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RECEIVED 26 February 2024

ACCEPTED 09 May 2024

PUBLISHED 30 May 2024

CITATION

Sánchez-Hernández JL (2024) Sustainable
food networks, hybridization and values: a
case study in Castilla y León (Spain).
Front. Sustain. Food Syst. 8:1392013.
doi: 10.3389/fsufs.2024.1392013

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Sustainable food networks, hybridization and values: a case study in Castilla y León (Spain)

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Sustainable food networks involve different food supply arrangements which attempt to construct a more sustainable, democratic, and egalitarian food system. Since the concept appeared at the end of the 20th century (labelled as 'alternative food networks'), two approaches have been employed to explore these initiatives. The 'view of differences' emphasizes alternativeness and opposition to the hegemonic food system, governed by large food production and retail firms. The 'view of influences' highlights the complex interactions between the mainstream food system and these more sustainable initiatives. As a result of these interactions, many sustainable food networks apply organizational practices similar to those of mainstream companies: this process has been called 'hybridization'. The present article studies the process of hybridization in the sustainable food networks based in the Spanish provinces of Salamanca and Zamora (region of Castilla y León). An inventory of sustainable food initiatives across the region has been compiled and semi-structured interviews have been conducted with initiatives all along the food value chain. According to qualitative data recorded in the interviews, it is argued that the broad set of hybrid practices embodied in these sustainable food networks are legitimized by the members' values because they contribute to achieving three key objectives: protecting the environment, promoting health, and fostering local development. These three goals frame an 'inward' notion of sustainability rooted on the product itself that is likely to turn these networks less transformative, but also more resilient against the competition of the mainstream companies.

KEYWORDS

sustainable food networks, values, conventionalization, upscaling, hybridization, Castilla y León, Spain

1 Introduction

1.1 Alternative food networks as sustainable arrangements

In a seminal contribution, [Whatmore and Thorne \(1997, p. 287\)](#) coined the term 'alternative food networks' to label those food supply arrangements which attempt to construct a food system that is not (completely) controlled by big corporations which commodify food and operate at long geographic distances. Researchers have considered many arrangements as 'alternative food networks': banks of seeds and disused croplands, urban gardening, agricultural parks, community-supported agriculture, participatory-guarantee systems, box schemes, on-farm shops, small organic/agroecological food processing, collective processing facilities, food hubs, farmers' markets, organic shops, consumer cooperatives, cooperative supermarkets, online sales platforms, responsible public procurement, responsible foodservice outlets, or fair trade.

Since 1997, scholarship on this topic has developed an array of terms to capture the nuances of such initiatives: 'short food supply chains' (Renting et al., 2003, p. 393; Misleh, 2022, p. 1028), 'local food systems' (Brinkley, 2017 p. 314), 'civic food networks' (Renting et al., 2012, p. 292), 'values-based territorial food networks' (Reckinger, 2022, p. 78), 'values-based food chains' (Fleury et al., 2016, p. 36), 'sustainable food supply chains' (Chiffolleau and Dourian, 2020, p. 1), 'agroecology-based territorial agri-food systems' (González de Molina and López García, 2021, p. 1050), or 'local agroecological food systems' (Sanz-Cañada et al., 2023, p. 1147).

All those initiatives have three characteristics in common. First, they promote an environmentally-respectful (or 'more natural') food supply system: organic, agroecological, handcrafted food items usually flow through these networks. Second, they rely on participatory governance practices: assemblies, accountability, task-sharing, shared definitions of quality are deployed for partners to engage in networks' management. Third, they attempt to attain a fairer distribution of revenues among all stakeholders involved; hence, intermediaries are avoided as much as possible to circumvent their bargaining power and to prevent harsh price-setting negotiations.

These three pillars are aligned with the three meanings of sustainability: environmental, social, and economic (European Commission, 2020, p. 14). Therefore, this article proposes 'sustainable food networks' (thereafter, SFNs) as an umbrella term to name those food arrangements. SFNs may be defined as follows: 'arrangements of food production, distribution and consumption (and co-ordination of these processes) whose values and practices promote a food environment respectful of nature and health, establish a more equitable distribution of economic value among the actors involved, reduce the number of intermediaries, usually operate in a frameworks of geographic proximity, and are ruled by participatory, inclusive and democratic decision-making mechanisms based on mutual trust among the people involved'.

SFN stakeholders thus strive to construct a more natural, democratic, and fair food system. According to the literature reviewed, values fundamental to SFNs are environmental respect, community development, inclusive participation, healthcare, and socio-economic justice (Figure 1). Respect for these values is intended to constitute an alternative to the corporate model that currently rules the three stages of the food system, according to Sage (2022, p. 9): food supply, food environment, and consumption practices.

The geographical scope of SFNs, a key topic for policymaking, is more controversial. Fair trade delivers food similar to that produced by SFNs, but over very long distances. The same applies to online sales platforms connecting organic producers and concerned consumers. Nonetheless, most SFNs involve geographic proximity between producers and consumers. Three main factors are at play here. First, mutual trust is more likely to be developed through repeated personal interaction, which constitutes a key factor to attach values other than economic (i.e., price, convenience) to food delivered via SFNs (Thorsøe and Kjeldsen, 2016, p. 162). Second, geographic proximity is also intended to reduce the ecological footprint of food_ the 'food miles' (or 'zero kilometer') argument brings concerned consumers to include distance as a criterion in their purchasing choices (Sanz-Cañada et al., 2023, p. 8). Finally, preference for locally-sourced food becomes an expression of partners' commitment to community development and to building closer links between urban and rural settings (Feagan, 2007, p. 27).

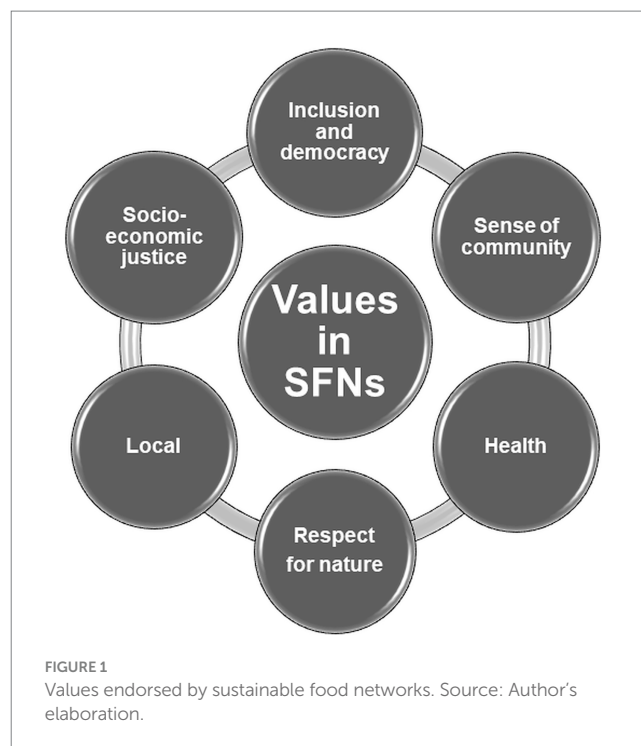


FIGURE 1
Values endorsed by sustainable food networks. Source: Author's elaboration.

But what counts as 'local'? The term sounds polysemic whenever SFN stakeholders qualify the territorial framework for such 'food with values' (Trivette, 2015, p. 479; Kłoczko-Gajewska et al., 2023, p. 5). It often refers to food produced at the administrative level (municipality, province, region) where the SFN is based. But the English language lacks the rich geographical meaning of Latin words such as the French *pays* or the Spanish *comarca*, i.e., geographical areas larger than the municipality but smaller than the province/region, whose environmental conditions ease specialization with specific crops or breeds. In Spain, these "comarcas" are frequently referred to when SFN foodstuffs are qualified as 'local' (González Romero and Cánovas García, 2021, p. 16). Therefore, the traits of SFNs are not restricted to any rigid geographical scope, but may be performed from the municipality to a broader regional or even transregional setting.

