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The Role of NGOs in Food Supply Chains: Case of Supporting Mechanisms for Dutch SFSC Stakeholders

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Abstract: Contemporary food systems are characterised by centralised supply chains and extensive farm-to-fork distances. As an alternative, short food supply chains (SFSCs) are gaining attention. While the role of non-governmental organisations (NGOs) in supporting global food systems is well-established, their contribution to SFSCs, particularly within the European context, remains less defined. This paper addresses this knowledge gap by investigating the specific support mechanisms that NGOs provide to support SFSC structures. Drawing on qualitative interviews with seven informants from leading NGOs, this study elicits and analyses these support mechanisms. The findings reveal that NGOs provide support to offset the challenges faced by SFSC stakeholders. This support includes providing logistical infrastructure, offering training in sustainable practices and business management, facilitating direct market access, engaging in political advocacy, and delivering digital tools. The results also indicate that while a core set of support is offered across most NGOs, some services are unique to an organisation's specific mission. This paper concludes by contrasting the nature of NGO support in short and global supply chains, highlighting the need for further research to understand the distinct mechanisms and priorities at both levels fully.

Keywords: Short Food Supply Chain; Alternative Food Network; Support Functions; NGO

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1. Introduction

Centralised supply chains dominate contemporary food systems, whilst decentralised and local alternatives remain marginal [1]. Corporations exploit economies of scale and mass production to deliver high volume at low prices, but often ignore the needs of small- and medium-sized stakeholders [2]. Although these multinational firms generate significant data on sourcing, production, and distribution, a disbalance in information sharing still leaves many stakeholders poorly informed [3,4]. Short food supply chains (SFSCs) have emerged to close these gaps, driven by consumers and small producers seeking a fairer return and an increase in transparency [5,6]. Still, participating stakeholders struggle to collaborate with supportive bodies such as Non-governmental organisations (NGOs) and government agencies.

Government-backed incentives, subsidies, guidelines, and policy reforms already strengthen SFSCs [7,8]. Research on similar NGO led initiatives, however, remains limited and narrative-based [9,10]. In addition to government-led programmes and initiatives, SFSCs also rely on a scattered system of generic support mechanisms such as rural banks, co-operative boards, and regional development agencies [7,11]. These forms can also originate from the private sector in the shape of accelerator programmes or IT initiatives [12]. While each generic actor targets a specific structural and shared barrier, there is a low level of collaboration and coordination in the way this support makes its way down to the specific stakeholders of SFSCs [13,14].

According to the foundational research by Renting et al. (2003), short food chains tend to adopt one of three models, or archetypes, of collaborations: face-to-face, proximate, or spatially extended. Later elaboration on this foundational work further backed up this division [15]. Face-to-face configurations (e.g. farmers' markets, community-supported agriculture) rely on direct personal exchange but struggle with securing (seasonal) cash flow and micro-financing demands necessary to maintain and scale operations [16,17]. Proximate forms of collaboration tend to focus on aggregating local or regional output through centralised "hubs" or local programs initiated, for example, through cooperatives. Traditionally, more generic support is offered here through development agencies, cooperatives, and regional banks [18]. Finally, spatially extended chains tend to employ high-level specialists, digital platformers, and large-volume stakeholders like wholesalers to reach larger numbers of buyers, for example, in denser urban areas [19]. The main challenges faced here are balancing scaling operations whilst maintaining the values of the SFSCs and its key characteristics, such as transparency, traceability, and the social focus [19].

Understanding what form of support NGOs could offer to multiple forms of collaboration models and their stakeholders is important for an improved level of access to the proper support for all stakeholders of an SFSC [6,20]. Addressing this gap in the existing literature is therefore a key driver behind this study.

To address the knowledge gap outlined above, this study focuses on the central questions: "What supporting mechanisms do NGOs provide to short food supply chains to improve their economic, environmental, and social performance. Guided by a set of sub-questions, the study identifies and evaluates the concrete mechanisms through which NGOs influence sustainability outcomes across all three pillars.

