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SHORT FOOD SUPPLY CHAINS FOR PROMOTING LOCAL FOOD ON LOCAL MARKETS

INCLUSIVE AND SUSTAINABLE INDUSTRIAL DEVELOPMENT

Acknowledgements

This document was prepared by Giovanni Belletti and Andrea Marescotti, Professors at the Department of Economics and Management at the University of Firenze, Italy, under the guidance of Fabio Russo, Senior Industrial Development Officer at UNIDO and with the contributions of Nuria Ackermann, UNIDO Chief Technical Advisor, Project of Market Access of Agri-food and Terroir products (PAMPAT), Tunisia, Ebe Muschialli, UNIDO Associate Industrial Development Expert, and Sabrina Arcuri, University of Firenze. The authors wish to acknowledge the valuable comments provided by Michele Clara, Senior Industrial Development Officer, UNIDO.

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Disclaimer

Comments

Comments and suggestions on issues raised in this report are welcome and may be addressed to Fabio Russo at **f.russo@unido.org**.

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List of abbreviations

AAFN: Alternative agri-food networks
CSA: Community supported agriculture
EU: European Union
PYO: Pick-your-own
SDG: Sustainability development goal
SFSC: Short food supply chain
SPG: Solidarity purchasing group

Introduction

In recent decades, the agri-food system has been subject to rapid and deep changes. A number of demographic, political, social, technical, economic, and cultural factors has led to the emergence of an industrialized model of food provisioning, where large-scale food processing firms and supermarkets chains dominate the scene in the framework of a growingly globalized food system.

Consumers' behaviour and needs did change too, due to the evolution of society and economic systems. Urbanization is one of the main factors that distance the places of agricultural production from those of food consumption, which asks for a growing number of connections (transport, storage, packaging, processing) carried out by a plurality of actors. Moreover, both income growth and changes in work organisation and family structure ask for improved services incorporated into food.

In order to achieve scale economies and cut production costs, the industrialized model of food provisioning forced farms to specialize on a few products and phases of the production process. Consequently, farmers gradually stopped performing direct delivery to final consumers, as well as processing their products on-farm, thus delegating food processing and distribution to specialized firms outside the borders of the farm, increasing the number of steps between agricultural production and final consumption.

Today, food processing industry and distribution are asked to provide a growing number of functions and operations to meet the new needs of more and more urbanized consumers, thus increasing the geographical, temporal, and cultural distance between agricultural production and final consumption.

The industrialized model of food provisioning seems to be highly efficient in performing these new functions as compared to previous models of organising production and distribution, and this explains why this model has spread and is currently dominant at world level. However, this model is raising concerns and is subject to criticisms under many points of view, among which difficult access to market to smallholders and small and medium enterprises, environment pollution, and menace to food safety and nutrition appear the most important ones (Renting et al., 2003, Ilbery and Maye, 2005, Sonnino and Marsden, 2006).

Contest of typical food products in Morocco

The high number of steps, and the increasing distance between production and consumption, are at the basis of the "revolution" brought by Short Food Supply-Chains initiatives (SFSCs), especially in Europe and in the United States, although a number of interesting opportunities is also pointed out for other countries, included developing ones (Moustier and Renting, 2015).

The growing interest for SFSCs around the world, especially from farmers, consumers and citizens, and public institutions (Marsden and Arce, 1995; Aguglia, 2009; Allen et al., 2003), witnesses the need for searching alternative food systems able to provide some

Promotion of PDO Djebba figs in a supermarket in Tunis, Tunisia

"functions" that the industrialized model seems not able or willing to provide (Anderson, 2008). Expected positive effects from enhancing SFSCs initiatives range from economic benefits to both producers and consumers, to strengthening social relations, preserving the environment, improving nutritional aspects, and enhancing local development.

Shortening food chains can contribute to more than one of the objectives of United Nations Agenda 2030 for Sustainable Development. In particular, expected effects of SFSC initiatives can mainly contribute to Responsible consumption and production (Sustainable Development Goal 12). Moreover, SFSCs can contribute to other Sustainable development goals related to social issues, in particular Poverty and hunger reduction (SDGs 1 and 2), as well as to enhancing gender equality (SDG 5) considering that territorial products are often produced by women. SFCS also contribute to the environmental ones, specifically Making cities and human settlements more inclusive, safe, resilient, and sustainable (SDG 11) and to Combat climate change and its impacts (SDG 13). With their positive impact on income generation and job opportunities as well as on building productive capacities in an inclusive manner, SFSCs can contribute to inclusive and sustainable economic growth and industrial development (SDG 8 and 9). Finally, SFSCs contribute to diversify food production systems and marketing channels, allowing for higher resilience in front of global market disruption.

The United Nations Industrial Development Organization (UNIDO) is fully committed to contributing to the achievement of the above-mentioned SDGs, thus the relevance for the Organization of promoting SFSCs. UNIDO has a long-standing experience in agri-food value chains development around the globe by fostering business linkages, improving quality compliance, enhancing productivity and promoting market access.

Since 2010, UNIDO has been implementing projects valorising food origin-linked products and shortening food supply chains. These projects ensure that Small and Medium Enterprises (SMEs) and farmers within the assisted value chains become the driving force of endogenous process of local development, maximizing the potential of agri-food products, including the linkages with the tourism sector, and that the benefits are fairly distributed along the value chain.

The aim of this paper is to give an insight over the main typologies of SFSCs initiatives, and to discuss their potential benefits and drawbacks. The ultimate goal is to raise consciousness on the potential of SFSCs initiatives for achieving local development, better market access to smallholders, and higher food quality to consumers, and to discuss how these initiatives may be developed in a sustainable way.

Section 1 is devoted to introducing the main features of SFSCs and give the general framework and basic concepts. Section 2 describes the main typologies of SFSC initiatives, together with some dimensions that characterize these initiatives. Section 3 analyses potential benefits and limits of SFSCs for producers, consumers, and society as a whole, while section 4 focuses on main functions affecting the performance of SFSC initiatives. Section 5 draws some conclusions and recommendations. A UNIDO case study is presented in the Annex.

1. Conceptual framework

1.1. Defining short food supply-chains

The term "short food supply-chains" (SFSCs) encompasses different typologies and operating models. Farmers might sell their products to consumers in many ways: off-farm, in the neighbouring places of consumption such as farmers' markets, in shops owned by farmers themselves, in food festivals and fairs, through farm-based delivery schemes, or through one single trade intermediary (cooperative shops, specialist shops, supermarkets, etc.). Farmers can also sell their products directly to public institutions' collective catering, such as school or hospital canteens, in the framework of public procurement schemes, and to restaurants, hotels and private catering companies (HORECA). In some of these cases, SFSCs can also correspond to non-local sales, in particular direct internet sales/long distance farm-based delivery schemes (Kneafsey et al., 2013). Other types of on-farm schemes involve consumers travelling to the place of production for shopping (farm shops, farm-based hospitality and agritourism, roadside sales, pick-your-own schemes, etc.), and some other types are based on long-term partnerships between one or more producers and consumers, where the latter have a say in farmers' decisions and labour, such as in Community Supported Agriculture (CSA) or Solidarity Purchasing Groups (SPGs).

Broadly speaking, SFCSs aim at reducing the "distance" between agriculture and final consumption, directly re-connecting farmers to consumers, and are at the crossroad of economic, environmental and social issues and needs.

The shortening of the supply chain may be interpreted under three different points of view:

- the reduction of the physical distance between the farmer and final consumers;
- the reduction of the number of steps that connect the farmer to final consumers;

- the increase of cultural and social proximity between farmers and consumers.

SFSCs are often defined according to these three dimensions, which are not mutually exclusive[1], although they may have different emphasis depending on the players involved and the objectives of the initiatives. Definitions vary according to cultural, political, social, and economic specific contexts where these initiatives are embedded in (EIP-AGRI, 2014)[2]. Therefore, the world of SFSC initiatives can be conceived as a universe of different types of connection between production and consumption (Slee and Kirwan, 2007; Goodman et al., 2011).

In the context of SFSCs, farmers and consumers are the key categories of stakeholders, and the success of the initiatives is often measured comparing outcomes to their expectations:

- farmers' expectations normally involve prices, in terms of higher level and stability over time, but also other benefits such as market diversification, long-lasting trade relations, access to direct information from consumers; moreover, there are "non-economic" expectations too, such as better social gratification, or the awareness of contributing to environment protection;
- consumers' expectations are equally diverse: from seeking lower prices for food, to access to certain types of products and quality attributes (traditional and local products, freshness), to get more information and knowledge of both products and production process, to activate social relationships and participated initiatives, to support local producers, and to contribute to environmental preservation.

In other words, objectives pursued may attain to different aspects:

- economic aspects: allow better market access for small farmers, jumping marketing middlemen and improve the value distribution along the supply chain, benefitting farmers to gain higher value added and/or consumers to obtain final price reduction (Belletti et al., 2010);
- environment/health-nutrition aspects: reduce the geographical distance between the place of production and of consumption, which aims at granting

Street food sale in Costa Rica

1 Physical distance reduction and number of steps reduction are not necessarily coincident: indeed, there are chains geographically located but with a high number of intermediate steps, as well as supply chains where the farmer sells directly to an end consumer hundreds or even thousands of miles away.

2 For example, the EU in Regulation (EU) No 1305/2013 on support for rural development by the European Agricultural Fund for Rural Development at art.2.m defines SFSC as "a supply chain involving a limited number of economic operators, committed to co-operation, local economic development, and close geographical and social relations between producers, processors and consumers". In France the National Ministry of Agriculture defines as short chain ("circuit court") when there is no more than one intermediary between producers and consumers, thus including those initiatives where the participation of restaurants, canteens, shops is important to foster rural development. In case when both producers and consumers come from the same region, the term short proximity chain ("circuit court de proximité") will be used (EIP-AGRI, 2014, and http://www.manger-local.fr/circuits-courts/qu-est-ce-que-les-circuits-courts).

higher freshness and quality of food delivered, guaranteeing its provenience, and reducing the environmental impact and other negative environmental externalities (less energy for transportation and storage, protecting local agro-biodiversity, defending peri-urban agricultural land) (Pretty et al., 2005; Hogan and Thorpe, 2009);

- social aspects: increase the active role of farmers, final consumers, and social movements in the agri-food system. The rapprochement between farmers and consumers makes it possible to increase the leading role of these categories, usually perceived as "passive" in front of the strategies of the intermediate operators of the agri-food system (processing industry, retail), and to activate direct social relationships between farmers and consumers, building new relations of trust, solidarity, participation.

1.2. "Short" or "alternative" food supply-chains?

SFSCs are often labelled as "alternative" supply-chains[3] (Goodman, DuPuis, and Goodman, 2012). The assessment of the "alternativeness" of these new forms of connection is normally based on the message conveyed and the ultimate goals of the initiatives (Allen et al., 2003; Watts, Ilbery, and Maye, 2005).

In a first "soft" meaning, SFSCs can be seen as just another opportunity to differentiate the ways agri-food products are marketed, and therefore they are placed side by side with conventional forms of distribution but without questioning the fundamental principles of industrialized agri-food system. In a second "hard" meaning, SFSCs are conceived as carriers of an alternative message, therefore being radically opposed not only to the conventional forms of distribution, but to the same industrialized model, as they wish to deeply change the rules of the game.

The same happens with reference to the role of consumers in SFSCs, who normally recover a more active role than in conventional supply chains, to the point of becoming the protagonists and activators of these new forms of connection (Alkon, 2008). In other words, it is necessary to understand whether the consumer is driven by purely "economic" principles (the desire to save money), or her purchasing act responds to ethical and social principles of "transformative" content, as a reaction after years of delegation to, and trust in, an increasingly technological and globalized agri-food system and its negative effects on sustainability.

In practice, these two visions often integrate and merge within SFSCs, to the point of outlining a continuum of situations that are sometimes in contrast and sometimes in agreement with modern channels, in some cases depicting ambiguous situations too (Hand and Martinez, 2010; Durham, King, and Roheim, 2009).

This is also reflected in the evolution of SFSCs: the first initiatives labelled as SFSCs were meant to re-create environmentally-sustainable agri-food systems, economically sound, and socially fair, leaving space for democratic participatory process of co-building between producers and consumers (Rossi, Brunori, and Guidi, 2008). These characteristics have evolved in time when SFSCs have grown and spread in a diversified set of typologies, and today we observe a certain tendency to dilution, if not to a real erosion, of the original values and objectives (ecological, ethical, political) (Sonnino and Marsden, 2006; Holloway et al., 2007) and to the growth of importance of purely economic objectives (Kirwan, 2004). This is also because players belonging to the industrialized agri-food system have somehow

3 Some authors have suggested to abandon the term "alternative" to adopt "civic" or "rights-based" (Lamine, 2005).

Farmers market in New York, USA

"captured" values and symbols of SFSCs (SUSTAIN, 2008; Mount, 2012). Indeed, given consumers' attraction to the underlying idea of SFSC, more and more players in food processing industry and both traditional and modern distribution firms are trying to adopt some of their operating mechanisms and some values of the logic of shortening the chain, thus introducing logistical and organisational innovations. So we see a "local" emphasis in large-scale distribution, which (when driven by the search for authenticity) offers space and visibility to products of local origin. In some cases, large-scale retail has entered into agreements with "farmers' markets" by offering them space to hold their own events periodically, with the purpose of revitalising its image; while some retail chains are considering the possibility of providing logistics services to joint purchasing groups in their area. At the same time, an increasing number of traditional retail and private and public catering operators (Brunori and Galli, 2012) are re-territorialising their supply systems in order to offer better service (and a renewed image) for the consumer.

Therefore, very significant opportunities open up for the promotion of short chain values, but at the same time there are also risks of unfair competition (i.e. where the "false" short chain crushes the more "authentic" market) and more generally of the dilution of the ideals that marked the first phase of development of this innovation.

In conclusion, the diffusion of the "short", "local" and "alternative" forms of connection between production and consumption cannot be interpreted according to a dichotomous key with respect to the concepts of "long", "global" and "standard", as this would inevitably lead to neglecting the great complexity and variety of concrete situations. In the real world, "long" and "short" types and logics often integrate and merge, outlining a continuum of situations where different short supply chains are in competition with each other.

Food Quality Label Harissa ready for local supermarkets distribution, Tunisia

1.3. Short food supply-chains and "local food"

An important dimension of SFSCs initiatives is related to the concept of "local food", which is normally perceived as one of their pillars.

Consumers are showing a growing interest towards localness of food, perceived as having both higher intrinsic quality (more healthy, fresh, and diverse), and the potential to benefit local community and foster rural development, environmental preservation, agrobiodiversity, and social justice, allowing the participation of small family farms to market. As Brunori (2007) states, "local food conveys meanings which are strong enough to potentially detach consumers from conventional food networks and attach them to alternative food networks whose impact is more sustainable, equitable, healthy".