1.2 Conventionalization and hybridization in sustainable food networks

The academic literature on the SFN phenomenon presents two main strands. The first one considers SFNs as an alternative to mainstream food value chains. It highlights the differences between 'alternative' and 'conventional' in a dual approach that emphasizes how SFNs define the content, the processes, and the provenance of food (Ilbery and Kneafsey, 1998, p. 333) in ways opposite to the 'big food' system. Hallmarks of this 'view of difference' are Watts et al. (2005), Venn et al. (2006), Rosol (2020), or the collection edited by Maye et al. (2007). Common topics in this literature involve the notion of alterity (Misleh, 2022, p. 1031), internal organization (Duncan and Pascucci, 2017, p. 316; Grivins et al., 2017, p. 343; Poças Ribeiro et al., 2020, p. 491; Zwart and Mathijs, 2020, p. 590), governance procedures (Moragues-Faus, 2017, p. 465, Marovelli, 2019, p. 192), distinctive values and goals

(Calvário and Kallis, 2017, p. 604; Brinkley, 2017, p. 315; Reckinger, 2022, p. 92), interaction with public authorities (Argüelles et al., 2017, p. 37; Doernberg et al., 2019, p. 4), and assessments of their achievements and limitations (Goodman, 2004, p. 7; Forssell and Lankoski, 2015, p. 63; Chiffolleau and Dourian, 2020, p. 12; Zoll et al., 2021, p. 654).

The second strand addresses the interactions between alternative and mainstream food value networks. This ‘view of influences’ is rooted in the debate sparked by Buck et al. (1997) about the ‘conventionalization’ of California’s organic agriculture. These theorists argued that organic agriculture in California was colonized by agribusiness corporations eager to capitalize on new consumer demands for healthy food, thus crowding out small farmers committed to non-capitalist values. Such an argument redefines the critical values embedded in SFNs as mere market opportunities for hegemonic players. A second major contribution was Sonnino and Marsden’s (2006) advocacy for a research agenda focused on the competitive relationship between alternative and conventional food networks. Common topics in this literature revolve around third-party organic certification (Baron and Dimitri, 2019, p. 773; González Azcárate et al., 2022, p. 2), contribution to rural and regional development (Hughes and Isengildina-Massa, 2015, p. 82; Mundler and Laughrea, 2016, p. 218; Lamine et al., 2019, p. 160), commodification of values like ‘local’ or ‘healthy’ (Bowen and Mutersbaugh, 2014, p. 209; Oñederra-Aramendi et al., 2018, p. 31; Macías Vázquez and Morillas Del Moral, 2022, p. 16), or the opportunity that conventionalization provides to reach consumers beyond the alternative niche (Allaire, 2021, p. 225; Enthoven and Van den Broeck, 2021, p. 11).

This ‘view of influences’ is fueled by the upswing of SFNs in advanced economies (Michel-Villarreal et al., 2019, p. 6), and by the upscaling of some SFNs in terms of membership, turnover, and geographical scope (Sánchez-Hernández and Espinosa Seguí, 2020, p. 22). By means of conventionalization, food corporations have partially co-opted the most profitable features of sustainable food, such as organic labelling, local sourcing, animal welfare, or healthier lifestyles. Yet, some SFNs also adopt firm-like management practices: decision boards, legal contracts, tax payment, staff hiring, price bargaining, digital applications, or sophisticated logistics. These practices seem to be the only way to meet their customers’ demands and to compete with ‘sustainable’ food delivered by large corporations (Follett, 2009, p. 38).

Consequently, conventionalization is not limited to the appropriation of SFN attributes by agribusiness firms. Conventionalization also compels SFNs to react to the competition by corporations in the field of organic, local, and healthy food. Since most supermarkets do attach those attributes to their foodstuff, some SFNs are reshaping their operations (assortment, prices, delivery, convenience, logistics) for meeting their transformation goals.

The term ‘hybridization’ has been proposed (Forsell and Lankoski, 2015, p. 71; Argüelles et al., 2017, p. 39; Chiffolleau et al., 2019, p. 189; Misleh, 2022, p. 1029; Tsoulfas et al., 2023, p. 5) to describe this process of SFN adaptation. ‘Hybridization’ encapsulates the empirical observation that SFNs seldom accomplish in full environmental, social, and economic sustainability. Their internal organization often includes a mix of ‘sustainable’ and ‘mainstream’ practices, whose study is endorsed by Grivins et al. (2017, p. 344), Zoll et al. (2021, p. 640) or Zwart and Mathijs (2020, p. 586).

1.3 Research questions

What is the impact of hybridization upon the values, practices, and outcomes of SFNs? This paper adheres to the ‘view of influences’ and addresses this research question. The underlying argument points that hybridization (i) enters SFNs via their day-to-day activities, (ii) is then filtered by SFN partners’ values and motivations, to (iii) finally redefine the achievements of SFNs, because environmental concerns, health promotion, and territorial attachment (the latter loosely defined) are often prioritized at the expense of any broader transformation of the food system.

This is a substantial issue, because food was conceived by SFN pioneers as a political battlefield to achieve social justice, sense of community, and direct democracy (Hall and Mogyoro, 2001, p. 416). In this early conceptualization, environmental sustainability was taken for granted as an underlying value shared by all individuals committed to different SFNs.

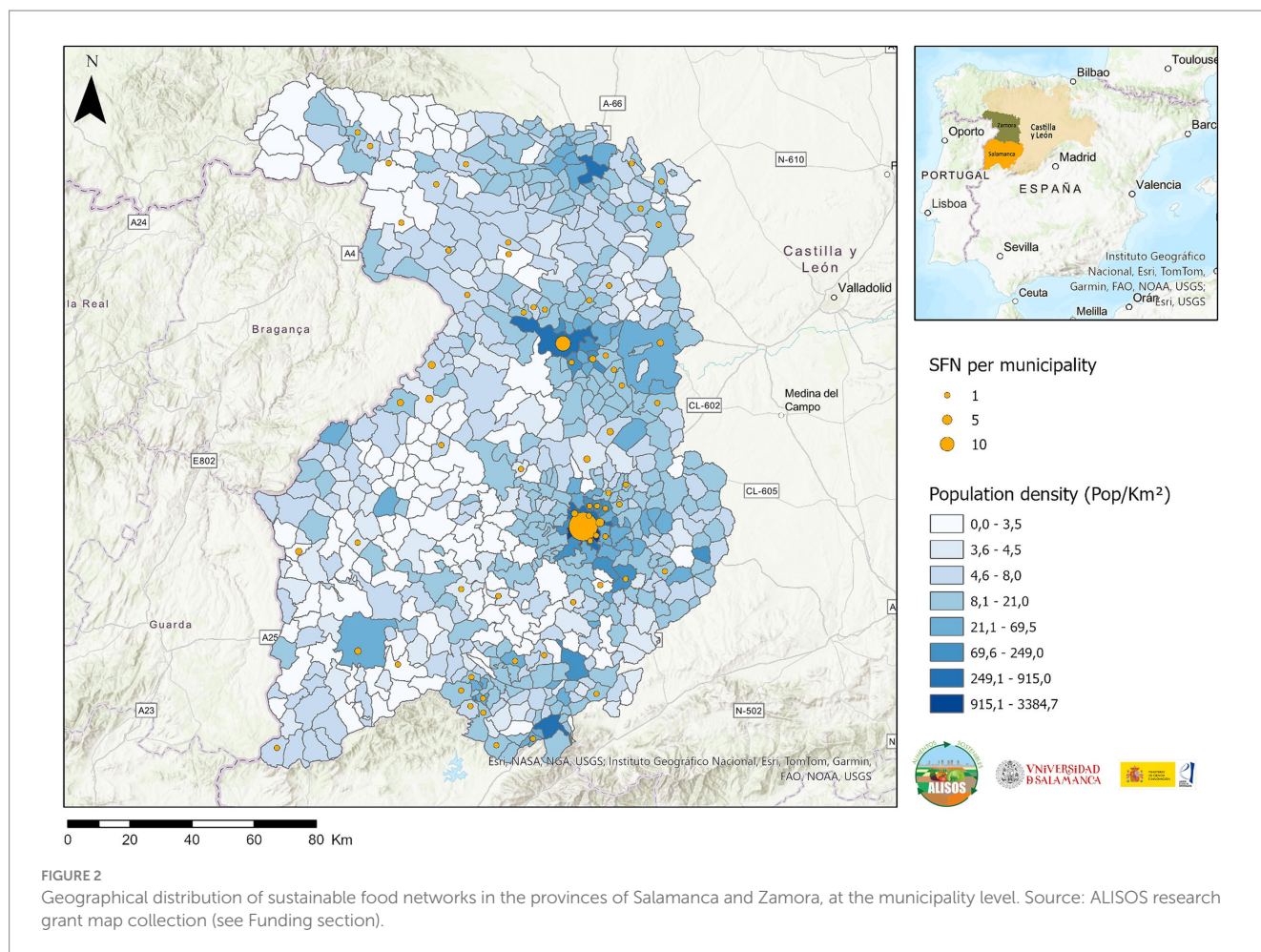
However, due to conventionalization and hybridization, two values have colonized SFNs: the access to healthy food and the support for small local producers. Environmental sustainability maintains its role as a core value and goal. But it is not taken for granted any longer. Rather, environmental commitment must be explicitly displayed, so organic certification becomes a prerequisite for many partners to engage in SFNs.

