France: Do they meet consumers concerns? In: Food Safety of the Short Supply Chain – Symposium SciCom 2012, pp. 59-65. [Online]. Available:  
[http://www.afsca.be/scientificcommittee/symposiums/\\_documents/Proceedings\\_2012\\_18102012\\_2.pdf](http://www.afsca.be/scientificcommittee/symposiums/_documents/Proceedings_2012_18102012_2.pdf). [Accessed: June. 26, 2014].