There is not a clear definition of local food, its meaning depending on the specific socio-economic and political context (Tovey, 2009). In practice, there is a variety of definitions; the most common and easily understandable one is strictly linked to the "food miles" concept (Pretty et al., 2005; Hogan and Thorpe, 2009). According to this definition, no matter about the number of intermediate steps the food follows nor its "values". The only thing that matters is the geographical distance (miles) between the place of production and the place of consumption, while what may change is the maximum amount of miles that food has to travel to be still included in the term "local" (Dunne et al., 2010; Martinez et al., 2010). In short, local food is essentially a product that has been produced close to the consumption area or, to be more precise, close to the place of purchase (a shop, a restaurant, a farm). Indeed, physical distance should be extended to the distance between the place of production of other inputs (including e.g. pesticides, animal feed) and the farm. When this whole network of exchanges is analysed, some commonly held (mis)conceptions can be reversed (Coley et al, 2009; Durham, King, and Roheim, 2009).

Other criteria can be used to define the "localness" of a product (Feagan, 2007; Belletti, Casabianca e Marescotti, 2013). Indeed, a widespread meaning of local food assumes a different interpretation of the locality, not so much related to how food reaches marketplace and consumers, looking instead

to the link between the product and its place of production in terms of specificity of local resources used in the production process, history of the product and the production and consumption tradition, and its collective dimension (Belletti and Marescotti, 2011). These products are commonly referred to as "origin products" or "typical products".

The specificity of local resources affects the quality characteristics of the origin product, too, and it may come from the physical environment where it is produced (winds, soils, temperature and humidity, genetic resources, etc.), as well as the human resources and know-how (breeding, handling and processing practices, cultivation techniques, etc.). Know-how and practices are usually highly specific, and transmitted through time from one generation to the next, adapted to the evolution of the environment and society on the basis of contextual local knowledge and scientific progress. Moreover, there is also a consumption tradition specific to the place of origin, namely knowledge of how to eat the product and when, how to prepare and cook it, how to taste it, and how to evaluate its quality. History and cultural traditions are closely connected to the third specificity, the collective dimension (Berriet, 1995; Barjolle, Chappuis and Sylvander, 1998). Actually, the link of origin products with the territorial area has been created, and transmitted over time within a community of producers and consumers in such a way that the product becomes part of the common local patrimony, something that cannot be individually owned. The process of knowledge acquisition (often contextual and non-codified), accumulation and sedimentation makes an origin product the expression of a community of producers and often of the overall local community organisation, values, traditions and habits. That is why origin products have a patrimonial dimension (Bérard and Marchenay, 1995): the product characteristics, the way of producing, storing, marketing, consuming and appreciating an origin product, are all part of the patrimony and historical memory of the local community, which alone should have the right to use it to attain economic, social and cultural benefits. The origin product can also represent a catalyst of local community action, one that can reinforce promotion initiatives at the local level (Bérard, Marchenay and Casabianca, 2005).

The link between the production system and the territory of production is in some cases encapsulated in legally protected geographical indications (Tregear et al, 2007), as well as frequently being expressed in less formalized ways, often related to specific marketing channels (Kirwan, 2006) and embedded in relational/cognitive/institutional relations with the community concerned. This geographical name is used as the main communication leverage to market the product to consumers, owing to the reputation acquired over time on the basis of repeated purchases and the maintenance of the promise of quality.

Promotion of honey awarded with medals at the Moroccan Contest of typical food products, Morocco

In the end, the concept of local food is quite flexible, as we can observe a variety of definitions along a "continuum" ranging from the simple criterion of distance from the place of production to the place of consumption, up to more articulated ones which includes other economic, social, cultural, environmental criteria.

2. The variety of short food supply-chains initiatives

In the real world, there is a huge variety of SFSC initiatives, which take on very different characteristics and operating methods, albeit inspired by the same principle of geographical, economic, and social reconnection between production and consumption.

Before quickly introducing the most relevant ones for the purpose of this work, it is important to note that the lack of a clear definition of the concept of SFSC, together with the ambiguity and different interpretations of the concept of local food and localness, contributes to make the picture even more complex.

In the following paragraphs an overview of the most important SFSCs initiatives will be provided, starting from initiatives promoted by farmers (both individually and collectively), then analysing consumers-driven initiatives, and finally introducing other SFSC initiatives where the link between farmers and final consumers is mediated by an intermediary step.

2.1. On-farm selling

Farm-gate sales is a traditional form of marketing that producers have always been adopting, by just selling their produce directly on farm or close to the place where the farm is located, or on roadside stalls. Farm-gate sales are characterized by the fact that consumers are moving to the place of production, devoting time and resources to this activity.

FARM SHOP (COSTA RICA)

Despite the fact that the coffee production process is composed of a plurality of steps and typically highly globalized, interesting practices of SFSCs are spreading all over the world, including on-farm selling.

Don Cayito is a family-owned coffee farm in Santa María de Dota, Costa Rica, a well known region for quality coffee, due not only to the characteristics both soil and climate of the region, but also to local coffee farmers know-how and production experience. Coffee plantations are located between 1650 – 2100 m of elevation in a wonderful landscape of steep slopes.

Looking for that high quality standard, Don Cayito started processing its coffee on-farm in a micro coffee-mill since 2009. There they can give an appropriate follow-up to the work at the farm, dividing the harvest in lots and micro lots according to coffee variety and the process applied (washed, honey or natural). Shortening the value chain was a need, in order to better communicate the special quality of coffee to both final and professional consumers, and increase the value added. Don Cayito's coffee is sold not only abroad (mainly USA and Japan), but also in Costa Rica, through an online shop and an on-farm store, where it is possible to taste and buy the Don Cayito specialty coffees.

BOX 1

Source: https://cafedoncayito.com/

PICK-YOUR-OWN (CROATIA AND BRAZIL)

Croatia

Sven is a fruit grower from the small village of Brežane Lekeni ke, located in Sisak-Moslavina County wants to encourage people to come and pick home-grown apples themselves, as well as use such an approach to potentially open up a new sales channel. The farmer, with all types of apples growing in his large orchard, has invited the public to come and pick them themselves, as many as they want, for a price of between just one and three kuna depending on the type of apple taken. This initiative has been taken both to front a workforce problem – the farm was not able to find people for harvesting – and too low prices offered by local wholesalers.

Brazil

Two small properties in the state of São Paulo chose to replace conventional distribution with distribution only by the pick-your-own. The first farm produces strawberry (in 1,5 hectare since 2016) and the second farm produces table grapes (in 4,8 hectares since 2013). In both cases, consumers use a basket and scissors (in the case of grapes) to pick the selected fruits, after being instructed on how to harvest the fruit straight from the foot, without damaging the rest of the plant, while being observed by the farm staff. The price to be paid occurs according to the amount harvested, and the visitor can choose to consume on place or take it away, using boxes provided by the producers. In the case of the grape farm, the strategy has been to invest in new grape varieties to extend the period when the property is open to the public. Among the main advantages observed, proximity and loyalty of consumers, the reduction of distribution costs, and reduction of product losses, lower competition and better profitability for the producer. Farmers needed to adapt the structures to better accommodate the visitor, in terms of organization, cleanliness, restroom installation, availability of covered areas for sun protection.

Source: https://www.total-croatia-news.com/lifestyle/30930-want-some-fruit-pick-it-yourself-one-kuna-per-kilogram
Lima, Pigatto, and Machado (2018),

BOX 2

Nowadays, direct selling has undergone many evolutions thanks to the connection with the new needs of consumers, in terms of convenience, quality of the product and personal satisfaction, thus generating opportunities for creating value added.

Customers would come to the farm to buy seasonal produce, special products, or even, in some cases, to collect themselves directly on the field. The degree of organization and complexity of on-farm selling varies a lot, from unstructured and very seasonal selling, up to the creation of shops inside the farm, also depending on the availability of processed products such as wine, cheese, coffee.

One emerging typology of on-farm selling is known as pick-your-own (PYO), u-pick, cut-your-own or choose-your-own, and is a frequent direct marketing channel choice for farms growing berries, vegetables and fruits in general. PYO formally emerged in the United States when prices for some fruit and vegetable crops hit low levels in the 1930-40s, prompting some producers to allow customers to come to the fields to pick their own product for purchase. An increase in "rural recreation," as people drove to the countryside from the cities for leisure, also influenced the popularity of PYO marketing (Leffew and Ernst, 2014). Besides the satisfaction of collecting their own fruits and vegetables and enjoying some time surrounded by nature, PYO also allows customers to save up to 40-50% compared to the prices of shops

AGRITOURISM (ALBANIA AND BRAZIL)

Albania

Agritourism is a relatively new phenomenon in Albania. One of the first Albanian holiday farms is "Mrizi I Zanave", located near the village of Fishtë. in the district of Lezha, about 80 km north of the capital Tirana. The owner, after some working experiences abroad, opened this agritourism in a family farm, focusing on the use of local ingredients and the rediscovery and reinterpretation of traditional local recipes. Also thanks to the connection to Slow Food movement, Mrizi I Zanave had great success with both local customers and tourists. This allowed to develop farm production, and to activate a demand for products from numerous smallholders nearby. Mrizi I Zanave not only uses these products for preparing meals, but also direct sell them to hosts.

Brazil

The "Caminho Caipira/Caipira Way" is a rural agrotourism, located in the municipality of Borborema (state of São Paulo/Brazil). It offers lodging, dinner, breakfast, goat milking, cultural events, hiking, space for camping, lodging, rustic lunch, colonial breakfast, cultural events, and cows-milking. Processed products are based on available farm ingredients, grown without pesticides, prioritizing respect for the environment, conservation of native forests and river springs. The commercialization of the production takes place through meals served at the lodge and camping, through the direct sale of jams, tamarind paste and liqueurs, breads, pasta and cheese in the store located in the farm, and also through deliveries, once a week, at home in neighbouring cities.

BOX 3

Source: http://www.mrizizanave.al/ Fernandes et al. (2016)

and supermarkets. Customers adopting this method also decide the quantity, variety and quality of the products and are sure they bring home healthy, seasonal food. In addition, PYO is relevant for consumers' education, as they can learn on the field about the various stages of agricultural production and seasonality, which most people are nowadays unfamiliar with.

Besides selling fresh agricultural products, additional direct marketing opportunities for producers might come from services linked to farm products, such as tasting and meals provision. One of the most widespread example is agritourism, which entails, in its strict sense, the introduction of hospitality and catering activities on the farm, besides the normal agricultural production. In a broader meaning, agritourism allows to provide for a vast range of services, from camping to food and wine trails, to labour experiences at the farm.

Argan oil consortium Vitargan promoting its products in a mall in Casablanca, Morocco

FARMERS' MARKET (LATVIA)

Straupe Farmers' Market is located in Straupe, a rural village (1500 inhabitants) in central Latvia, about 60 kilometres far from the capital. It is an open-air farmers' market, organized twice per month. The market was launched by a group of local activists that decided to provide an alternative space for both local producers and consumers. The activists involved farmers and the local municipality, with the main aim of better valuing local producers and local food. Most sellers are local and regional small-medium farmers and artisanal producers. In addition, local dwellers are allowed to sell their own surplus and picked wild or natural products (mushrooms, berries, flowers). Some local or regional food companies take also part in the market. Consumers are local and regional people, as well as passers-by, as the market is located on a major road.

Straupe market regulations, developed at local level by the market organisers, state that agricultural and artisanal products allowed are those 'honestly' produced and processed by farmers themselves and which are closely linked to local food or local traditions. Space limitations at the market result in preference being given to products of local origin, organic, natural, traditional, environmentally friendly, and which contribute to the diversity of supply at the market. Artisanal non-food products have to be related to local food or traditions.

The market includes about 70 regular vendors. Most vendors come from the local territory /region (up to 30 km), but also mobile producers coming from faraway (more than 100 km) and practicing various modes of direct selling are allowed.

The SFSC was initiated by local people as a reaction to the specific situation of local food production, distribution and consumption. The main aim of the initiators was to reduce food miles, intended as geographical but also social distance between local producers and consumers. Specific rules for the market have been developed by its initiators/organizers (abiding by national laws and regulations) and they take the relevant decisions. Local origin is stressed in the market's regulations and compliance with quality standard is ensured, as producers-vendors have to fulfil food production and distribution regulations in order to be accepted in the market. Formal rules are therefore in place besides relations of trust. However, products are not all 100% local (presumably, there are not yet enough local producers to sell their produce on the market), but all the products are at least traditional Latvian or artisanal products.

BOX 4

Source: Šumane (2014) and https://www.entergauja.com/en/things-to-do/enter-culture/straupe-farmers-market

2.2. Farmers' markets

Farmers markets are generally considered as recurrent markets at fixed locations where farm products are sold directly by farmers themselves (Brown, 2001) with a common organization and under a same image and/or some shared rules. This is what differentiates farmers' market from the simple, spontaneous forms of selling in a route or place, common in many cities.

Farmers' markets have grown in recent years out of the need and will of small producers to find alternative market outlets for their products and give visibility to local agriculture. The most of these markets are held once or twice a week or also once a month, while is quite infrequent to have a daily frequency.

There is a certain degree of variability among farmers' markets, according to the

different actors, interests and purposes. Markets promoted by producers' organizations, for instance, are meant as a point of exchange in both commercial terms and in terms of values, culture, awareness raising, and active citizenship. Small farms have normally a central role, such as individual and family-run ones: in such case, supporting small farming is among the leading principles and aims, as well as the small size a participation requisite.

Besides, there are farmers' markets promoted by public institutions that aim at enhancing local production and local gastronomic traditions and culture. When public actors are involved, farmers' markets represent an instrument for rural development processes or regional marketing strategies, too.

Decisions on access for participants and rules are up to the market promoters – either informally or formally organized within a committee – depending on both the market characterization and the space available. More often, when space is reduced, ensuring continuity of supply and of the relationship between producers and consumers explains the tendency to keep the same producers to take part in the market.

In some cases farmers' markets are identified as organic, biodynamic, conventional (or a mix of the previous) and therefore producers who mean to adhere have to fulfill

FARMERS' MARKETS NETWORKS

Earth Markets are farmers' markets that have been established according to guidelines that follow the Slow Food philosophy. All around the world, 68 Earth Markets are run by local communities, providing a space where producers and consumers meet and healthy, quality food is available at fair prices and produced with environmentally sustainable methods. In addition, Earth Markets allow the preservation of food culture of the local community and contribute to defending biodiversity.

An Earth Market is created when an interested community – producers, local authorities, citizens, Slow Food convivia and other interested parties such as restaurateurs – come together to establish a new place for consumers and food producers to meet. A management committee, with representation from all these groups, is responsible for selecting the producers, promoting the market, and ensuring the guidelines are followed. They are also required to manage the logistical aspects of the market, and to ensure that the environmental impact is minimised: e.g. with waste reduction, biodegradable consumables, recycling, and energy-saving measures. Producers must demonstrate their suitability before they are permitted to sell at Earth Markets. The focus is on small-scale farmers and artisan producers, providing them with an important opportunity in which they do not have to compete with large distribution chains. Small-scale production is also favoured as it often produces high-quality results. Producers are asked to charge a fair price for their work and pledge fair treatment of their employees.