This argument that hybrid practices are filtered by SFNs’ values to promote environmental protection, health promotion, and territorial commitment, is tested against SFNs based in two Spanish provinces, Zamora and Salamanca, in the region of Castilla y León (see Figure 2). The geographic characteristics of these SFNs provide a good test field. Their location in a peripheral, rural, and underpopulated region (see Sections 2 and 3.1 for further details) where the conventional food system is not as hegemonic as in urban settings seemingly levels the field for SFNs to carve out their ‘spaces of possibility’ (Moragues-Faus and Marsden, 2017, p. 275) and to achieve a compromise between values and hybridization. In this territorial context, three research questions are posed: Which values are enhanced, and which ones fade out in the new mix of values shaped by hybridization? How does hybridization influence SFN practices? What are the implications for the development of a feasible food alternative?

To answer such questions, the paper is structured as follows. Section 2 presents data, processing methods, and the geographical context of the empirical research. Results are presented in Section 3 around three main topics: motivations and values to start—or involve in—an SFN; practices that denote hybridization, and their main drivers; and an overall assessment of the perceived effects of SFN in the regional food system. These results are discussed in Section 4 around a core question: do hybridization practices compromise the attachment to values, the achievement of foundational goals, and the development of a more sustainable food system? Section 5 summarizes and suggests four questions for further research around the opportunities of SFNs in both provinces to engage with public administrations for developing a more resilient and localized food supply system.

2 Materials and methods

This paper is based upon an inventory of SFNs conducted during 2022 in the Castilla y León Regional Autonomy, the largest region in



Spain (94,226 km²). The process of SFN search and selection is framed by the definition proposed in the Introduction. It seeks to record all initiatives aimed at constructing a sustainable food system in the region (Venn et al., 2006, p. 253): inputs, production, processing, distribution, and consumption. Such inventory consists of a spreadsheet merging information from different sources: (i) official census of certified organic producers and processors; (ii) information supplied by the Fundación Entretantos, a partner of the research project that funds the present paper; (iii) systematic Internet searches whose terms included the name of each province in the region, as well as SFN type (e.g., ‘Burgos’ + ‘consumer cooperative’, or ‘Segovia’ + ‘organic shop’); (iv) systematic tracking of followers of each SFN in the social media; and (v) fieldwork involving alternative food events and meetings.

The inventory was structured to collect the following data on each SFN: name, legal status, physical and electronic addresses (including social media), geographic location, foundation date, economic specialization (at the product level when available), economic size (acreage, volume, staff), type of certification (official by a third-party organization; participatory-guarantee system), delivery channels, geographic scope of sales, public funding when applicable, and membership in networks engaged in sustainable/local/quality food promotion.

The inventory was intended to be exhaustive. However, it must be noted that it is incomplete. It was not possible to collect all the

information for each case; it is therefore difficult to assess the overall economic size of SFNs in the region. Moreover, some SFNs are short-lived, other ones lack the resources to keep their digital profiles updated, and the thematic websites that include lists of SFN are often outdated too. Therefore, the number of living SFNs is always approximate.

The inventory excluded organic label holders who were not engaged in short/direct/sustainable delivery channels (e.g., on-farm selling, consumer cooperatives, box schemes, farmers’ markets, or small independent bio-grocery stores) because they do not meet the definition’s criteria. That is the case of wineries producing organic wine along with conventional wine. The same applies to organic producers fully dependent on mainstream supermarkets.

The final number of SFNs recorded in the inventory was 412, including seed banks, producers of ecological inputs (seeds, fodder, fertilizers), urban agriculture, community-supported agriculture, alternative farming (agroecological, permaculture), organic-certified producers linked to some extent to alternative outlets, collective processing facilities, food hubs, consumer cooperatives, farmers’ markets, bio/eco/organic groceries, online sales platforms, and public organizations or foodservice outlets sourced with sustainable food.

Within the region of Castilla y León, the provinces of Salamanca and Zamora present the highest ratios of SFN per 10,000 inhabitants (Table 1). The geographic density of SFNs (cases by 1,000 km²) also outcores the rest of the region, except Valladolid, a small territory

TABLE 1 Sustainable food networks (SFN) in the provinces of the region of Castilla y Leon (Spain), 2022.

Province	Area (km ²)	Population (2023)	Population density (pop. / km ²)	SFN	SFN/ 100,000 pop	SFN / 10,000 km ²
Ávila	8,050	159,764	19.8	27	16.9	33.5
Burgos	14,292	357,370	25.0	30	8.4	21.0
León	15,581	448,573	28.8	76	16.9	48.8
Palencia	8,053	157,787	19.6	32	20.3	39.7
Salamanca	12,350	327,089	26.5	69	21.1	55.9
Segovia	6,923	155,332	22.4	30	19.3	43.3
Soria	10,306	89,528	8.7	11	12.3	10.7
Valladolid	8,110	521,333	64.3	88	16.9	108.5
Zamora	10,561	166,927	15.8	49	29.9	47.3
Region of Castilla y León	94,226	2,383,703	25.3	412	17.3	43.7

Sources: National Institute of Statistics (Spain) and Inventory of the ALISOS research grant.

which houses the region's capital city. Both provinces are located along the Spanish-Portuguese border (Figure 2), a sparsely populated area whose economy is highly specialized in the primary sector (Table 2). Accordingly, food processing is the largest industrial sector, employing 58.9 per cent of the manufacturing workforce in Salamanca and 70.1 per cent in Zamora. Furthermore, 17 products in this territory that have been awarded Protected Designations of Origin (P.D.O.) or Protected Geographical Indications (P.G.I.) (wines, cheese, ham, sheep, beef, pulses, pepper). Some specialties (red wines from P.D.O. Toro, Iberian ham from P.D.O. Guijuelo) keep noteworthy shares on the Spanish premium food market. The national and regional governments provide a significant source of income in both provinces (Table 2, again), through pensions (26.5 per cent of total income in Salamanca and 29.4 per cent in Zamora) and jobs in public services (19.4 per cent of active population in Salamanca and 17.3 per cent in Zamora).