A key requirement is for vendors to attend the market themselves and to only sell products that they have produced themselves. As producers are meeting directly with customers, they must be open and willing to talk about their product and its qualities, the work involved, and how the prices are justified. Producers must come from the local region, within a radius specified for each Earth Market to suit the context.

BOX 5

Source: https://www.fondazioneslowfood.com/en/what-we-do/earth-markets/what-is-an-earth-market/

specific requirements concerning the production method used for agricultural practices. Sometimes they are specialized in some products category (e.g. fruits and vegetables). However, it is more frequent to have a differentiated offer as to be more attractive for consumers.

The organization and development of a farmers' market implies a number of resources and costs. Time is needed for organizing and managing the market, e.g. to find, select and organize producers, to draw-up an organization able to take main decisions, make control on the quality and, sometimes, prices. The use of public spaces often requires paying a fee to the local municipality, also for the provision of some services such as energy and cleaning. Some basic equipment are needed, such as sales banquets, and they can be provided by the organizers. Some promotion and communication could be necessary in order to inform consumers.

Price management is a delicate matter in SFSCs, as principles of fairness, transparency, solidarity are normally asked to be fulfilled. Informal assessments by the market committee and producers' consultations regulate in most cases the price definition.

Moreover, managing rules for market access, and standards of production and sale to be complied, often pertains to non-producers/commercial operators, which might be allowed to participate when promoters aim at expanding the market size and the range of products supplied, but access is commonly restricted to local products, to avoid the risk of compromising the meaning and image of the market.

Farmers markets are also identified depending on the place where they are held and the targeted customers. Most are local, usual customers, even if, depending on the place and season, farmers' markets are also visited by tourists, for instance, when they

Farmers market in Pisa, Italy

LOCAL FOOD SHOP (HUNGARY AND FRANCE)

Hungary

The Szekszard SFSC was developed by a non-profit organisation (Eco-Sensus Ltd) including food producers and experts in the Szekszard wine region. It applies to any local individual farm or enterprise in the area. Main aim of the scheme was to connect local producers and consumers by means of a point of sale and community-based enterprise for local food. In addition, the scheme aimed at gathering and showcasing the variety of local agricultural products of this region, which is already well known for its wine, promoting products such as salami, flours, honey, paprika, sunflower oil, jams and cheese.

The scheme entails a quality assurance mechanism and a brand to promote local food. Requirements and quality criteria are continuously fine-tuned through participatory methods, and include the identification of local producers, as well as social and ecological quality of production and packaging. Local farmers are encouraged to qualify for the food label and are given visibility on a dedicated website.

The scheme has also launched an initiative of regional branding in the community-based local food shop, and applies to all basic and seasonal products of the region. The Szekszard local food label is a registered trademark for all various food types available in the region. This allows local farmers to carry out direct sales of their produce and provides a secure market outlet.

France

Brin d'Herbe is a group of 20 farmers, which for 20 years have been selling "cottage" and "organic" products in two stores on the outskirts of Rennes. Main products are meat (60 % of the turnover), fruit & vegetables, bakery, dairy products, cheeses, eggs, honey, cider. Their market can be quantified as about 1000 consumers per week. The shop opens three days a week. The turnover is 1,5 million Euro per year.

To run the shop, farmers are organized into a specific form of association that allows them to keep their identity and operational autonomy vis a vis consumers, and at the same time to define a common space of coordination. This aspect is also a regulatory requirement, as in this way the shop can be classified as "direct selling" activity.

They hire people to work at the shop, but at least one of the farmers guarantees his/her presence in the shop as well (to improve exchanges with the consumers about the products). They have a labour time bank (linked to the turnover of each producer). The more produce a farmer sells in the shop, the more time he/she should invest into the shop. Every kind of work (communication, repairs, etc.) is valued the same. In general, each of them dedicates one day a week to the shop. Pictures of all associated farmers are displayed in the shops.

Prices are set by each farmers, although there is internal communication about price policies. However, there is not much overlap among farmers with regard to products sold, so in shop competition is avoided.

BOX 6

Source: taken from Galli and Brunori (2013), and https://www.brindherbe35.fr/

are carried out on an ongoing basis and in the city centre. Often, at these markets a wide range of origin foods are available for tourists, whereas farmers' markets targeting local consumers are more oriented to local food provision and daily consumption.

In some cases, farmers' markets are part of a wider network. This implies to comply

BOX SCHEME (SOUTH AFRICA)

Abalimi is a social enterprise, working to empower disadvantaged people in urban areas through ecological urban agriculture. Producers are mainly women, engaged in vegetable gardening in home and community gardens.

A part of the farmers has been involved in the Harvest of Hope, a box-scheme marketing initiative. Abalimi provides inputs such as seeds, seedlings, compost, fertiliser and equipment, paid by farmers through a share deducted from their monthly payment. Although the price that producers get for selling to Harvest of Hope is (often) lower than selling directly to the local community, Harvest of Hope provides, besides a regular market, a secure and upfront source of income. The vegetables price is set according to a comparative analysis of prices at different supermarkets and wholesalers.

Producers sign simple contracts to grow specified crops in a designated size plot for pre-planned yields at pre-determined prices, to be harvested on targeted dates. They do quality control, harvesting, cleaning and bunching of vegetables themselves.

Harvest of Hope picks up the vegetables from the gardens once a week and delivers them to the packing shed, close to Abalimi office and provided with all the equipment needed to process vegetables. Here vegetables are weighed and processed (washed, cut and packaged or bundled) by the staff, which includes Abalimi field staff and several producers on a rotational basis, in order to learn how to run the whole process, from the field to marketing.

Abalimi prepares different types of boxes, delivered to the collection points, most of which are primary schools in the suburbs of Cape Town, but also some institutions and a retail outlet. Schools seem to be the most appreciated distribution places, as customers combine collecting their children with picking up the food box. Consumers are informed by weekly emails and can participate as a volunteer or join a weekly tour to the gardens and the pack shed.

BOX 7

Source: Hoekstra and Small (2010)

with a standard (in terms of common format, internal rules, image, organization) and can allow for easier and costless promotion and communication to consumers, thus incentivizing farmers participation.

2.3. Farmers' shops, box schemes

On-farm selling can evolve also going a bit more "off-farm", which is incorporating some services of proximity to consumers. This is the case of opening shops outside the farm or activating home delivery services.

Farmers' shops are retail outlets directly managed by one or more associated farms, selling produce directly from the farm.

Producers might also engage in box-scheme operations, an additional, alternative distribution channel involving a direct relationship between producers and consumers. A box-scheme entails a subscription by customers (or groups of customers) to the regular (weekly, biweekly, monthly) delivery of a specific quantity of fresh vegetables and fruits, the offering varying according to the season and availability at the farm. Delivery occurs either at the farm or to a collection point or at the doorstep, depending on the case. Many box-schemes offer a range of box sizes and allow the customers to order additional products, such as jams, meat or dairy products, along with the box of vegetables. Commonly, food delivered through box

schemes is seasonal, locally grown and organic or sustainably-produced. Production might also assume ethically relevant connotations, as with the involvement of disadvantaged workers or having the scheme being carried out in socially depressed contexts.

2.4. Consumers-driven initiatives

Solidarity Purchasing Groups and consumers' managed shops

Solidarity-based Purchase Groups (or Solidarity Purchasing Groups - SPG), are groups of consumers who purchase collectively through a direct relationship with producers, according to shared ethical principles (Brunori et al., 2011).

More specifically, an SPG is an informal group, including between 30 and 80 households (Fonte, 2013), although there is a great level of variability both in terms of numbers involved, internal arrangements and development. Typically, when the number of members increases, a new group is organized, often linked to the previous, in order to maintain a limited size that allows for the members to develop personal relationships between them.

The personal experience of the initiators is essential for the development of the initiative: many first groups were formed by spontaneous initiative of individual promoters, generally consumers but also small producers, driven by strong ideological motivations and often belonging to social movements' organizations.

FOOD COOP (ITALY)

The Park Slope Food Coop is a consumers-owned and operated food store, providing an alternative to commercial profit-oriented business. Membership is open to all, and only members may shop at the Food Coop. Members contribute with their own labour: this enables teamwork and trust but also allows to keep prices as low as possible within the context of shared values and principles. Members, in addition, share responsibilities and benefits equally.

As one of the Coop's goals is to provide food to the member-owners that is both low priced and high quality, and low prices come primarily from saving money in the area of payroll expense, every member of the Coop must work at the Coop. The work requirement is 2 hours and 45 minutes once every four weeks. At this rate, every member works 13 times per calendar year. In this way, Food Coop members do about 75% of the work, thereby keeping the payroll, and prices, low. Depending on what one buys, it is possible to make good savings: according to a recent price comparison survey, Coop members save 20-40% off of their weekly grocery bill. All members must, in addition, pay a non-refundable $25.00 fee and contribute a $100.00 investment to the Coop, which will be refunded upon request in case of membership suspension. For members who receive certain kinds of income-based assistance, the joining fee is $5 and the refundable member investment is $10. The Coop accepts Food Stamps coupons.

The Coop carries a wide variety of products (more than 5000 items) to serve a diverse population with a variety of needs. Among its principles, the Food Coop supports non-toxic, sustainable agriculture and aims at avoiding products that depend on labour and environmental exploitation. Therefore, the offer at Park Slope is diverse but with an emphasis on organic, minimally processed and healthful foods.

BOX 8

Source: https://www.foodcoop.com/

Most members are middle class, well-educated people aged between 35 and 50. Main motivations to engage with an SPG include the need and will to engage with responsible consumption practices; awareness about ethical, social and environmental issues related to the agri-food system; support to small farmers and small-scale agriculture; the purchase and consumption of healthy, often organic, products at affordable prices.

Normally, producers are selected by the members according to shared principles, including:

- the farm's size: these are generally small or very small producers, in most cases professional/direct farmers, sometimes also hobby and part-time farmers;
- distance of the farm, which should preferably be located nearby or within the same region;
- direct relationship and knowledge, so that the future relationship is based on reputation and consolidated trust;
- the farmers' attitude to transparency and knowledge sharing, and to providing clear information on the production process and products characteristics;
- environmental performance, which should entail production methods with low environmental impact – organic or biodynamic farming – either with or without formal certification, when the relationship is strongly based on trust;

COMMUNITY SUPPORTED AGRICULTURE (USA)

The basic idea of CSA farming at Paululs Mt.Airy Orchards (USA) is a cooperative relationship between the farmer and his customers. Based on an annual commitment to each other, community members provide a pre-season payment to purchase a "share" of the season's harvest. The member receives a weekly box of a wide variety of fresh, in-season fruits and vegetables as well as the possibility of other farm product treats such as our own baked goods throughout the growing season.

A share is a weekly box of local, fresh, sustainable produce that is picked up or delivered each week for 18 weeks (week of May 26th through September 22nd). Shares include a mix of fresh fruits and vegetables and from time to time other treats (for example homemade cider donuts, homemade jam, new recipes to try), reflecting the growing season. The first 2-3 weeks are light because the growing season in PA is just starting but in summer time the shares are "fuller." For example, the very first share might have asparagus, spinach, lettuce, red beets, spring onions and apple cider donuts, and a share a couple weeks later might have more and different items (strawberries, rhubarb, asparagus, bok choy, spinach, and red beets). Then in late summer it might be peaches, apples, sweet corn, tomatoes, cucumbers and cabbage.

Being a CSA member is a season-long commitment to the farm, and in return the farmer provides the customers with the best produce and family farm experience. In addition, the customer will receive 10% off all u-pick (strawberries, blueberries, blackberries, black raspberries, apples, and pumpkins) as well as 2 free Corn Maze/PlayLand tickets per share purchased! The customer also receive an email each Monday letting him know what will be included in that week's share.

Source: taken from https://pauluslmtairyorchards.com/fruitsveggies/csa-program/

BOX 9

- social and ethics principles, concerning for instance labour conditions at the farm;
- price and affordability of the products: even if convenience is not the main aim of an SPG, a fair price for both producers and customers is desirable.

There is variability in the number of producers involved in an SPG, in turn depending on the SPG size: normally, each producer manages one product/one set of products, but a larger SPG might need more producers supplying the same kind of product. These are generally vegetables and fruits, available according to the season, but also bread, flour, cheeses, jams and sauces, olive oil, wine, honey, meat products.

In most cases, an SPG has an autonomous, flexible and informal management of activity. They often rely on previously existing organizations – local charities, cooperatives, other kind of civil society organizations – operating in the social, fair trade, environmental sector. It is quite rare that to find an SPG formally established with a specific legal status.

Consumers' managed shops can be seen as an evolution of the SPG model. In this case, consumers directly set up and manage a shop, normally organized in the form of co-operative, adopting the same principles of SPGs as regards producers' selection, and product quality criteria to be complied when providing the shop. Besides the aim of achieving economic benefits (lower price of food) mainly thanks to the voluntary work of associated consumers, these initiatives are normally inspired by environmental, ethic, and social criteria.

Community Supported Agriculture

Community Supported Agriculture (CSA) is a direct partnership based on the human relationship between people and one or several producers, whereby the risks, responsibilities and rewards of farming are shared, through a long-term, binding agreement (European CSA Declaration[4]). This model of SFSC varies according the countries, and evolved quite a lot along time.

Farmers market in New York, USA

CSA originated in Japan in 1965 when a group of women worried by the food imports increase and consequent reduction of local agriculture joined to buy fresh milk directly from a group of local farms. The "teikei", that is the Japanese for "put the farmer's face on food" is the name given to such agreement, largely associated with small-scale, local, organic farming, and volunteer-based, non-profit partnerships between producers and consumers (Lamine, 2005).

Within a CSA, members (or share-holders) anticipate the costs for cultivation operations and for the farmer's salary and get in return a part of the farm produce when the season comes, besides a sense of satisfaction for taking part in the agricultural work. Sharing the farmers' risks implies for

4 European CSA Declaration. No date. http://www.communitysupportedagriculture.ie/downloadable/European-CSA-Declaration.pdf

the members also sharing the risk of a poor or low-quality harvest due to weather conditions or pests. For farmers, selling directly to members-consumers allows to get a fair price, as well as to save money which would otherwise devote to marketing activities.

2.5. Public (collective) procurement

Public procurement refers to the purchase of goods and services by public institutions (at different levels, from the State up to local municipalities) and state-owned enterprises. For food, it mainly refers to purchase agricultural and food products by schools, hospitals, and in general collective residences such as hospices, prisons, or barracks. Food public procurement, in particular in countries where services provided by the State are important, represents an opportunity in order to ensure high quality of service delivery and safeguard the public interest in terms of both quality of food and positive external effects generated on the environment and local economy. The significant size of public food procurement can be used to drive goals related to improvements of smallholder livelihoods, food security and nutrition.

Public procurement is not per se a form of SFSC. However, it offers interesting opportunities for developing and supporting local agricultural products. Public authorities can use different approaches to provide opportunities for the introduction of locally or regionally sourced produce in their food procurement, depending on structural specificities linked to national laws, maturity of implementation of specific initiatives such as green and sustainable public procurement, and general management and organization of public canteens.

The way the purchase of food in public procurement is organized varies a lot, and strongly affects the real opportunities for

MUNICIPAL CATERING OF KIURUVESI (FINLAND)

The rural town of Kiuruvesi started prioritising the use of local and organic food (LOF) in the late nineties. At the core of the LOF concepts are values such as "local entrepreneurship, local and organic production, quality, traceability, environmentally friendly production, animal welfare and continuous development". A pilot project implementing the LOF concept in school catering started in the year 2000. Municipality has moved the focus from decentralised and price-based selection of suppliers to competitive bidding where other criteria than price are used in order to select the supplier.

The tendering procedure is generally based on the careful selection of the food items to be requested, which is in turn based on the careful planning of menus. Such planning allows for the inclusion of local and organic produce in school food without compromising the taste and the nutritional characteristics of meals. Furthermore, it allows for containing costs.

The tendering procedure is centred on the implementation of a pre-tendering dialogue between potential suppliers and the municipal catering service. The dialogue is aimed at matching kitchens' needs with the capacity supply of interested producers and processors. It allows kitchens' staff to explain what they need and to get feedback from suppliers on the characteristics of their products. This interaction often leads to the co-development of products and of recipes based on local foodstuff.

BOX 10

Source: European Committe of the Regions (2018)

developing SFSCs. In fact, food purchase may be undertaken by a central unit, or by individual schools, or even by individual kitchens within a centrally finalized framework agreement with a wholesaler (European Committee of the Region, 2018). The size of the purchase lots (which must be homogeneous and regular in deliveries), and the level of incorporated services of processing and packaging (for example, purchase of whole fresh fruit or already prepared and packaged fruit salad), such as the need for some formal certification that guarantees specific quality attributes of the local food provided (such as organic) strongly affect the possibility for single farmers to directly satisfy the demand that comes from the public administration. Moreover, the variety of food asked by purchasers strongly affects the possibility to introduce local food directly provided by farmers. For a public purchaser it is normally simpler and less costly to buy food from big trade providers.

Public food procurement can provide an accessible market channel to smallholder farmers by reducing risks and uncertainties involved in market participation. However, local farmers, and in particular smaller ones, can encounter many difficulties in complying with formal and substantial requirements of public procurement. Often some degree of coordination is needed in order to overcome such problems, for example developing producers' associations or cooperatives.

Generally speaking, introducing sustainable local food into public canteens is a quite complex process. That is why it is political commitment that should drive this kind of initiatives. Changes needed are both cultural (e.g. eating habits as healthier food may have a different taste) and structural (e.g. creation of small-scale pre-processing facilities), and therefore it may take time to be implemented. The sequential introduction of quality requirements in procurements seems to be the most successful approach, as it gives caterers and suppliers, and supply chains in general, time to adjust (European Committee of the Region, 2018).

2.6. Hotels, Restaurants, Catering (HoReCa)

SFSCs are of great interest for "professional consumers", too. Indeed, local retailers, restaurants, hotels, markets, street food vendors, may source directly from local farmers and sell to local consumers.

Local provisioning is often preferred by professional consumers in case of fresh products, and also for logistical aspects (reduction of transport costs, day-by-day delivery, less need of storage), and in case when direct relations with producers allows for a better control of the quality of raw material and production process used, and the establishment of relations of trust.

Not always the information about the local provenience of food is actually transmitted to final consumers. Anyway, given the rising attention paid by consumers to provenience and authenticity of food, communication about the "localness" of food is more and more frequent and used, as it may represent a factor of attraction, distinction, and therefore commercial success.

Local retailers may benefit from having local food (especially origin food) in their assortments, especially when mainly addressing to external consumers (tourists), given the importance of food souvenirs in the touristic market. Even local consumers may be attracted by local food in shops, both for daily consumption and for special occasions.

Restaurants may promote local food to attract customers, emphasizing both the local provenience and typicalness of food prepared, together with local recipes and tools.

2.7. The many dimensions of SFSCs initiatives

The analysis of the most widespread SFSCs initiatives showed the high degree of diversity between each other, although all united by the aim to restoring a direct connection between producers and consumers and, to a more or less extent, proposing an alternative way to industrialized and global food supply-chains.
As attempt to distinguish between the

multifaceted world of SFSCs initiatives, some basic criteria can be useful.

Number of intermediate steps

The first criterion involves the two main keys used to define them (see Section 1.2): the number of intermediate steps and the geographical distance between production and consumption.

According to the number of intermediate steps, a distinction can be made between Direct-to-consumers SFSCs and Intermediate SFSCs. Direct-to-consumers SFSCs include supply-chains in which food producers, normally farmers, meet consumers directly, such as in on-farm sales, farmers' markets, farmers' shops, and road stands. Intermediate SFSCs normally involve only one intermediary who supply consumers directly, and can include small retailers, public procurement, restaurants, hotels, specialized gourmet shops, often dealing with local food (see Section 1.3) to gain competitive advantage in front of supermarket chains and globalized marketing channels.

According to the geographical distance between production and consumption, the most common criterion used is related to the number of miles between the place of production and the place of purchase, although the maximum number allowed defining the initiative as SFSC can vary according product category, regional product availability in the region, socio-cultural context, and political aims.

Individually-managed vs collectively-managed SFSCs

SFSCs initiatives can be managed on an individual or collective basis (figure 2.1).

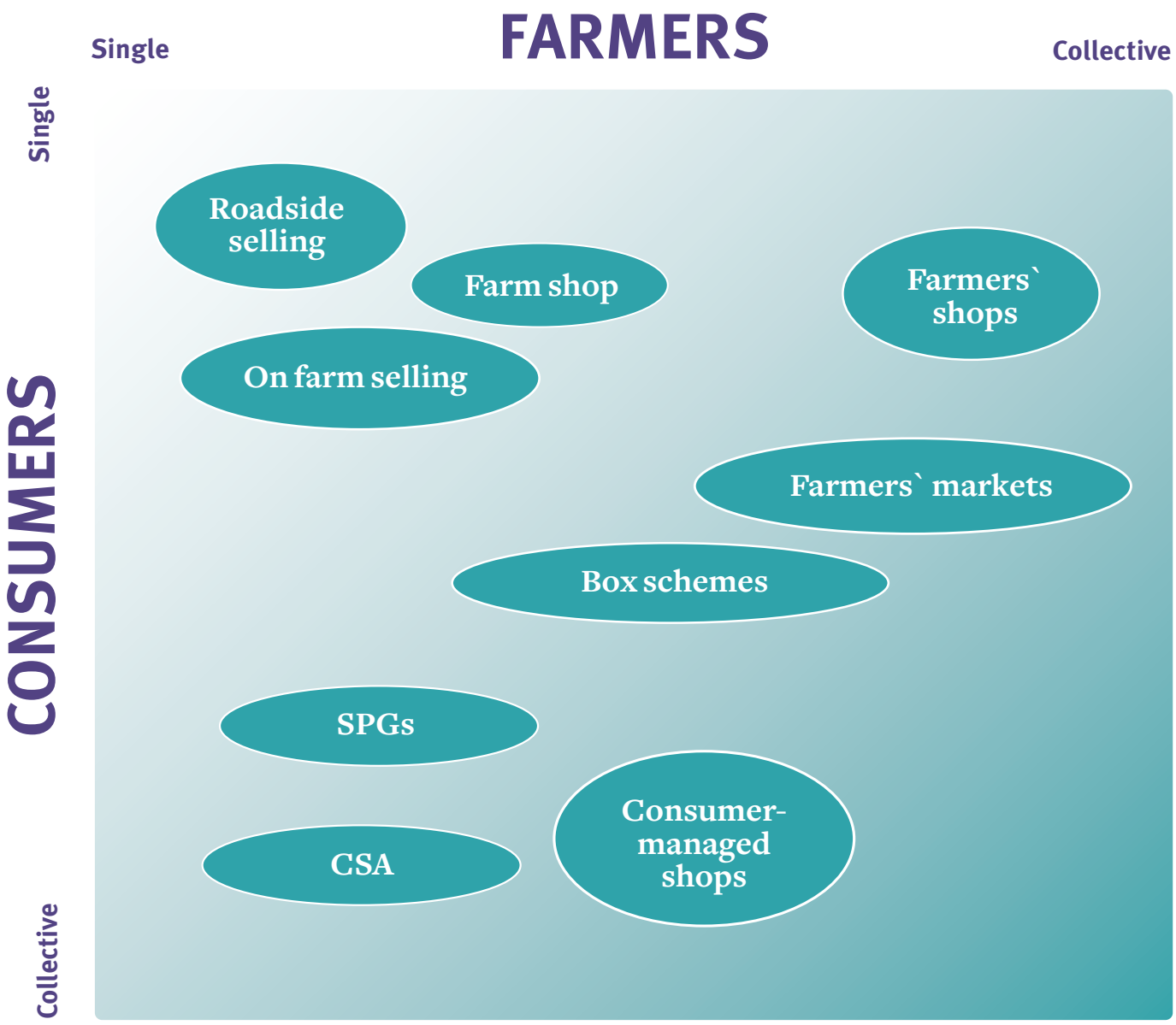
Individual initiatives, managed by single actors (a farmer, a consumer), normally do not require any pre-existing organization or agreement with other producers, or

Cambodian Farm to consumer delivery

between producers and consumers. Single actors are completely free to take decisions to exchange. A farmer can decide whether to sell his products on-farm, or to deliver his products directly to the house of final consumers without having to submitting his decisions to other actors, as well as consumers may decide to buy from a farmers' market without asking the permission to anybody.

Collective initiatives do require some degree of (formal or informal) organization, between producers, or between consumers, or both, and therefore some forms of interactions between actors before the exchange is made. Therefore, in collective initiatives some decision have to be taken jointly between a community of producers and/or consumers regarding the "rules of the game" and their management and control. Rules can cover a number of decision spheres, depending on the specific features of the initiative (Kebir and Torre, 2013).

Fig. 2.1 – Map of SFSCs initiatives according to individual or collective logic



Consumer-driven, farmer-driven, public-driven

Another important criterion to distinguish SFSCs initiatives regards the category of actors that activates and leads the initiative. While traditional forms of SFSCs have been activated mainly by farmers on an individual or collective basis (on-farm selling, roadside selling, farmers' markets and farmers' shops, etc.), many SFSCs initiatives of the "new generation" have been rather prompted and organized by groups of consumers, asking for fresher and safer products and willing to oppose to the dominant industrialized model of food production (Solidarity purchasing groups, community-supported agriculture, box schemes, etc.). In this framework, intermediate actors of the food supply-chains (retailers, restaurants) have been playing a relevant and growing role in fostering the shortening of the chains, in order to meet new consumers' expectation and attitudes.

An important role has been played by the public sector, both at national level, and at more local level. Indeed, in many countries public institutions have promoted (with special normative frameworks and/or financial support) the birth of these initiatives, often together with farmers' associations and more in general with representatives of actors' categories, up to directly activate SFSCs initiatives, such as in the case of public procurement.

3. Display the potential of SFSCs

3.1. Short food supply-chains: a win-win game?

The interest that both producers and consumers place on the various forms of SFSCs depends on their expectations about the effects deriving from: the elimination, or containment, of commercial intermediation and of dominant positions within the supply chains; the reduction of distance between production and consumption; the opportunity of a better coordination between the two extremes of the supply chain.

Both producers and consumers expect economic benefits, in terms of price advantages or more generally of better value for money. In fact, the consumer can normally benefit from lower purchase prices (reduced payments for long-distance transport and/or commercial intermediation), and the farmer can obtain more profitable prices than those on the intermediate markets. The expected benefits are many, and - as we have seen – go far the economic sphere, being related to the environmental and social ones, too.

SFSCs are therefore perceived as a win-win solution for both producers and consumers, capable of benefiting both the extremes of the food supply-chain thanks to new configurations of the link between production and consumption. At the same time, SFSCs are also perceived as a tool capable of satisfying the needs of society as a whole, which can enjoy a series of environmental and social externalities.

In the real world, things are not always so simple. Alongside the benefits, new costs and potential problems may arise, too. Objectives pursued by SFSCs are often complex, and sometimes in contrast with each other, or in any case do not appear fully compatible. Moreover, actors are different, and each of them pursues his own specific objectives, sometimes not coinciding or also conflicting.

Subsections 3.2, 3.3 and 3.4 are devoted to analysing the potential benefits for

producers, consumers and society as a whole, and identifying problems that can hinder potential benefits.

3.2. Expected benefits for producers

Producers expect many benefits, connected to different orders of motivations pushing them to activate SFSCs (economic, social, and environmental). Achieving these benefits asks for a more or less deep change in entrepreneurial attitude, organization, and investments in the farm, and consequently is hampered by a variety of factors.

Farmers are strongly affected by shifting from long, industrialized marketing channels to SFSCs. Farms are no longer focused only on obtaining scale economies on a few number of processes, but more and more oriented towards a complexification of production, processing, packaging, distribution and communication activities, attentive to complex quality attributes, often linked to sustainability issues.

The following table summarizes the main potential benefits expected by producers, and potential problems they may have to front. Typologies and magnitude of benefits and problems obviously depend on the specific typology of SFSC initiative, and on characteristics of both the farmer and the farm. However, identifying these categories helps in building a well-grounded framework for both the farmer using SFSCs and the policy maker interested in developing these kind of initiatives.

Farmers make use of SFSCs in many ways, placing very different expectations on it.

At one extreme, farmers see SFSCs as

Main producers' expected benefits and potential problems

EXPECTED BENEFITS	POTENTIAL PROBLEMS
- Prices increase at farm gate - Value added increase - Easier market access, especially for small producers - Better communication and information to consumers - Differentiation of marketing channels and higher resilience - More stable commercial relations - Opportunity to develop cooperation with other farmers - Opportunity to develop cooperation with consumers - Allow for a strategic re-orientation of the whole farm	- New functions to be performed and related increase in costs - Increase in workforce - Need for investments in equipment for processing, transportation, and selling - Need for new competencies and skills - Need for diversification of production - Opportunities restricted to areas close to the city and/or touristic market - Increasing competition in SFSC market segment

one among other opportunities for marketing their products, able to allow for gaining better product prices and value added, for an easier or more stable access to market, and for escaping from the higher bargaining power of processing firms and commercial intermediaries. In this case, SFSC is perceived as just an alternative to other selling techniques, a tool allowing the farmer for an optimization of his marketing strategy. Economic expectations are the driving ones, not only related to price increase but in general to the contribution direct selling can give to different dimensions of profitability, for example in terms of risk diversification, access to new markets (geographical or typological), better use of familiar workforce, economic resilience.