Therefore, sourcing local food does not limit SFN setting in these provinces. Nonetheless, environmental conditions (cold winters, low rainfall) hamper fruit and vegetable cultivation, except in the mountain ranges ('sierras' in Spanish) of southern Salamanca and northwestern Zamora. Productivism was never hegemonic in these provinces, which constitute a sort of reservoir for the development of sustainable models of food provision (Parrott et al., 2002, p. 243): 72.3 per cent of total acreage in Salamanca and 52.5 in Zamora are farmed lands. Organic farming is underdeveloped in Salamanca, while Zamora holds more than one quarter of the region's organic acreage (Table 2). However, food consumption is somewhat restricted by the scant population density (far below the Spanish average of 96 inhabitants per km²), an unbalanced settlement pattern (with the capital cities, Zamora and Salamanca, housing 35.6 per cent and 43.5 per cent of their province's population), and income also lower than the rest of Spain (Table 2).

Table 3 showcases the distribution of SFNs along the food supply chain in both provinces. After fulfilling the inventory, semi-structured interviews were conducted with SFNs in each province. Cases were selected to include every stage of the food chain and to account for rural and urban settings in order to encounter more diverse perspectives. Urban gardens were not contacted because regulation bans any commercial use of the harvest.

The interviewees were usually the owners of the different SFNs: they all performed direct duties in the fields of production, marketing,

and administration. For the consumer cooperative, the integrated operator, and one olive growers' cooperative, interviews were conducted with the managers. Informants were previously contacted by telephone and nobody refused the interview. All interviews were conducted in person, digitally recorded, and transcribed with the software Transkriptor™. Interview length ranges from 15 to 109 min, with an average duration of 45 min.

The interview script covers the following topics:

- SFN: foundation date, legal status, staff (gendered), suppliers and purchasers, marketing channels, geographical scope of sales.
- Founders: number, motivations, fulfillment of foundational goals.
- Values: adjectives that better describe food and partners of the SFN.
- Sustainability: type of certification, pros and cons of the organic label.
- Cooperation: for sourcing, for delivery.
- Governance procedures: pricing, decision-making, fair profit-margins.
- Transportation: own resources, subcontracted to logistics firms.
- Use of ICT for SFN management.
- Environmental, economic, social, and cultural characteristics of the province/region on SFN performance: driver or liability?
- Compromise between profitability and commitment to values.
- Membership in sustainable food organizations.
- Relationship with public administration.
- Influence of the SFN in the transformation of the local and regional food system.

Additional interviews involved one association of organic food producers in Salamanca, one researcher specialized in organic conversion (often quoted during the interviews as an influential expert) employed by the University of Salamanca, and the technical staff of the Diputación de Zamora (Provincial Government) most committed with the development of the organic food sector.

3 Results

This section presents the content of the interviews relating to the three research questions. Following a brief profile of the SFNs based on

TABLE 2 Socioeconomic profile of the provinces of Salamanca and Zamora.

Indicator	Salamanca	Zamora	Castilla y León	Spain
% Primary sector / GDP (2021)	4.8	9.0	5.4	2.7
% Primary sector / employment (2021)	6.6	12.2	6.8	3.8
% Employment in manufacturing (2022)	6.4	5.3	12.4	9.8
% Employment in food and beverages / employment in manufacturing (2022)	58.9	70.1	34.3	22.6
Population of capital city (2022)	142,412	59,475	297,459	3,332,035
Average net income per household (2021, €)	29,176	26,846	30,942	30,552
% Farmed acreage / total acreage (2020)	72.3	52.5	56.0	47.4
Farmed acreage, total 2020 (ha)	893,652	554,264	5,277,137	23,913,682
Farmed acreage, organic 2020 (ha)	3,675	20,079	75,596	1,871,529
% Organic acreage / total acreage (2020)	0.41	3.62	1.43	7.83
Organic producers, processors, wholesalers, and retailers (2022)	132	329	1887	65,424
Pensions as a percentage of income (2021)	26.5	29.4	26.2	24.9
% employed by public administrations / total employed (2023)	19.4	17.3	17.5	13.9

Sources: National Institute of Statistics (Spain). Statistical Information System (Regional Government, Castilla y León). Yearbook of Agricultural Statistics (Ministry of Agriculture, Fishing and Food, Spain).

TABLE 3 Inventory of sustainable food networks in the provinces of Salamanca and Zamora, and cases interviewed.

Specialization	Number of cases	Interviews
Inputs (seeds, fertilizers, fodder)	6	2
Agriculture and livestock farming (includes processing and direct selling)	44	10
Processing (includes direct selling)	22	7
Urban gardening	17	–
Collaborative marketing (online, on-site)	2	1
Consumer cooperatives	5	1
Retailing (farmers' markets, organic groceries)	13	2
Sustainable HORECA	8	1
Responsible public procurement	1	–
Integrated SFNs (agriculture + processing + delivery + HORECA)	1	1
Total	118	25

Source: Inventory of the ALISOS research grant.

both provinces (Section 3.1), Section 3.2 addresses the reasons for setting up the SFN and the values supported by its owners or managers. Section 3.3 systematizes the signs of hybridization (indicated by the interviewee or detected by the interviewer) and the way such hybrid practices boost or restrict the fulfilment of those motivations and values. Section 3.4 showcases interviewees' assessment of the overall effects and impacts of SFN activities on the local and regional food system.

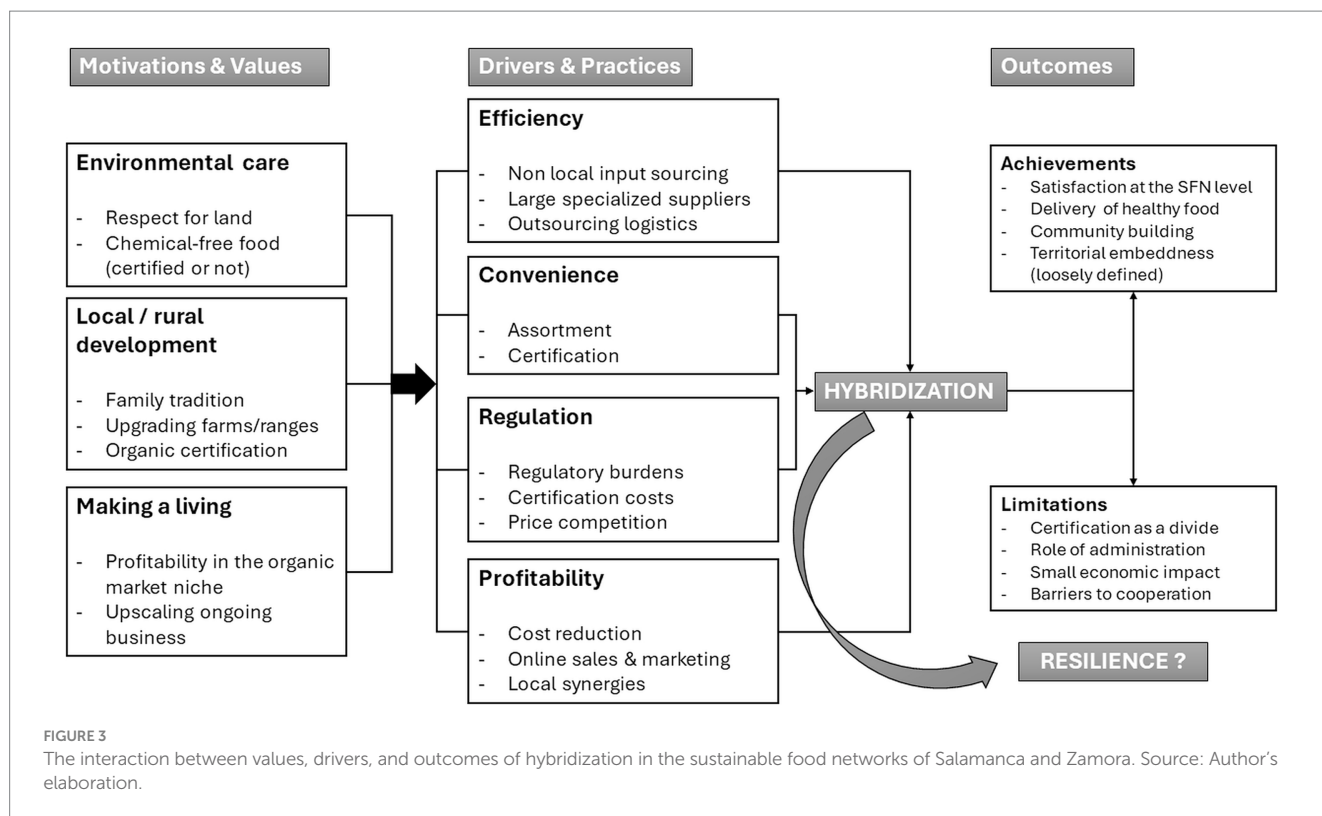
3.1 Sustainable food networks in the provinces Salamanca and Zamora: a brief outline

The 118 SFNs recorded in the inventory for these two provinces are diverse in their economic features. 56 per cent were founded between 2010 and 2019. The outbreak of the Covid-19 pandemic in Spring 2020 has sparked this process, with 15 more initiatives launched in 2020 and 2021. Self-employment (*autónomo*, in Spanish)

is the main legal status (57 per cent), followed by limited-liability companies (15.5 per cent, that includes the biggest SFN in terms of staff and turnover), and cooperatives (8 per cent). Informality is also present, with 12 SFN not registered as legal entities at all, mostly urban gardens and consumer groups.

The owner and his/her partner are the only persons employed in most SFNs, with hired staff recorded in 15 cases. The number of full-time workers may be roughly estimated around 400 individuals. Relatives are mentioned as a substantial aid during demanding seasons, like harvesting or olive processing. The largest SFNs locate in Salamanca: the integrated operator involves about 100 persons, and a big fertilizer producer employs 30 people.

Farm size ranges from 1 to 500 hectares, with most farmers in the lowest part of the distribution (below 100 hectares, and even below 10 ones). Livestock farming is larger on average (between 60 and 1,200 hectares) due to the extensive use of land in organic husbandry. Processors show a significant dispersion in their yearly volumes: 80 tons of organic fodder, 4.5 tons of organic cheese, 1.6 tons of organic



chocolates, 40,000 liters of organic olive oil, 10,000 cans of organic jam, 3 tons of organic snails... Also modest is the size of consumer groups (50 to 70 weekly boxes), with one remarkable exception with 200 households and a turnover of €200,000. Retailers and foodservice run small facilities (50 to 100 m²) and barely include hired staff.

The end-to-end structure of these SFNs is also variegated. The canonic SFN model is that of short supply chains, with producers selling directly to end consumers or to local groceries and restaurants within a regional framework. SFNs focused on distribution. This model is of course very common in Zamora and Salamanca. But their upstream and downstream linkages are far more reaching. As it is discussed in Subsection 3.3, sourcing and selling overflow the provincial or regional borderlines to reach other Spanish regions very often, even for very small SFNs. In very particular cases, foreign exchanges have been reported by the interviewees, either to buy raw materials or to supply foodstuff.

The location of SFNs (Figure 2, again) follows a double pattern. First, concentration around the two capital cities, Salamanca and Zamora, which is proportional to their respective population sizes. Second, an overall bias to the eastern half of each province, where population density is higher. The western strip along the Spanish-Portuguese border, on the opposite, is even less populated and SFNs are only clustered in the comarcas of Sanabria (NW Zamora), Arribes del Duero (both sides of the Zamora-Salamanca borderline, beside the Duero river valley), and the Sierra de Francia (Southern Salamanca).

3.2 Why enter the world of SFNs? Motivations and values

When asked about the reasons for setting up their SFN, the interviewees indicated a combination of environmental, territorial,

and economic arguments (Figure 3). Environmental goals are related to the individuals' own circumstances. Personal commitment to a more sustainable farming involves respectful management of the land or livestock to produce chemical-free crops, vegetables, meat, and dairy. Regular organic food consumers have entered production or have set up cooperatives to increase organic food consumption in their livelihoods.

These concerns are intertwined with the local environment, since they intend to make a contribution to rural development. Farms/ranges have frequently belonged to the same family for generations. For these interviewees, the best way to take care of their ancestors' legacy is to shift from conventional to permaculture or organic farming. Some farmers state that they adopted organic certification following decades of (in their own words) 'natural' farming. Other ones only switched to organic production after their parents had retired.

Making a living constitutes another frequent goal. Several interviewees bluntly stated that their main reason for setting up an organic grocery or workshop was its potential profitability. This group includes newcomers in the field, but other owners think of sustainable food as an opportunity to upscale their current businesses, or to make money from disused inherited land in rural areas.

These three motivations encompass the values highlighted by the interviewees when asked which attributes turn their food different. They all agree that the food they produce, or deliver, is 'better'. Such 'betterness' is anchored in environmental, territorial, and economic arguments, with adjectives such as 'natural', 'healthy', 'handcrafted' and 'local' quoted in every SFN. Producers claim to avoid chemical inputs and emphasize that they produce small batches of low-processed food (cheese, jam, olive oil, preserves, vegan recipes). Environmental care, in particular soil and pest management, is intended to endow these products with values of naturalness and healthiness. The same reasoning applies to handcrafted food processing.

Local sourcing underlies the idea of ‘defending our territory’. It reduces food miles and carbon footprint. But it also merges environmental preservation (landscape, local livestock breeds and plant varieties), population recovery, and economic development via endogenous entrepreneurship. In addition, operating at the local scale is profitable for producers. Direct selling (home delivery, farmers’ markets, online sales) increases their profit margins because intermediaries are avoided. These additional revenues are reported by some producers to represent a significant percentage of their income.

Few of the interviewees explicitly indicated price bargaining as being conflictive. However, many practices related to pricing embody the hybridization process, as the next Subsection describes.

3.3 Hybridization through everyday practices

The canonic SFN model internalizes almost every task, minimizes staff hiring, sources and sells at the local scale (mostly on a face-to-face basis) and prioritizes values other than profitability as a rule of thumb. It is important to underline that the cases studied in Salamanca and Zamora generally meet these criteria. Nonetheless, a closer scrutiny unveils a web of practices that fall beyond this archetype. These practices are signs of hybridization that respond to the constraints posed by the fourfold need for greater efficiency, convenience of the service provided, compliance with regulations, and sufficient profitability to make a decent living.

3.3.1 Efficiency

Efficiency seeking is apparent in upstream linkages. Producers do not purchase most of their inputs (seeds, fodder, wheat) locally because organic supply is scarce in the two provinces or in Castilla y León. Other Spanish regions are mentioned as providers of such key inputs. Some producers attempt to select their own seeds, for instance, but external suppliers are more affordable and also reliable in terms of availability and variety.

Environmental conditions are responsible for the shortage of fresh fruit or vegetables; hence, some SFNs purchase such inputs in southern Spain or in Portugal to keep the business running. The same applies to ingredients like cocoa or sugar, imported from Latin America via wholesalers specialized in organic or fair-trade products. The weak industrial development in these provinces compels SFN managers to buy packaging, equipment, and other manufactured inputs from remote suppliers.

Efficiency also comes to the fore in the field of logistics. Small operators spanning within short distances rely on their vans for most tasks. But subcontracting shipments to specialized firms is commonplace for SFNs handling larger volumes, dairy products, or when dealing with consumers beyond the regional borders. These logistic services are advantageous in terms of price, reliability, frequency, timesaving, and geographical scope.

3.3.2 Convenience

Practices rendering the SFN experience more convenient contribute to hybridization because they aim at smoothing the consumers’ experience. This driver is highly influential in consumer-oriented SFNs, such as organic supermarkets, consumer cooperatives, and HORECA outlets. Interviewees report three main consumer

profiles, linked to three values: health, environment, and lifestyle (e.g., sports). For these SFN to make a living, they need to mimic mainstream supermarkets, in terms of assortment and convenience, and to provide certified organic food products.