At the opposite extreme, SFSC can represent one of the pivots of a new strategic orientation of the whole farm towards the multifunctional model of agriculture (Renting et al., 2009). In these cases, SFSC is part of a deep transformation of the farm, and its relevance goes far beyond just selling the product in a new way, being rather linked for example to the activation of processing or on-farm hospitality activities or other services, the adoption of new more environmental or social-friendly production techniques. SFSC often also allows re-establishing horizontal relationships in the territory with other farmers, and other actors.

Moreover, in a number of cases, the search for a multifunctional model represent for the farmer an ethical need (more social responsibility towards the environment and society) or a way to improve his personal wellbeing.

In order to assess the effectiveness of SFSC, farmers have to take in account the multiple benefits obtainable through participation in SFSC initiatives, not entirely reducible in monetary terms. They include:

- the increased selling price of products, that may result from a greater balance in bargaining power and also from solidarity mechanisms of consumers toward producers;
- the possibility to increasing the value added through processing and preparation of the product and services associated with the product by the farmer himself;
- the possibility of activating a direct relationship with consumers, thus being able to better acquire and transmit information to consumers, monitor the market, differentiate the product and obtain customer loyalty;
- the possibility of socialisation and regaining pride and satisfaction in his own work.

Farmers market in Munich, Germany

However, as seen in Section 2, these potential benefits correspond to many potential problems, arising mainly from the need to reorganize farming activity, logistic, and even reconsider the whole firm strategy, with a consequent need for new skills, resources, and investments.

Using SFSC for a farmer is normally more resource-consuming and costly than the industrialized and long one, due to the need

to reincorporate and manage some activities that had been abandoned, or completely new. While in some cases this is a desired result by the famer, allowing for a better employment of family labour (in particular women and young people), in other cases this could be an obstacle to overcome.

The extent and type of benefits and costs enjoyed by individual farms vary not only according to the characteristics of the SFSC initiative and the intensity of the relationship with consumers, but also according to the characteristics of the farm itself, especially size and availability of labour. Small farmers have frequent difficulties in accessing SFSCs, due to inefficiencies of scale, difficulties in investment and lack of manpower required to manage the relationship with the consumer and/or activities of labour-intensive manufacturing and processing. Thus, "small is beautiful" does not always apply. Indeed, there is a notable development of numerous medium to large-sized farms that develop business projects focused on SFSCs or even set up business for this sole purpose.

Agricultural product promotion to hotels and restaurants, Tanzania

3.3. Expected benefits for consumers

The rapid growth and diversification of SFSCs initiatives has brought to the increase of the number of consumers who source food from short-chains, and a parallel diversification of the typology (revenue, age, education) and their motivations (Alkon, 2008; Kneafsey et al., 2008; McGarry, Spittler, and Ahern, 2005; Weatherell, Tregear, and Allinson, 2003). Also very varied is the relevance SFSC purchasing plays in their consumption model, and the type of products they are searching for.

Consumers have been at the basis of SFSCs growth (Rossi, Favilli, and Brunori, 2013; Woods, 2008). Dissatisfaction and critics about industrialized agri-food system were the springs motivating the reaction of some groups of consumers, who aimed at searching for alternatives to the industrialized and standardized food in order to get more fresh and nutritious food. At the same time, consumers' interest was prompted by solidarity towards farmers, thrown into crisis by the growing power of processing firms and big retailers, and towards the environment, menaced by industrialized production processes. The ultimate goal of a number of consumers has been that of trying to get the steer of changes in agri-food system, turning from a passive role, where they were subject to the decisions taken by other (big) players of the agri-food system, to a proactive one (or at least a participative role), where they could (co-)decide the rules of the game: how and by whom food should be produced and distributed, how much the food should cost, and generally speaking what should be done to orient the agri-food system towards criteria of economic, social, and environmental sustainability.

In some cases and countries, consumers are older, higher educated and higher income, while in other cases young people and low income consumers may source from SFSCs,

Typologies of consumers addressing SFSC and their motivations

PRODUCT / CONSUMER	LOCAL FOOD	ORIGIN PRODUCT
LOCAL CONSUMERS	daily consumption - Routine shopping behavior - Community development and solidarity - Rural development - Environment - Freshness/nutrition	traditions and cultural identity - Keeping traditions and culture - Special events - Edonistic consumption - Community development and solidarity
EXTERNAL CONSUMERS	daily consumption - Freshness - Nutrition	touristic attraction - Local culture and habits - Knowledge and curiosity - Souvenirs

thus depicting a fragmented scenario of motivations, behaviours, and attitudes towards local food.

A useful way to classify consumers' motivations identifies two main dimensions. The first dimension affects the degree of "localness" consumers search in SFSCs, which may vary from a product that is just produced "locally" (short physical distance between production and consumption), to a product with special territorial character (origin product) (see Section 2). According to this distinction, local food when identified as just produced close to the marketplace can be placed at one extreme, while local food as origin food at the other. The second dimension is related to the type of consumers, whether they are "local"/indigenous or "non local"/tourists. The following table point out the variety of motivations consumers may have when participating and buying within SFSC initiatives.

Local consumers buy local food for daily consumption, mostly oriented to get fresh and nutritious products, reduce environmental impact due to transport, as well as to support their own community and rural development. When buying origin products, local consumers are more interested in having special identity products and keep their own consumption traditions, often part of their normal consumption but also for special events.

For many local consumers SFSF is just one of the many ways to purchase the food they need. They resort to SFSCs occasionally, when they find an economic advantage or practicality of purchase, or sometimes just for special types of food (for example local origin products) and/

Main consumers' expected benefits and potential problems

EXPECTED BENEFITS	POTENTIAL PROBLEMS
- More affordable prices for food - Easier access to quality products: fresh, local, "authentic", origin food - Buy products traceable from a known producer - Reconnect food to the farming and processing process - Easier access to healthier food options - Pursue of social and ethical objectives - Support local economy	- More time needed for food purchase - New function to be performed in purchase and in preparing food - New competences to be acquired in food preparation - Increase in the "total cost" of food (that includes costs related to the whole buying and consumption process) - Scarce information on where to buy - More accessible for affluent and well-educated people

or occasions. At the opposite end, for a number of consumers shifting to SFSC is connected to a profound change in both purchasing and consumption patterns, with greater attention to the nutritional properties and provenience of food, to production methods used, up to a change in the importance of the various categories of food in their diet. Purchasing food on SFSCs became a routine in particular when it is interpreted as a way to demonstrate an ideological opposition to the limits of dominant system of food production, processing and distribution.

External consumers are normally less interested in local food as such, although sometimes showing interest to support local producers and to get fresh products, while are much more interested in origin food to get closer to local culture and traditions, to experiment new food, and to have souvenirs to get back home.

Consumers are pushed to SFSC by different typologies of motivations; as a consequence, benefits they can expect are quite differentiated and related not only to the economic sphere, in terms of lower prices or of a better price/quality ratio. The following table summarizes in the left side the main potential benefits expected by consumers, while in the right side some potential problems are listed.

Potential problems are quite similar than for producers. Consumers have to reorganize their buying process, partly abandoning their routines, spend more time in both purchasing and preparing food. Diseconomies can emerge. More time and personal resources – depending on the type of SFSC – can also be needed for interact with producers and/or among consumers.

Consumer satisfaction for SFSCs depends to a great extent on transforming the time spent buying and preparing food from a wasted time into an investment in terms of social relationships and responsibility.

Main expected benefits and potential problems for society as whole

EXPECTED BENEFITS	POTENTIAL PROBLEMS
- Reduction of transport - Reduction of pollution (fuel, plastic ...) - Reduction of plastic packaging - Less food waste - Improved diets: easier access to fresh food, more variety in diet, less preservatives, ... - Preserving peri-urban agriculture - Preserving small farming / artisanal food processing - Preservation of traditional products - Preservation of products based on local agro-biodiversity - Strengthening social ties - Increasing awareness about food system problems - Working opportunities for women - Explore niches of innovation	- Increase in the "real cost" of food reduction in efficiency of resource allocation - Transportation inefficiencies - Increased risks for food safety (less controls)

3.4. Expected benefits for society

Society as a whole can benefit from SFSCs thanks to the positive effects (or the containment of negative ones generated by the standard food provisioning system) generated on collective well-being, in particular on the following aspects: environment, health, social ties, and ethics. This is a very relevant issue in the light of the increasing awareness of the negative effects of industrialised food system on many social and environmental issues such as agrobiodiversity protection, traditions and culture preservation, social relations.

The following table summarizes the main expected benefits and some potential problems for society as a whole.

Expected benefits on the environment are related on the reduction of distance between places of production and consumption. Consumption of products sourced at long (or short) distances, in fact, raises transportation, refrigeration, packaging and storage issues.

Apart from distance, there are other claims on potential positive effects of SFSC on the environment. Long-distance, mass distribution channels are responsible – together with urbanization and changes in the composition of diets – of the impressive amount

of food waste generated in our societies (World Resources Institute, 2013). They are also considered a cause of biodiversity loss (Godfray et al. 2010), as actors in the long and mass chains are encouraged to cultivate, sell and consume only a few species and varieties. Globalized food chains also alters the concept of seasonality, which is largely recognized as a key component of sustainable and healthy diets. Another claim relates to the limited information regarding the environmental impact of the processes of production and distribution consumers usually receive buying a globalized product (Goodman, 2002; Kastner et al., 2011), while SFSC can improve consumer knowledge and responsibility. SFSC can also help in preserving a sustainable peri-urban agriculture, with positive effects on the preservation of the quality of the environment around big cities (avoiding land abandonment, preserving uncovered soil, ...).

SFSF impacts on health are not deeply explored. In general terms, 'localness' of food is connected to 'healthiness' by association with freshness, seasonality and affordability. As SFSCs are connected to local agriculture, products marketed through them need less preservatives and are produced accordingly to local season. Relevant exceptions are mainly in urban agriculture, where cultivation in practiced in heated or cooled greenhouses. Accessibility and affordability of local food purchased through SFSCs can reduce the cost of food and hence access for lower income consumers to healthier food – such as the fresh one, mainly in big urban areas.

SFSCs can also impact on a broad range of social issues, going beyond the idea of "plenty of cheap and safe food" definition of effective value chains. They are expected to strengthen social capital, by improving relationships between producers and consumers, and promoting a more participated food governance. They are also expected to pursue social justice, equality and inclusion, being more accessible to smallholders and small processors and giving opportunities to buy quality food to lower income consumers. SFSC can give a contribution to the preservation of local identities and lifestyles and to food security in urban areas. They also can allow small farmers to access markets, especially when big retailers and powerful wholesalers dominate "normal" food chains.

SFSC also create interesting opportunities for valorising the work and enhance the role and self-esteem of women in the farm, often more inclined to managing customer relations.

SFSCs can also affect some relevant ethical profiles. The need to include ethical dimensions is becoming more important as demonstrated by the huge rising of ethical standards and labelling initiatives aiming at communicating attempts made by firms to ameliorate the negative externalities of food provisioning (Goodman et al., 2010). However, assess ethical performance of a food chain is a very difficult matter. Fair trade, attention paid to the support to local economy and animal welfare are among the ethical aspects to which consumers pay more attention and to which SFSC can positively contribute. While in long, globalised food supply chains ethical performance is mostly communicated in formal terms, via labels, standards and certifications, in SFSC direct interaction is the main tool used.

Empirical evidence shows some difficulties in SFSC contribution to territorial rebalancing of agriculture, in fact access SFSC is more difficult for farmers and areas farthest away from cities or touristic areas, where demand from consumers is stronger. So the potential of re-territorialisation of short chain can result fairly small.

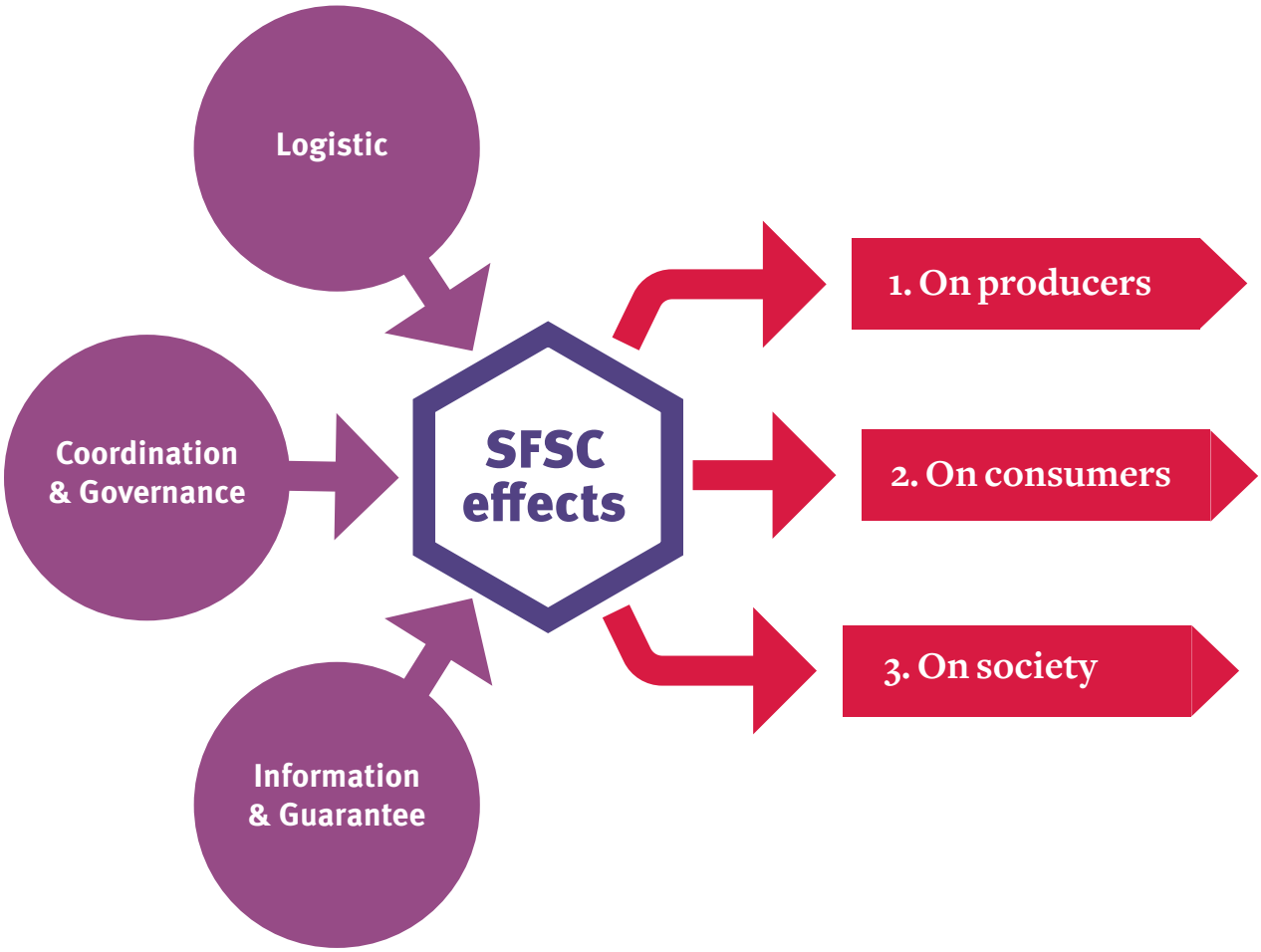
4. Effectiveness of Short Food Supply-Chains

4.1. Key-functions in SFSC and effectiveness

The achievement of the benefits from SFSCs expected by producers, consumers and society as a whole is not automatic and, as mentioned in the previous sections, a plurality of factors can hinder it. Assessing the whole performance of supply chain is a very complex matter, considering the plurality of dimensions and the diversity of actors involved. Proposing a methodology for assessing the effects of SFSC is out of the scope of this paper. However, it is important a reflection about the determinants of SFSCs effectiveness, taking into account the multiplicity of aspects involved.