However, organic suppliers in these two provinces can hardly meet the demand for foodstuffs by these urban households, either in volume or in variety. Alternative practices (permacultural, agroecological, regenerative) are not usually accepted in these marketing channels in order to guarantee consumers’ trust. This mutual trust between producers and consumers is thus replaced by eco-labels as carriers of meaning and as tools for achieving customer loyalty.

This supply–demand gap is filled with organic food purchased from larger eco-producers and eco-wholesalers located in other Spanish regions, and even abroad. Fieldwork in food outlets clearly indicates that proximity sourcing accounts for a small share of the portfolio of available food items.

3.3.3 Regulation

Regulation is the third driver of hybridization. Slaughtering, for instance, is allowed in few facilities tightly regulated by the regional government. Each slaughterhouse focuses on a narrow range of animal species (cattle, sheep, hens, chickens, turkeys, or pigs). And fewer facilities are authorized to slaughter organic livestock. Hence, organic breeders in rural settings need to transport their livestock long distances to be slaughtered, thus incurring higher freight costs.

The costs of third-party organic certification add to this financial burden. This fare is highly contested by producers, who argue that it is discriminatory because the conventional food sector, whose products are harmful for environment and health, is not taxed because of its political influence. Certification costs imply higher prices, so it reinforces the usual perception of organic food as gourmet and expensive.

European, Spanish, and regional regulations referring to the Common Agricultural Policy (CAP), organic labelling, animal wellbeing, and food safety equally apply to small and big producers. SFN stakeholders are thus compelled to invest in expensive facilities and equipment, despite their small turnover. As a result, their unitary production costs are higher than larger farms or processors. There is a shortage of SFN workers with the necessary administrative skills as well. Furthermore, a lot of time (necessary for performing core tasks) is required to provide the vast amount of information required by administrations and certifying boards. These regulatory constraints raise production costs for these small businesses.

So regulation-related costs contribute to hybridization because SFNs react as mainstream companies, attempting to offset these charges via cost reduction in sourcing or logistics. Moreover, some producers reject the idea of organic certification to save money (and to avoid paperwork), or they seek cheaper certification fees offered by private consultancy firms located in distant Spanish regions. Thus, cost-based competition, so criticized in the realm of mainstream food supply chains, is not absent of the everyday landscape of SFNs in Salamanca and Zamora.

3.3.4 Profitability

Cost cutting is just one way to achieve a reasonable level of profitability. The fourth driver of hybridization is the quest for greater profitability through proactive marketing practices to increase revenues and sales. Interviews show that direct and local/regional delivery channels absorb a significant share of producers’ output. Nevertheless, according to the inventory, 50 SFNs run online shops,

and 36 sell beyond the regional boundaries. Social networks (Instagram, Facebook, X) are key instruments for these SFNs to keep in touch with their customers, with some owners spending significant amounts of time to address these issues.

Exportation to foreign countries is unusual, of course (eight cases detected), and restricted to premium producers (cheese, pulses, olive oil). But several small farmers and processors (jam, cheese, olive oil) report high shares of their sales (over 50 per cent) throughout Spain, namely in the wealthiest regions (Madrid, Catalonia, the Basque Country), where restaurants, hotels, or supermarkets appreciate the quality of their products.

Hybridization is evident in successful SFNs which have developed joint businesses with local partners to spark synergies: olive oil and wine, lamb and cheese, olive oil and social events, etc. These upscaling endeavors boost sales and increase consumer awareness, but they also strengthen socioeconomic networks at the local level and contribute to rural development. Another practice that increases processors' turnover while knitting local ties involves the processing of third-party outputs (olives, tomatoes) to be marketed under the client's own brand; this win-win deal (*maquila*, in Spanish) increases processors' sales and saves costs for farmers.

This subsection has highlighted the way in which the four drivers of hybridization (efficiency, convenience, regulation, and profitability) contribute to SFN 'mainstreaming' by directing their practices towards economic sustainability, despite usual criticisms of conventional food supply chains as profit-maximizers at the expense of huge environmental and social damage across geographical scales. Making a living according to the 'pure' SFN definition that subordinates profit to other values appears to pose a big challenge in Salamanca and Zamora. However, as the next subsection demonstrates, interviewees show a high degree of satisfaction with their contribution to the transition towards a more sustainable food system.

3.4 To what extent are SFNs transforming the regional food system?

All interviewees agree that their SFNs have positive environmental effects at two levels: protecting nature and producing 'natural' food. Both impacts are valued the most by producers, processors, and retailers. Such 'natural' food is associated with two social implications: promoting health and building community. The loyalty of consumers and the enduring economic linkages (upstream and downstream the value chain) generate a strong sense of community among SFN partners. It is often argued that personal acquaintance flourishes after repeated exchanges, namely when face-to-face interaction is involved (farmers' markets, on-farm sales, HORECA outlets).

This combination of environmental and social improvement has brought some SFNs to highlight their role as leverage for territorial development in the two provinces. They claim that their attachment to land and their preference for local sourcing keep the countryside alive. Switching to organic production is deemed as a major achievement that benefits not only urban dwellers but the local economy as well, in terms of new jobs, rejuvenating the population, and even as a tourist attraction. Such attachment is very loose in its boundaries, ranging from the village to the province or the whole region of Castilla y León. As underlined in the Introduction, the 'comarca' holds an important role as geographical framework in those

territories with a distinctive identity and landscape, like Arribes del Duero or the Sierra de Salamanca.

The assessment is far more critical in political and economic terms. Organic labelling is either rejected as a mere cost or called into question as a burden. The main advantage of the certification system involves gaining access to high-end consumers. This argument often prevails over the incentive of providing ecofriendly and healthy food. Simplifying paperwork and adapting food regulations to the particularities of small producers are constant demands of SFN managers.

Even more substantial is the claim that public authorities should foster organic food consumption, e.g., by public counseling, by sourcing at school canteens, or by supporting farmers' markets (a profitable delivery outlet). The mindset of population in Salamanca, specially, is pointed as a barrier that hampers the development of the sustainable food sector. Public support (at the educational and regulatory levels) is highlighted as a key factor for the SFN movement to upscale.

When considered as firms, these SFNs are small or tiny businesses, with very few exceptions. Their production volumes are very low, and their market share is almost negligible. Direct selling circumvents intermediaries and increases sellers' revenues while enabling producers to keep control of their prices. Nevertheless, competition from mainstream supermarkets (which offer cheap conventional food alongside branded organic food) jeopardizes the bargaining power of SFNs, keeping their prices low for years, despite raising energy and input costs during the Covid-19 and Ukraine crises. Although profit margins are approximately 30 or 50 per cent of total sales, at least three SFNs were on the verge of closing down as a result of lower sales, shrinking profitability, regulatory demands, or retirement.

4 Discussion

4.1 The limited scope of the transformative goals

According to the notion of hybridization, most SFNs in Salamanca and Zamora promote the enhancement of environment, health, and territory, as Forsell and Lankoski (2018, p. 51) find in sustainable food retailing in Finland and the United Kingdom. Food is not conceptualized as a tool of systemic transformation in these provinces. Very few interviews reveal any criticism of capitalism, at least in an explicit manner. 'Food sovereignty', a key claim of grassroots movements (Giraldo and Rosset, 2018, p. 549), is mentioned only once, and merged with ideas of 'back-to-basics' and 'rural renaissance'. Indeed, the degree of autonomy of these SFNs from capitalism is lower than expected because many ones depend upon exogenous inputs and services (as Baron and Dimitri, 2019, p. 772, note for organic processors in the USA), which is contrary to the principles of agroecology (González de Molina and López García, 2021, p. 1070; Van der Ploeg, 2021, p. 19) or to the everyday practices of the most committed SFNs, as Rosol (2020, p. 62) unveiled for consumer groups in Germany. This intertwined way of management reinforces the use of the term 'network' to label these initiatives, but it also opens the door to hybridization because it mimics mainstream firms through the interaction with external partners not committed to SFNs' values (Follett, 2009, p. 41; Duncan and Pascucci, 2017, p. 335).

Therefore, these SFNs address a far less ambitious target than ‘capitalism’, as most short food supply chains do (Chiffolleau and Dourian, 2020, p. 4). Criticism of environmental damage and corporate power pervades their discourse, thus legitimating their contribution to a healthier and greener food system, as underlined by Brinkley (2017, p. 315) or Scaramuzzi et al. (2021, p. 4). The adverse geographic setting of these provinces represents a powerful contextual factor which influences the hybridization-prone operation of these SFNs. They consider their performance as a key contribution to territorial development as well (Mundler and Laughrea, 2016, p. 222). And their commitment to the revitalization of rural economies and to reversing depopulation constitutes yet another expression of this more attuned viewpoint.

4.2 The focus on the product and the loose definition of ‘the local’

These SFNs are concerned with a view of environmental sustainability that is ‘inward-oriented’, more focused on the product than on the larger network where it is embedded (Watts et al., 2005, p. 27; Follett, 2009, p. 39). SFN managers carefully describe their environmentally-friendly practices in agriculture, livestock farming, or food processing, to comply with organic certification rules. Interviewees honestly believe that their activities contribute to a better environment, to the supply of healthier food, and to sounder territorial development. These results are aligned with the expectations of European urban consumers, in the view of Verain et al. (2021, p. 6), and with the emphasis of Finnish consumer groups surveyed by Kallio (2020, p. 6) on good food (healthy, local), good community (trust, commitment), and good price (fair, affordable).

Nevertheless, there is little concern about ‘outward-oriented’ sustainability, that is, the environmental, economic, and social implications of SFNs’ practices beyond their premises. The need to meet regulatory requirements legitimates controversial practices at odds with SFN goals or values, e.g., the regular purchase of organic packaging or other inputs from distant suppliers.

Bearing in mind that Castilla y León is the largest region in Spain, SFNs’ claims that they prioritize ‘regional’ sourcing or selling conceal the intensive use of private vehicles, covering long distances, and greatly increasing their carbon footprint, a common trait of short food supply chains highlighted by Paciarotti and Torregiani (2021, p. 437). The settlement pattern of Salamanca and Zamora replicates the hindrances of the Castilla y León regional model, imposing limitations that these small SFNs overcome by means of hybrid practices and through linkages with the mainstream food environment. Nonetheless, the terms ‘regional’ and ‘local’ embody a remarkable discursive power, as Feagan (2007, p. 33) or Trivette (2015, p. 477) observed: both adjectives do not refer to any specific geographical scale or distance (Enthoven and Van den Broeck, 2021, p. 2), but constitute very effective expressions which conceal other implications.

This imbalance between ‘inward-oriented’ and ‘outward-oriented’ sustainability gives rise to organic/sustainable foodstuffs that are entangled in a web of mainstream flows and interactions. The main values of SFNs in Salamanca and Zamora adapt well to this inward-outward divide, because inward-oriented sustainability seems enough to fulfill their main concerns: earning a living from food that is natural and healthy at a broadly defined ‘local’ scale. Hybridization, therefore,

is not perceived as such by the SFNs in these provinces. Interviewees feel neither ashamed nor guilty because of the practices described in Subsection 3.3. The search for efficiency, convenience and profitability is, in turn, considered to be legitimate if these SFNs are to continue successfully operating in a capitalist food system.

4.3 Regulation and certification as a divisive matter

Regulatory demands, reinforced by the Green Deal enacted by the European Union (European Commission, 2019), raise discontent among SFN stakeholders. These requirements call for laborious paperwork and give rise to higher costs, thus preventing the development of SFNs. The lack of involvement of public administrations in the production and consumption of sustainable food (e.g., public procurement, educational programs, simpler rules) also frames SFNs’ focus on ‘inward-oriented’ sustainability and justifies their ‘not-so-alternative’ managerial practices (Forssell and Lankoski, 2015, p. 71). Simply put, it is not the food system, but rather the administrative framework, that these SFNs are challenging in the short term.

The organic label constitutes the cornerstone of this ‘inward-oriented’ sustainability because, for their holders, it is a guarantee of natural and healthy food that provides access to high-end markets and concerned consumers. But it also contributes to downplaying ‘outward-oriented’ sustainability due to the hybrid practices and strict regulations needed to get the label. Therefore, ecolabelling’s overall contribution to environmental sustainability and territorial development in Salamanca and Zamora remains uncertain and calls for further in-depth study, as Chiffolleau and Dourian (2020, p. 8) recommend for all short food supply chains.

This uncertainty frames the divide between pro- and anti-ecolabelling. Pro-labelling SFNs support trustworthiness (for consumers), access (for producers) and revenues (for producers and retailers). The anti-labelling movement complains that external supervision, costly fares, and premium prices ‘fetishize’ organic food (Goodman, 2004, p. 5; Watts et al., 2005, p. 30), thus undermining its transformative power. Three popular arguments underpinning the anti-label standpoints involve the availability of organic food in mainstream supermarkets, the market power of corporate organic brands, and the entry barriers erected by certification procedures; these arguments from Salamanca and Zamora resemble those found in the neighboring region of Madrid by González Azcárate et al. (2022, p. 6).

These traits of the conventionalization process led by the ‘industrial green food market’ (Sato et al., 2024, p. 187) are not as influential as the nexus between health and organic labelling (Macías Vázquez and Morillas Del Moral, 2022, p. 9). The persistent focus on health as an attribute of ecolabels addresses households with greater purchasing power and higher cultural level. Low-income workers and minorities are underrepresented in the SFNs of Salamanca and Zamora, as Argüelles et al. (2017, p. 38) or Moragues-Faus (2017, p. 466) observe, with one remarkable exception: the church-led integrated operator located in Salamanca city which, not by chance, strongly opposes to organic certification.

This divide about ecolabelling has blurred the meaning of the term ‘organic’. The most reluctant and conservative farmers associate

their self-defined ‘natural’ and ‘traditional’ practices with the attributes attached to organic labels. However, their production costs are lower and their prices usually cheaper. Consequently, certified producers refuse to share the same sales outlets with them. They argue that consumers could be confused by the differences in price of apparently similar products. Oñederra-Aramendi et al. (2018, p. 30), however, do not find such clashes among producers involved in farmers’ markets in the Spanish province of Guipúzcoa. In Salamanca and Zamora, then, prices seem to be more controversial across SFNs than within them, contrary to the careful price setting procedures described by Chiffolleau et al. (2019, p. 187).

4.4 Barriers to cooperation and limits to growth

The confluence between this divide about ecolabels, first, and the persistent use of hybrid practices, second, is very likely to explain the reluctance of these SFNs to cooperate. Hybridization carries notions of individualism, competition, and self-reliance which overshadow the collaborative spirit of early SFNs (Poças Ribeiro et al., 2020, p. 503). Despite some informal networking practices (*maquillas*, attendance in fairs), interviewees feel confident about their individual managerial mixes in fields such as logistics and sourcing. The ‘inward-oriented’ notion of sustainability comes up as a barrier to a more responsible governance of the supply chain. In absence of such governance, the four drivers of hybridization (efficiency, convenience, regulation, and profitability) rule most exchanges across these SFNs, within or beyond the larger framework drawn by the foundational values.

When more formalized solutions involving further cooperation (food hubs or shared processing facilities, that Tsouflias et al., 2023, p. 15, or Ajates, 2021, p. 15, consider key for SFNs to gain traction) are suggested by the interviewees, skepticism quickly arises. Lack of time, rejection of more administrative duties, satisfaction with the current situation, or dubious past experiences are mentioned to avoid engagement with larger cooperative projects.