Cutting the number of steps in the supply-chains, reducing geographical distance travelled by products, reorganizing producers-consumers interaction putting them into

Fig. 4.1 – Functions of SFSC and their effects



more direct contact, are distinctive features of SFSCs. Effective management of the supply-chain is an objective of the SFSC model, too, but this is done according to different logics and configurations as compared to long industrialized chains. The shortening of the supply chain - whatever the way it is carried out - entails a new way to organize and manage a number of functions performed by the actors at the different levels of the chain (Belletti and Marescotti, 2012 and 2013). Among these, the following three categories of functions are particularly importance:

- coordination and governance function, expressed by the capacity SFSCs have to design and control relevant aspects of the transactions and interactions between different actors;
- logistic function, expressed by the capacity SFSCs have to physically connect producers and consumers in an effective way, reducing distribution costs without generating a parallel increase in agricultural production costs;
- information function, related to the capacity SFSCs have to convey complex quality attributes to which consumers are paying increasing attention.

The effectiveness in performing these three functions is the key factor for determining the balance between benefits and costs of SFSCs for producers, consumers and society as a whole, as discussed in Section 3 (Figure 4.1), also compared to long supply-chains. Moreover, considering the great variety and complexity of SFSC typologies (Section 2), it is important in order to compare the different types of SFSFs initiatives, too.

In the next sections we discuss coordination and governance, logistical and information functions in SFSCs. We also provide some examples of tools and good practices.

4.2. Coordination and governance functions, and the issue of price regulation and risk sharing

As pointed out in the examples in Section 2, there is a great variety among SFSCs as regards the modalities different actors coordinate their production and exchange activities. In many cases, the nature of coordination and governance in SFSCs described in Section 2 is quite different from the conventional one, considering both horizontal relations (among producers and/or among buyers/consumers) and vertical relations (between farmers and customers).

Coordination in long and industrialized agri-food supply-chains is based on impersonal relations between producers and consumers, managed with the intervention of intermediaries mainly through spot market mechanisms[5].

A certain degree of horizontal coordination is often a key-element in many typologies of SFSCs. Consumers can join to collectively organize their purchases. Solidarity Purchasing Groups and CSA initiatives represent the most evident examples. In a number of cases, producers too collaborate to activate SFSC initiatives. This happens for example quite often for farmers markets and farmers' shops.

As far as vertical coordination is concerned, relationships linking producers to consumers are stronger in SFSCs, especially in "alternative" ones (see Section 1.2). When sourcing via SFSCs, consumers normally pay higher attention to what they buy, how it is produced, and by whom it has been produced, therefore asking more information up to direct and/or co-decide with the farmer the rules of production and the quality food must have. Often consumers show the will to socialize with producers, sharing values and ideas besides basic information on the product. Producers, too, aim at gathering more information on

5 This means that producers follow their own individual production plans determining volume and type of output to be produced and marketed, without previous interactions with customers, whose identity is unknown and not relevant for the seller, nor with other producers.

consumers' behaviours and habits within SFSCs, get opinions and suggestions directly from the final users, and may aim at involving consumers in their production decisions (what, when, and how to produce, for example, as happens in Solidarity Purchasing Groups), and sometimes to share the risk (as in CSA initiatives).

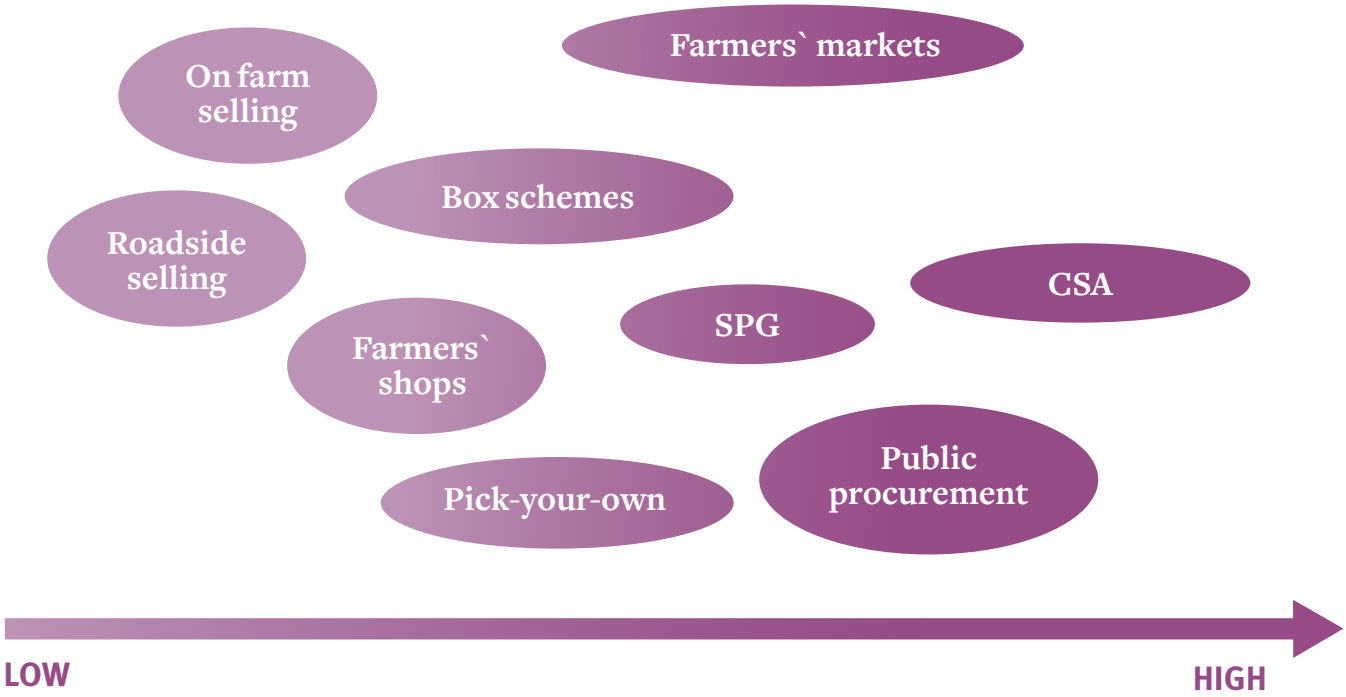
Figure 4.2 outlines the range of SFSCs initiatives concerning the degree of interdependence between producers and consumers in decision-making. Traditional forms of selling, although classifiable as SFSCs, normally ask for a low degree of interdependence. A number of SFSC initiatives (the ones at the right extreme of the scheme) are characterized by a certain degree of direct and long-standing interaction and interdependence between producers and consumers, who agree on some relevant aspects of what and how to produce, and share social, cultural, environmental, and moral values (such as in Solidarity Purchasing Groups and CSA).

The intervention of the State, aimed at prompting the provision of some public goods (environment protection, social relations, healthy food provision, etc.), characterizes a number of SFSC initiatives, and can affect their governance system.

Considering the general aims of SFSC initiatives, one of most important issues is the possibility to implement governance of prices and risk sharing in order to attain a fair and transparent vertical distribution of the value added created in the value-chain among the different actors involved in it.

In the agri-food system, farmers, consumers and public institutions are paying growing attention to fairness and transparency in price setting, market access for smallholders, imperfections in competition, and abuses resulting from dominant positions, which are reflected in the mechanisms of value distribution along the supply-chains. SFSCs are expected to lead to economic benefits at both ends of the chain: if, on the one hand,

Fig. 4.2 – Typology of SFSCs initiatives according to the interdependence between producers and consumers in taking decisions



Source: elaboration from Belletti and Marescotti (2012)

consumers may benefit from lower purchase prices, on the other hand producers can obtain higher prices than those resulting from placement on intermediate markets (wholesale, retail). These effects are partly related on how logistical and informational functions are performed in the SFSC (see next sub-sections).

However, proponents of SFSC initiatives often urge the transition from a logic of "high" prices (for producers) or "low" prices (for consumers), to a logic of "right" price (Belletti et al., 2010), which can balance the needs of both producers and consumers. To this aim in many typologies of SFSC price is somehow negotiated and agreed by both farmers and consumers, mainly when interaction is stronger and more continuous in time, putting attention not simply on the absolute level of price but on the quality/price ratio, and also considering the value of external effects arising from the performance of production processes (positive and negative externalities).

PRICE MANAGEMENT AT FARMERS' MARKET (ITALY)

In Italy, farmers' market rapid spread has been accompanied by a growing attention paid on economic effects on both farmers and consumers. Expectations from farmers' markets development were focused on the increase of price for farmers and price reduction for consumers that could be gained by cutting the intermediary steps. As a consequence, many farmers' markets put some mechanisms for controlling and managing price levels of products exchanged. A survey carried out in Tuscany demonstrated a great variety of approach as regards price regulation:

- Monitoring and price comparison with information to consumers, based on price monitoring on other distribution channels in the same area, which are then compared to the prices applied in the farmers' market. The reference is often to local retail prices, supplemented by information on prices available on a national scale;
- Adjustment of the maximum price level by comparison with other channels, providing for the setting of maximum price ceilings calculated on the basis of prices recorded in other markets, in some cases at national level, in others at local level (local wholesale market, retail, direct on-farm sales);
- Calculation of production costs. This approach provides for the reconstruction of reference costs relating to single products and territorial areas, with the aim of having a "standard!" value that can be useful both as a tool of moral suasion towards producers and as a means of justifying higher prices than those found on other channels;
- The reference to "non-price" conventions. In these cases, the focus is on the interaction around the meanings attributed to production and consumption rather than on price. Producers and consumers are motivated by specific values and can develop a common vision, which goes beyond the satisfaction of quality organoleptic and nutritional value of products, economic convenience, etc.), making it possible to find consistency also with respect to public objectives (social and environmental justice, redistributive equity).

BOX 11

Source: Belletti et al. (2010)

Other specific ways of governing value distribution along the chain, also taking in account risk sharing, is the one of Solidarity Purchasing Groups and Community supported agriculture. Within these SFSCs, long-term collaborations develop between producers and consumers, allowing for the development of a mutual trust that permits to manage the phenomena of opportunism and free-riding on completely different bases with respect to the standard value chains.

4.3. Logistic functions, and the issue of food hubs

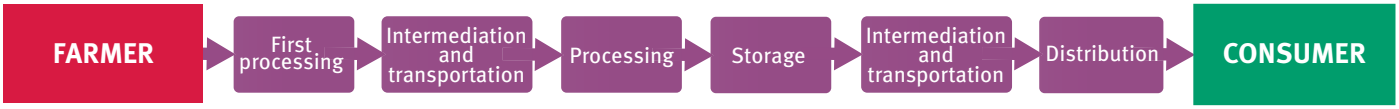
Effectiveness in logistics consists in the ability to reduce distribution costs without generating corresponding higher costs borne by farmers and consumers, and thus to increase the benefits for actors operating at the two extremes of supply chains.

Logistics encompasses a number of activities, from order processing to warehousing, from storage to transportation and packaging. The number and complexity of these functions have grown with the increase of producers-consumers distance, changes in consumers' shopping habits and consumption needs. In long food-chains, a number of specialized firms operating along the supply-chain performs them, while in the short ones intermediate actors are eliminated or greatly reduced in number.

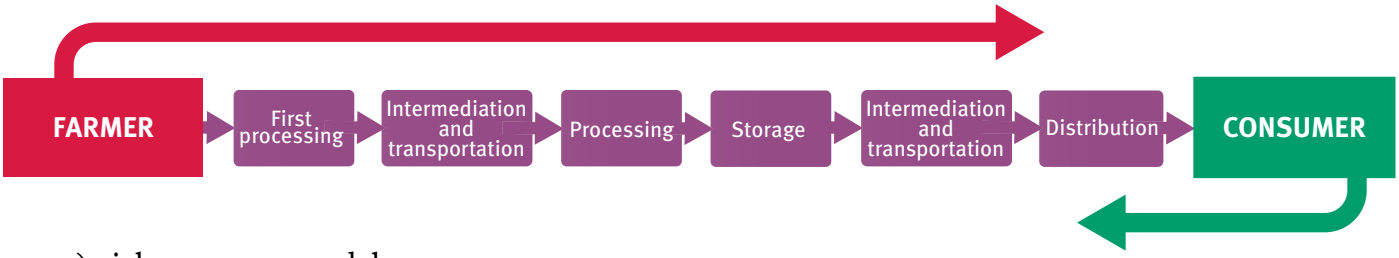
However, the elimination of some types of intermediate actors does not automatically lead to the elimination of the need to perform the relative functions, and indeed some of them still must be carried out. Rather, it is a matter of selecting and re-distributing functions among different actors of the agrifood system. SFSCs eliminate certain types of

Fig. 4.3 – Functions in agrifood chains

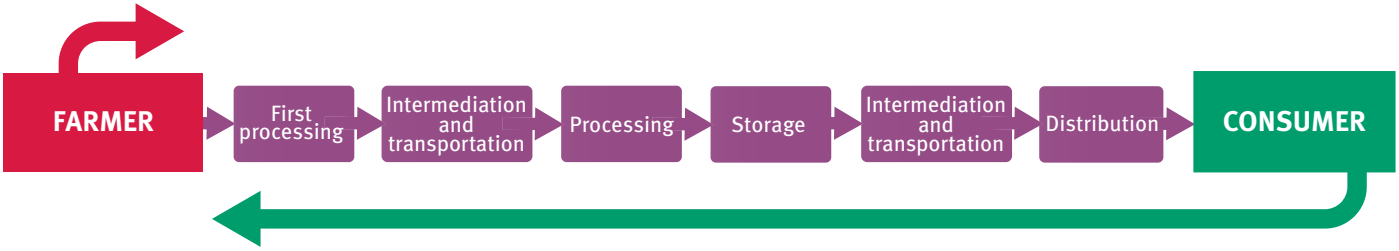
a) general representation



b) farmers` market model



c) pick-your-own model



players (such as international traders, food processing firms, large-scale retailers), to the advantage of others who must bear the burden, or who knowingly cut out the service offered by a particular function (for example, non-seasonal availability provided by cold storage and/or purchasing in different parts of the world) (King, 2010).

The shift from long and standard production-distribution-consumption systems to SFSC requires, therefore, both a removal and a reallocation of functions performed by actors expelled from the supply-chain, which must at least in part be assumed by actors at the extremes of the same chain, that is farmers and consumers (see Figure 4.3).

Therefore, the issue regarding effectiveness in logistics should be analysed by understanding which logics and consequent approaches are more effective in providing these functions, and whether they affect the organisation of production and trade inside the chain.

A first approach is based on the search for economies of scale, related to creating large volumes in the same technical unit of production that specialises in performing a single function; this allows a stronger economic advantage where fixed costs are very high compared to total costs. This is the approach normally used in industrialized food systems by large firms.

An alternative approach focuses on scope economies, achievable using a given production factor in several different but complementary economic activities. For example, a farmer can use his own labour and of his family members not only for cultivating the land, but also for processing, selecting, or selling products, as to achieve a better level of utilisation of the factor. This method asks for higher diversification of tasks, and it is common on SFSCs.

Both methods can be efficient for farmers, depending on the type of farm, on structural characteristics and on specific aims the farmer pursue. Their effectiveness depends by a large amount also on the cost/opportunity ratio of resources they have to use for managing the new functions, in particular of family labour, which depends on contingent situation of each farm and family. In general terms, there is no a better solution fitting for all farmers.

However, the more SFSC becomes part of the strategic orientation for the farmer, the more he must bear costs required by the transition to a new organisation model, which may ask for investment in both tangible and intangible assets, such as costs for acquiring the needed knowledge, building or adapting farm facilities and equipment, reorganising business operations. For farmers, adopting a SFSC orientation normally implies (Brunori et al., 2010):

- increasing the number of production processes and products produced, to meet consumers' expectation;
- re-incorporating phases and activities previously abandoned: transport, conservation, physical presence on the markets for sale;
- activating food processing, to make the product more conservable or increase the added value;
- diversify towards non-traditional activities but useful as a sales support (e.g. educational activities, farm holidays) or as tools for benefiting of a new multifunctional orientation.

It is evident that efficiency losses due to de-specialization and lower achievable economies of scale are possible. However, the extent and type of costs incurred by farmers vary depending on the characteristics of the SFSC initiative and the intensity of the relationship with consumers.

Consumers too incur new costs, related to change in their purchasing behaviour and routines, and to the need to perform some functions which on other channels are normally delegated to specialize firms (eg. clean-up tasks or preparation of vegetables) (Briamonte and Giuca, 2010; Brunori et al., 2012).

Therefore, the redistribution of functions between farmers and consumers is not always more efficient in SFSCs than the conventional ones. Depending on the specific initiative, the way it is organized, and the individual characteristics of actors involved, costs savings due to economies of scope do not always compensate the increase in costs due to the loss in terms of scale economies.

To obviate these problems responses can be worked out in SFSCs at the organisational level, abandoning an individualistic approach and developing collective initiatives based on sharing some phases and tasks of distribution and logistics in order to achieve a more rational organisation of certain activities affected by constraints of minimum scale.

Food hubs are an emerging organizational arrangement that aims at facilitating the interaction between production and consumption through SFSCs. According to the USDA's Regional Food Hub Resource Guide (Barham et al., 2012), a regional food hub is a "business or organization that actively manages the aggregation, distribution, and marketing of course-identified food products primarily from local and regional producers to strengthen their ability to satisfy wholesale, retail, and institutional demand.". Food hubs operate in various ways on local markets between those who produce food and those who buy it, in order to facilitate the connections between local producers and consumers (and in particular, professional buyers) and reduce costs for logistics. Fragmentation of the agricultural supply is one of the major problems in SFSC initiatives. To solve it, food hubs normally aim at aggregating the supply of numerous small producers as to facilitate the purchase by professional buyers, such as public and private canteens (schools, hospitals, company canteens), local restaurants, small local processing companies, and so on. Moreover, food hubs represent an important source of information about quantities and qualities respectively supplied and

Stand of the Delicious Montenegro Brand at a local fair, Montenegro

COMMERCIAL FOOD-HUBS (HUNGARY)

Foodhub.hu is a commercial food-hub based in Budapest (Hungary). Its mission is to solve inefficiencies in the local food distribution by providing the tools and knowledge to develop a resilient local food economy. They support small-scale producers with demand-driven advisory services while providing chefs and consumers with on-demand access to quality products. They facilitate relationships between food system actors to build a community that fosters transparency and fair business.

Foodhub.hu reconnects small-scale farmers directly with businesses looking for local, high-quality fresh ingredients, be they restaurants, farmer's markets or food retailers. They are serving 31 farmers and 22 restaurants.

The aim of Foofhub.hu is to empower farmers by creating a market for their high-quality, local and sustainably grown produce; the gastronomy and food retail sector by offering nutritious and healthy food for their customers; consumers by giving them a platform to make conscious food choices.

They provide the following services:

For producers: transportation, processing, packaging and labelling, marketing and sales activities

For food businesses: platform of hand-picked producers and quality products, order and delivery system. Currently, they supply restaurants twice a week with local produce and soon will extend the portfolio to deliver up to 500 boxes to chilled pickup stations for endconsumers.

Cash & Carry: Foodhub.hu offers cash & carry concept with fresh products for restaurants each Thursday. In the meantime, for households, there is an on-line sale with direct delivery by Foodhub's truck.

Education: Furthermore, there is a close collaboration between schools "Grow & Harvest your own potatoes" and farms.

Food Waste: Foodhub.hu is engaged in food waste reduction. All food leftovers are given to the Hungarian Foodbank.

Café, Co-Working Office: Additionally, FoodHub runs an Urban Food Coworking & Café, which is a quiet place to work in the city for producers and for gastro-bloggers.

BOX 12

Source: Foodhub.hu

demanded on the local market, thus facilitating supply programming by farmers, meeting sellers and buyers, and reducing losses along the supply chain.

These two functions (supply concentration and information provision) can be performed by both a physical and virtual food hub. The former delivers agricultural products thanks to facilities where customers go to buy them, the latter uses online platforms that provide the possibility for farmers and buyers to insert respectively their availability and needs, in the short and eventually in the medium run, but products do not physically pass from the warehouse of the food hub. In practice there are number of food hubs that combine the two typologies.

Food hubs, in particular the physical ones, can provide for a lot of other services, such as cold rooms, packaging and first processing facilities, and quality control and assurance services. As they might serve different purposes and adapt to local resources and needs, such as provision of incubation units for new entrepreneurs, or space for community education and action, they are also called "multifunctional food hubs" (Guzman and Reynolds, 2019).

A regional food hub can (Barham et al., 2012, p. 4):

- carry out or coordinate the aggregation, distribution, and marketing of primarily locally/regionally produced foods from multiple producers to multiple markets;
- consider producers as valued business partners instead of interchangeable suppliers, and is committed to buying from small to mid-sized local producers whenever possible;
- work closely with producers, particularly small-scale operations, to ensure they can meet buyer requirements by either providing technical assistance or finding partners that can provide this technical assistance;
- use product differentiation strategies to ensure that producers get a good price for their products. Examples of product differentiation strategies include identity preservation (knowing who produced it and where it comes from), group branding, specialty product attributes (such as heirloom or unusual varieties), and sustainable production practices (such as certified organic, minimum pesticides, or "naturally" grown or raised).

A great variety characterizes not only the typologies, but also the motivations underlying the creation of food hubs. Although similar to some enterprises that perform the same functions in the industrialized food chains, food hubs are different from these. In many cases, they are deliberately set up to be "alternative", based on shared ethical principles, such as enable small-scale producers to access value chains and larger markets and more regular delivery, in order to ensure their financial security. A focus can be devoted to fair trade, local origin of food, food waste reduction, environmental care, minimal processing of food, health-related considerations. In some cases, food hubs may wish to collect and distribute food for charitable purposes (for example via food banks).

Food hubs are established, developed, and supported by different types of organizations, such as voluntary sector organisations, food partnerships and other strategic food initiatives and coops, with the involvement of both producers and buyers. In other cases, food hubs are managed by for-profit commercial companies that operate however oriented by the values mentioned above.

4.4. Information and guarantee functions, and the issue of common labelling

Effectiveness in information function is related to conveying information about quality attributes of the product along the chain, from producers to consumers.

FARMERS OWNED FOOD-HUBS (USA)

Appalachian Sustainable Development is a non-profit in Abingdon, USA. In 1999, ASD established Appalachian Harvest (AH), a network of approximately 50 certified-organic family farmers producing organic vegetables and free-range eggs in Southwest Virginia and Northeast Tennessee. Appalachian Harvest grades, washes, labels, and packages products in its packaging and grading facility and distributes them to 30 food brokers and supermarkets, representing more than 900 individual supermarkets. ASD also offers training and technical assistance by organizing hands-on trainings for producers and by coordinating a peer network for producers to learn from one another. Annual sales are approximately $500,000 (2012).

Source: Barahm et al. (2012)

BOX 13

Transmission of information becomes more relevant in relation to food products with more complex quality attributes, such as the "credence" ones, which are those quality attributes not verifiable by the consumer even after repeated consumption. These attributes include, for example, the origin of the product, the effects on specific environmental aspects, the use of particular growing or processing techniques and ingredients, the respect for workers' rights. Information asymmetry occurs frequently on these quality attributes, in particular in long chains where many actors from many places in the world intervene in the production and distribution process. Therefore, the market often fails to provide correct and complete information, thus leading to possible market failures. This asks for some mechanisms of assurances, such as third-party certifications, which however can be complex to manage and costly (especially for smallholders), generating adverse selection effects and excluding some categories of producers who, by their very nature, cannot adapt to these schemes and afford the necessary investments.

In general, information efficiency of SFSCs is positively related to the intensity of coordination and interdependence of decisions between producers and consumers. SFSCs initiatives - thanks to the more direct and strict interaction between producers and consumers - can better convey complex quality attributes relating to both the production process and the product itself in a more effective and/or less expensive way. Especially in the typologies where a greater collaboration between producers and consumers allows developing personal trust in relationships, SFSCs are suitable tools to make the exchange of products with special quality attributes easier, allowing both market access for small farmers and access to "good, clean and fair" food by consumers at a more affordable price. This also enhances the diversity of food, and strengthens social and environmental externalities linked to the production and exchange processes.

However, a regulatory measure may be appropriate in order to monitor problematic aspects related to lack of transparency or to unfair internal competition (such as use of non-local ingredients in traditional recipes, sale of non-local products as local, declaration of non-existent characteristics related to the environmental or social sustainability of production processes). Regulatory measures can be created and managed by producers and/or consumers who launched the SFSC initiative, or by public bodies, such as in the case of initiatives which benefit from public support. Rules normally manage both actors' participation/exclusion and more practical functioning aspects of the initiative.

Information is often conveyed by collective branding, especially focused on emphasising localness of food and other specific quality characteristics of the product. Collective branding implies to define what information have to be communicated through the brand (common rules), build collective initiatives to support the brand on the market, and set-up some form of guarantee of the "content" of the brand.

Three main issues normally arises:

- Why and how to set rules about "true" local food
- How to signal the local origin of food on the market
- How to guarantee purchasers on the local origin of food in an effective way.

As we have seen in Section 1, local food is not just a matter of provenance, but it may also involve the link to local specific resources (e.g. local agrobiodiversity) and methods of production (can a GM tomato grown close to the place of consumption following ultra-modern techniques be considered as "local tomato"?). Rules play three many functions, that is: 1) defining a shared concept of local food, both for producers and consumers; 2) managing unfair competition: avoiding free-riding between producers inside the local system; 3) communicating clear quality

characteristics to consumers. Rules-setting process is of paramount importance. Indeed, participative techniques can help producers in clarifying what has to be defined and labelled as "local", which in some cases may imply to modify accordingly their production practices, and help them to fully understand and share the meaning of local. The role of public actors is often key in supporting and enabling rules-setting processes.

Local origin of food can be signalled in many ways, also considering the legal tools available in a specific context, and setting-up and management costs. Branding farmers' markets, developing collective trademarks on basket of local foods, or branding restaurants which buy from local producers are just among the possible ways.

More or less formal guarantee systems may be needed to make a brand and, more in general, communication effective. The guarantee system should take into account the characteristics and requirements of each marketing channel. Besides the more formal third-party certification systems, in SFSCs initiatives there are emerging tools involving producers and consumers in guaranteeing "true" local food, such as participatory guarantee systems able to enhance the proximity between producers and consumers at lower costs.

SFSC LABELLING IN LOCAL RESTAURANTS (ITALY)

Tourism can offer very interesting opportunities for valorising local products. However, restaurants very often don't have the incentive to really use local ingredients in their recipes, included the traditional ones. Labelling restaurants engaged in purchasing local and origin products can give e relevant contribution.

Vetrina Toscana (Regione Toscana, Italy) is a project of Regione Toscana and Tuscany's Regional Chamber of Commerce aiming at promoting restaurants and producers which make use of Tuscan agrifood products. The mission is to strengthening the position and competitiveness of local small farmers and microbusinesses in the fields of food commerce and catering, valorising the identity of tourist destinations by means of agricultural products.

To take part in the project, restaurants, grocers and producers sign a manifesto which contains product specifications. Today, more than 1000 restaurants, 300 speciality grocers and 150 producers take part to this initiative.

Vetrina Toscana organizes initiatives throughout Tuscany, involving restaurants and suppliers in a scheme that valorizes origin products, cultural establishments (museums, music festivals, artistic heritage) and artisanal crafts. Apart from events aimed at tourists, there are also masterclasses, workshops and seminars organised for professionals involved in restaurants, in order to deepening knowledge and making professional contacts.

Vetrina Toscana develops a communication strategy based on the website www.vetrina.toscana.it and on a calendar of events, social media, a dedicated app, newletters and invitations. Vetrina Toscana is strongly integrated with the Regione Toscana's tourism portal (visittuscany.com). This allows restaurants, shops and producers who have signed up to interact with the region's digital ecosystem, helping to combine the opportunities in enogastronomy with those in tourism. Restaurants taking part to the initiative expose a window sticker in order to communicate to consumers the specificity of their offer.