Associations of certified organic food producers have been established in both provinces as late as 2022 (ASOESA, in Salamanca, and BioProeZa, in Zamora). Their aim is to get support from local authorities to increase consumers’ awareness of organic food: more open-air markets, public procurement, educational campaigns... The underlying rationale here, however, involves increasing revenues and lowering the regulatory standards, rather than strengthening the local production networks or developing a long-term public-private partnership. Any attempt to upscale the sustainable food value chain in these provinces on the basis of collaborative territorial governance (as suggested by Yap, 2023) involves addressing the influence of mainstream players, a task that appears to be undermined by this negative effect of hybridization.

If (unconscious) hybridization is somehow responsible for these barriers to upscaling, then it is easier to understand the modest economic achievements reported by the SFNs (as it is the case of farmers’ markets in South Carolina, Hughes and Isengildina-Massa, 2015, p. 83, but not in the large survey of Kłoczko-Gajewska et al., 2023, in five European countries). Upscaling is hampered in Salamanca and Zamora by a triangle based upon a narrower definition of goals, by territorial conditions (long distances, low density, scattered consumer markets), and by the multifarious consequences of hybrid

practices. ‘Inward-oriented’ sustainability drives SFNs to following the rules for ecolabelling and to weaving links with their customers. Small scale and target niches are assumed to be intrinsic features of these initiatives, as the reluctance to engage in more ambitious schemes clearly demonstrates. The contribution of SFNs to territorial development is therefore double-sided: interviewees feel they are doing a good job in this field, but they do not realize that their everyday practices counteract such a contribution to some extent.

4.5 From hybridization to resilience?

This discussion of the interaction between motivations, values, hybridization, impacts, and limitations of SFNs in Zamora and Salamanca gives rise to a future research question, already suggested in the Introduction. These SFNs show clear evidence of hybridization. Herein, such hybridization is framed within a particular geographic context and rooted in a bounded definition of values and goals (Brinkley, 2017, 315). The ‘inward-oriented’ conceptualization of sustainability restricts SFNs’ ‘transformative power’ (Calvário and Kallis, 2017, p. 614) to the environmental and social arenas, and the impacts in these two fields are even modest, given the small economic size of these initiatives, as the revision by Chiffolleau and Dourian (2020, p. 12) clearly underscores. However (and here the question arises), to what extent does hybridization strengthen these SFNs and makes them more resilient in an adverse context of growing conventionalization?

Data collected during this research clearly suggest that hybrid practices have become an integral part of these SFNs. The scrutiny of their operations shows that it would be almost impossible for them to survive if they were to adopt a more challenging set of practices, aligned with more oppositional and transformative goals. Hybridization, then, is very likely to underpin SFNs in both provinces. Their linkages to sustainable/alternative *and* to conventional/mainstream food supply chains divert resources from the latter to the former, subsequently supporting a small but real sustainable food socio-economy in both provinces. For this reason, Figure 3 argued that a specific set of values and motivations permeate a wide range of hybrid practices that, at the end of the day, provide healthy, natural, and local food to a small niche of concerned consumers in Salamanca, Zamora, and beyond.

5 Conclusion

The burgeoning phenomenon of sustainable food networks has been addressed from two standpoints. The ‘view of difference’ emphasizes their potential to build a food supply system fully critical of, or alternative to, the mainstream food value chain ruled by big producers, wholesalers, and retailers. The ‘view of influences’ highlights the multiple exchanges between SFNs and that mainstream capitalist environment. These interactions give rise to two main trends. Conventionalization, first, refers to the attachment of new attributes (health, naturalness, localness) to foodstuffs channeled through mainstream value chains, often embodied in organic labels and proximity sourcing. Hybridization, secondly, points to the conscious or unconscious adoption of mainstream practices by sustainable food stakeholders for keeping their initiatives alive and for challenging, to some extent, the power of the big food players.

The present paper adheres to the ‘view of influences’ and analyzes hybridization in the SFNs located in the provinces of Zamora and Salamanca, in the region of Castilla y León (Spain). These borderline and underpopulated provinces host a noteworthy number of SFNs encompassing the whole value chain. These SFNs are, to a greater or lesser extent, influenced by the hybridization process. Efficiency, convenience, regulation, and profitability are identified here as the four drivers of hybridization. These drivers are embodied in a plethora of practices quite similar to those employed in mainstream food firms. Nonetheless, these practices are legitimized by three motivations and values: environmental protection, health promotion, and local development. The priority afforded to these three stances gives rise to an ‘inward-oriented’ notion of environmental sustainability that is reinforced by the geographic context in which these SFNs are operating. Long distances, shortage of inputs, and distant consumer markets stretch notions of ‘local’ and ‘regional’ to encompass the everyday practices deployed by SFNs to remain profitable and viable.

‘Inward-oriented’ sustainability, hybrid practices, and criticism of regulatory demands call organic labelling into question and probably hinder further cooperation among the SFNs. Under these conditions, upscaling is very unlikely in the short and medium term, in the absence of stronger public commitment towards a more sustainable food system.

Hybridization, however, might be conceptualized as a shield against competition from the mainstream food system as well. Assuming a wealth of hybrid practices, SFNs from Salamanca and Zamora are laying down a ‘soft’ path towards a more sustainable food system. They are not challenging the capitalist system from outside, but rather turning some of their current managerial practices into tools for delivering localized, safe, and nutritious food across geographical scales, while simultaneously making a decent living based upon fair profitability.

The recent setting up of producers’ associations in both territories likely heralds a more reflexive stage in this ‘soft’ path. But the argument behind the ‘view of influences’ (that is, SFNs continuously interact with the wider food system) opens space of such reflexiveness on the part of public authorities as well. The design of public policies at the crossroads of food, territory and sustainability in low density regions may benefit from the outcomes of this research.

Three directions are suggested here: public procurement, education, and a tailored regulation. Further research on territories similar to Castilla y León should therefore monitor the evolution of this ‘soft’ path, anchored in a bounded formulation of goals and motivations. Herein, four main questions arise for the coming future. To what extent will public policies—mainly regional and local—support this process in the next years? Are these policies sufficient to overcoming the obstacles intrinsic to the geographical context and, consequently, to boost the upscaling of these SFNs? What are the impacts of public policies and subsequent upscaling (if this is the case) for territorial development in both provinces and for the construction of more localized and self-sustained food system? Which drivers and barriers continue to hinder advances in this path?

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Ethics statement

Ethical review and approval was not required for the study on human participants in accordance with the local legislation and institutional requirements. Written informed consent from the interviewees was required to participate in this study in accordance with the national legislation and the institutional requirements. Written informed consent to participate in this study was provided by the participants.

Author contributions

JS-H: Conceptualization, Data curation, Funding acquisition, Methodology, Project administration, Writing – original draft, Writing – review & editing.

Funding

The author(s) declare financial support was received for the research, authorship, and/or publication of this article. This article is framed in the research grant ‘Urban–Rural Governance and Food Transition in Low Density Regions: Castille and Leon’ (2021–2025), reference PID2020-112980GB-C21, funded by the Spanish Framework for Scientific and Technical Research and Innovation (MCIN/AEI/10.13039/501100011033). Research partners are the universities of Salamanca (Spain), Valladolid (Spain), and Munich (Germany), along with the Fundación Entretantos (Spain). This is a subproject linked to the coordinated ALISOS project—‘Sustainable food networks as value chains for agroecological and food transition. Implications for territorial public policies’. The author is also researcher partner in the project “FOODTRANSITIONS” (TED2021-129660A-I00), funded by MCIN/AEI/10.13039/501100011033 and by the European Union ‘Next Generation EU’/PRTR.

Acknowledgments

The author is very grateful to all interviewees, who kindly devoted their time and enthusiasm to this research project.

Conflict of interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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