Source: https://www.vetrina.toscana.it/en/the-project/

BOX 14

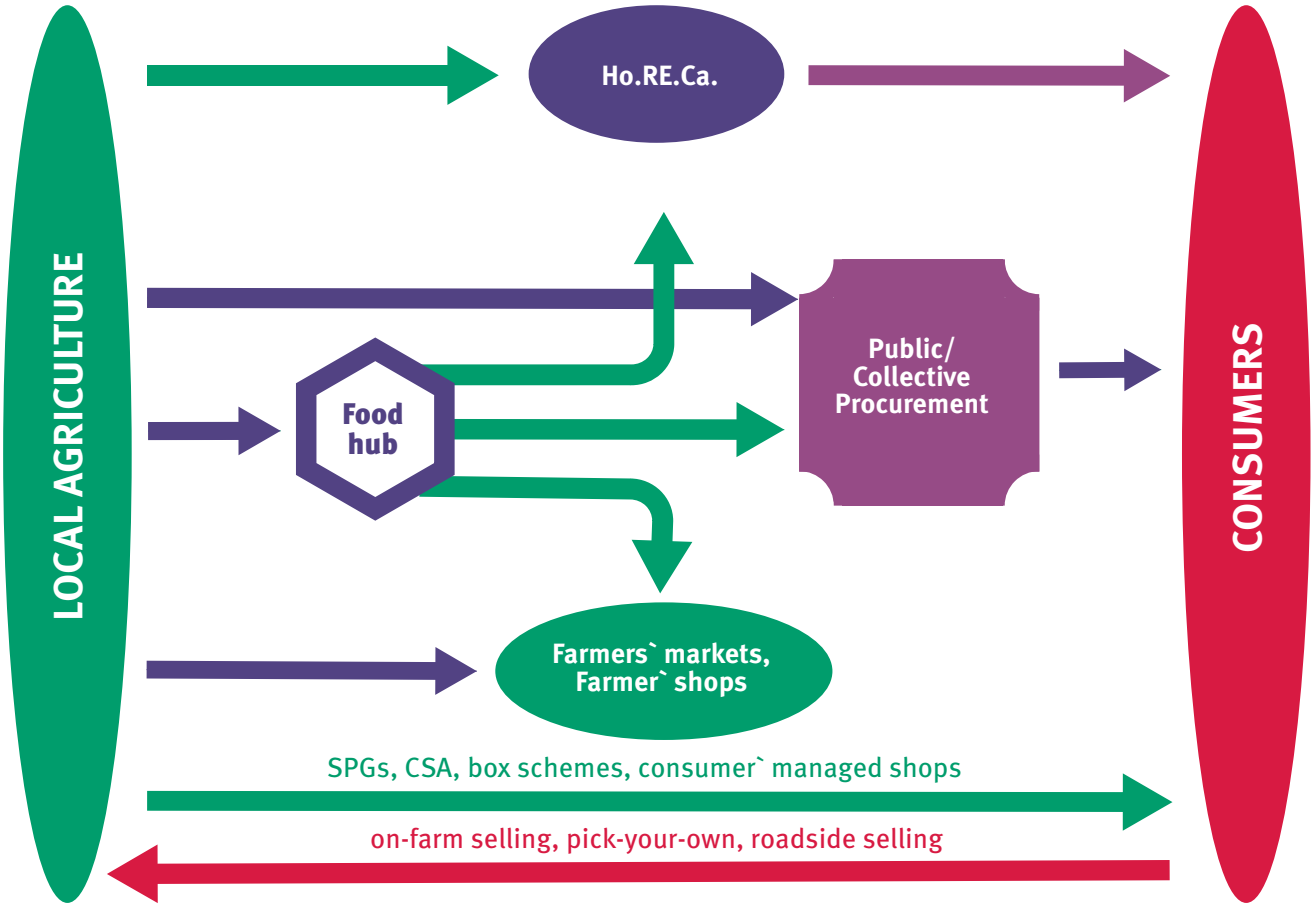
5. The way forward. Some reflections for action

Short food supply chains showed up as a new model of organization in the agribusiness that seek to merge economic principles with social and environmental issues. Indeed, SFSCs initiatives display high potential to reconnect farmers to consumers, and exert benefits for both sides of the market.

From an economic point of view, SFSCs initiatives may bring benefits to farmers, increasing their value added and business stability, especially for smaller and poorer ones, which are facing problems to access markets on long and globalized chains at fair conditions. Consumers too may benefit from participating to SFSCs initiatives, as they can often buy fresher and more diversified products at lower prices, with potential positive consequences on their health.

But the merits of SFSCs go well beyond the pure economic sphere. Indeed, both social and environmental positive effects may be achieved, and from many points of view. Producers can communicate directly to consumers and vice versa, easing the flow of information about the product, the process, and the participants, strengthening social ties,

Fig.5.1 – A map of SFSCs typologies



solidarity, and awareness. The reduction of the distance between the place of production and the place of consumption may contribute to lower environmental impact due to emissions. The higher diversity of products supplied within these initiatives may also contribute to improve agro-biodiversity.

In short, ethical values are often the core of SFSCs initiatives, representing an alternative to long chains..

However, SFSC world is very complex and differentiated. This document has shown different modalities and typologies of SFSC initiatives (fig.5.1) that are currently used to achieve these objectives, and provided case-studies and examples.

Indeed, turning potential into practice is not always an easy task, and there are many limits and problems to overcome. Shortage of farmers at local level, low quality and/or availability of products and low diversification of products to supply, insufficient know-how and entrepreneurship, inadequacy of collective organisation, poor equipment and logistical infrastructure, difficulty in communicating the specificities of local products to consumers, are just examples of hindrances that may impede to grasp the opportunities offered by SFSCs initiatives. Farmers' and consumers' collective initiatives, and a certain degree of coordination between producers and consumers, can often overcome these limits and problems.

To synthesize, especially when launching a collective SFSC initiative aiming at promoting local agriculture, a careful planning should be done since the beginning, taking into account the objectives the different actors involved aim to achieve. The main steps and areas of intervention for launching a SFSC initiative may be summarized as follows:

UNDERSTANDING AND TARGETING

The first step is clearly identifying the supply-chains and territories where the SFSC initiative has to be set up. Once identified, an analysis of local food system characteristics and evolution should be provided, to better focusing and targeting the initiative.

- Identification of the most promising local supply chains
- Understanding local food system characteristics and dynamics (market intelligence)
- Defining the specific characteristics of local products to be marketed
- Targeting (market positioning studies)

CHOSING THE RIGHT INITIATIVE(S)

Among the many SFSCs initiatives, which one(s) would fit better to enhance local productions and achieve the stated objectives?

- Identification of the potential initiatives that would fit better among the many available
- Analysis of the advantages and disadvantages of each potential initiative in relation to the characteristics of the local food systems

MOBILIZING ACTORS AND COLLECTIVE GOVERNANCE

Most of SFSCs initiatives ask for collective action. Local producers and consumers, at the core of SFSCs, have to be mobilized and organized, and support to existing associations should be provided. Participatory governance mechanisms should be eased, able to include all actors, with special emphasis on micro, small and medium enterprises, local producers associations, supply-chains actors. External actors (both private and public) should be included as to guarantee technical and financial assistance, visibility, and support.

- Mobilizing producers and/or consumers
- Setting-up collective organization and governance
- Building networks with external actors
- Getting human and financial resources
- Asking for public support and legitimation

SETTING UP HUMAN COMPETENCES AND PHISICAL INFRASTRUCTURE

Addressing SFSC is an innovation involving many aspects for both producers and consumers. Both human competences and physical infrastructure are keys for launching SFSCs initiatives and making them sustainable and self-regenerating. Human capital needs to be qualified and re-oriented to the new tasks asked for these initiatives. Logistic issues are highly important and sensitive for economic sustainability and efficiency, as well as new equipment required to actors for participating.

- Logistic management (food hubs... supply concentration, selection, regularity...)
- Human capital: new skills and know-how (education)
- Upgrading to minimum (i.e. food safety) and quality standards

INFORMING AND PROMOTING

Information and education are normally emphasized in SFSCs initiatives. Information should circulate within producers-consumers networks and in the wider societal private-public network. Promotion should emphasize the merits of the initiatives, also by means of branding and guarantee systems, and enlarging the scope to connect to other local initiatives and capitals.

- Information: Branding, guaranteeing, and promoting
- Networking and integration with local capitals

In this context, governmental and non-governmental organizations can support producers in designing effective SFSC initiatives, helping to overcoming problems and attaining a number of public goals. The potential of SFSC initiatives to reconnect producers and consumers at local level, and involve not just the "productive" part of the food system, but also the social, cultural, environmental, ethic dimensions, may ask the design of a wider local food policy, which aims at integrating and coordinating the different initiatives around food provision.

Promotion of local products at a local fair in Tanzania

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Annex – UNIDO case study

Boosting market access and local development of the fig farmers' community of Djebba, Tunisia

The mountainous village of Djebba is located in the North-West of Tunisia, around 150 kilometers from the capital Tunis, surrounded by ancient roman settlements and beautiful landscapes. Fig production is the main source of revenue of farmers in Djebba. The unique fig variety Bouhouli that has been cultivated for centuries can only be found in this village.

In 2012 the Tunisian Ministry of Agriculture has officially recognized its unique quality attributes by protecting the Djebba fig with a geographical indication (GI). The label stands for authenticity, traditional production practices and common commitment to quality by the local producers. The GI fig is the first fruit in Tunisia that has obtained this origin-linked label. After the law was passed UNIDO has been supporting Djebba farmers to comply with the product specifications of the GI in the framework of the PAMPAT project (French abbreviation: Market access facilitation project for typical agrofood products – Tunisia). UNIDO has also worked with the Tunisian Ministry of Agriculture and the Interprofessional Group of Fruits GIFRUITS to set-up a third-party control system for the GI figs. The figs of Djebba have to pass the yearly audits that are carried out by a Tunisian certification body. In parallel, Djebba farmers have been assisted by UNIDO to set up a local association in 2017 that is in charge by law of the self-control system. The association distributes the GI stickers to the 143 GI farmers in Djebba that have signed the product specifications as per legal requirements and keeps record of all the documentation necessary to ensure traceability from the farm to the market place. In 2019 already 25% of the local production was certified with the GI as informed by the association.

Figs market in Djebba, Tunisia

To convey the quality attributes of the labelled GI figs to the consumers, the PAMPAT project has worked with local producers and the GIFRUITS to set-up a public-private promotion programme. Every year several tasting events are organized in different Tunisian supermarket chains to bring the unique features of the GI fig closer to the clients. Participations of fig producers at regional, national and international trade-fairs represent also an opportunity to inform clients about the specificity of the Djebba fig. Furthermore, cooking events around the GI fig have been organized in collaboration with leading Tunisian gastronomy associations both in the village of Djebba and in the capital Tunis. Famous TV-cooks have created dishes using different ingredients such as fig leaves, fresh figs or fig jam. Over the years targeted media and PR-work around the GI fig has allowed to increase considerably the renown of this flagship product. News

around the famous fig are taken up by all type of communication outlets such as TV, radio, printed press and digital media. Today Tunisian consumers are increasingly aware of the immaterial cultural heritage behind the GI fruit. This special fig is not just a source of pride for the local farmers, but is increasingly considered as a national flagship product. As a result, prices for the fig farmers in Djebba have doubled. During the production season, the GI fruits are sold in different retail chains all over Tunisia and are also exported to the Gulf countries and Canada.

In order to create additional revenues for the inhabitants of Djebba, the PAMPAT project has also supported some local producers' groups to start offering and marketing local products such as sun-dried figs, jams, traditional pastries and essential oils. A cooperative and two rural groupings have been established. These have been assisted to set-up new production facilities that comply with legal requirements and to purchase small equipments and production tools. Furthermore, coaching sessions have been organized to standardize new processing techniques and to organize the production chain. The PAMPAT project has also offered support to create innovative packaging and logistics solutions and to incorporate modern marketing and sales techniques. Trainings on management, strategic planning, accounting and taxation were also organized to ensure the smooth daily working of the new producers' networks. Local products are mainly sold to the end-consumers in regional markets, gourmet shops, online boutiques and supermarkets; the origin of these products is hereby used as the unique selling point. Furthermore, with the support of the PAMPAT project, a producers' cooperative has set-up the first shop for local products in the village of Djebba. The sales point is located close to Djebba's mountain, the main natural site, and within the cooperative's production facilities. Products from Djebba are experiencing a notable success on the local market. Within a couple of years, prices of dried figs have increased by 50%.

The GI Djebba fig has played a core role in making the mountain village increasingly well-known among Tunisians. Between 2015 and 2019 the number of visitors has more than doubled. On the weekends local producers set up sales points close to the main tourist attraction, the Djebba mountain, and offer their products and snacks to the visitors. Furthermore, tourist groups can preorder thematic three courses meals around the local flagship product that are prepared by one of the women producers groups. These activities have allowed farmers' families to increase their income.

Driven by the success, the inhabitants of Djebba are now developing targeted activities to further encourage alternative tourism. For instance, an increasing number of buildings in Djebba are having their doors and windows painted in lila, the colour of the fig, to make the village more attractive for visitors. Furthermore, road signalling around the flagship product is being slowly expanded. The PAMPAT project has partnered up with local authorities and the Tunisian Tourism Board to integrate Djebba in tourist circuits. To this end, discovery "GI fig-tours" for travel agency staff have already been organized. Furthermore, support has been provided to set-up the annual GI Djebba fig festival that will be organized in 2020 for the fourth time.

Moreover, Djebba has recently applied to receive the status of "Globally Important Agricultural Heritage System" (GIAHM) by the UN-Agency FAO. The inhabitants of Djebba wish to continue their efforts of protecting and promoting their traditional farming practices, while on the same time creating new sources of income thanks to the renown of the GI fig.

Video: www.youtube.com/watch?v=PESm6MvcCxg
Website: www.aoc-figuedjebba.com

List of Boxes

BOX1 FARM SHOP (COSTA RICA)
BOX2 PICK-YOUR-OWN (CROATIA AND BRAZIL)
BOX3 AGRITOURISM (ALBANIA AND BRAZIL)
BOX3 FARMERS' MARKET (LATVIA)
BOX4 FARMERS' MARKETS NETWORKS
BOX5 LOCAL FOOD SHOP (HUNGARY AND FRANCE)
BOX6 BOX SCHEME (SOUTH AFRICA)
BOX 7 FOOD COOP (ITALY)
BOX 8 COMMUNITY SUPPORTED AGRICULTURE (USA)
BOX9 MUNICIPAL CATERING OF KIURUVESI (FINLAND)
BOX 10 ZERO KILOMETER RESTAURANT (ITALY)
BOX11 PRICE MANAGEMENT AT FARMERS' MARKET (ITALY)
BOX 12 COMMERCIAL FOOD-HUBS (HUNGARY)
BOX13 FARMERS OWNED FOOD-HUBS (USA)
BOX 14 SFSC LABELLING IN LOCAL RESTAURANTS (ITALY)

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION
Department of Trade, Investment and Innovation (TII)
Vienna International Centre, P.O. Box 300, 1400 Vienna, Austria
E-mail: tii@unido.org, Internet: www.unido.org