2. Background and Related Work

Collaboration in SFSCs relies on long-term strategic partnerships built on trust, interdependence, and shared goals [13]. While terms such as 'co-operation' and 'partnership' are often used interchangeably with 'collaboration', in SFSC, they signify more than a transaction; they denote a higher level of synergy [21]. Typical features include few intermediaries, simple structure, and short physical and social distances. These traits generate close ties yet can limit competitiveness against highly organised global chains [22].

Local embeddedness underpins SFSCS. A clear geographic identity strengthens producer-consumer relationships and improves information flow throughout the chain [7,11]. Transparency and traceability are priorities; stakeholders share data on production methods, origin and pricing, reinforced by mutual trust [21,23]. Proximity fosters loyalty, enhances feedback loops, and promotes a shared sense of responsibility, thereby keeping SFSCs agile [24,25]. SFSCs also mirror community values, treating consumers as active chain partners rather than passive buyers [8,14]. Instead of spot-market deals, stakeholders collaborate to achieve economic, environmental, and social outcomes [13,26]. Yet, limited infrastructure, logistical gaps, and a reliance on goodwill can limit growth [27].

2.1. Forms of Collaborative Relationships

Based on the three archetypes outlined earlier, several collaborative relationships have been established and developed to tackle common SFSC bottlenecks. Table 1 links each popular arrangement to its dominant archetype(s), explains how it functions, and highlights the chief benefits reported in the literature. Although these arrangements of collaborative relationships within SFSCs differ, each offers a multifaceted response to the barriers faced by SFSCs: cooperative sharing of resources, farm-to-retail deals secure markets, CSAs spread risks, food hubs provide logistics, and hybrid initiatives harness broader support. Collectively, they enhance the resilience and market responsiveness of not just SFSCs but the wider local food systems [13,24].

Table 1 Forms of collaborative relationships in SFSCs

Type of Collaborative Relationship	Dominant Archetype(s)	Description	Specific Benefits to SFSCs
Producer co-operative	Proximate / Extended	Farmers jointly own and manage shared resources (capital, equipment, distribution), acting as a combined entity in the market.	• Reduce overhead costs and enhance collective bargaining power [28]. • Combine production volumes to overcome scale limits, improving competitiveness against conventional chains [22,29].
Community Supported Agriculture (CSA)	Face-to-face	Consumers pay an upfront subscription for a share of the harvest, sharing risks and rewards with farmers.	• Builds strong producer–consumer trust and transparency [2,30]. • Fosters community engagement and offers educational opportunities [24].
Farm-to-retail relationships	Proximate	Direct contracts link local producers with retailers or institutional buyers (e.g. schools, hospitals), specifying minimum orders, margins, and logistics.	• Secure predictable market access and income [31]. • Align with rising demand for ethically and transparently sourced food [26,29]
Food Hubs	Proximate / Extended	Central entities collect, store, process, and distribute products from multiple local producers, sometimes hosting community activities.	• Lower entry barriers for small and medium producers by providing shared logistics and storage [12,32] • Enable scaling without large individual investment, strengthening local supply resilience [13]
Multi-/hybrid-stakeholder models	Face-to-face / Proximate / Extended	Combine co-operative, CSA, and direct-retail features with digital platforms, involving producers, consumers, NGOs, local authorities/governments, and tech providers.	• Broaden resource base and expertise, allowing flexible responses to local needs [8,33] • Promote transparency, knowledge sharing and community-building via digital tools [22].

3. Methodology

This study combines the theory based on the Resource-Based View (RBV) and stakeholder theory. RBV states that organisations can generate a sustained advantage from tangible or intangible resources that are Valuable, Rare, Inimitable, and Non-substitutable, also known as the VRIN framework [34]. Stakeholder theory stresses the need to recognise and address the interests of all parties affected by a chain's activities [35]. Together, these theoretical foundations shed light on both the tangible resources NGOs contribute (expertise, networks, funding) and the multi-stakeholder dynamics that shape these SFSCs and their local or regional food systems [33,35].

As can be seen in Table 2 this study follows an exploratory qualitative design grounded in the theory mentioned above. Seven semi-structured expert interviews were conducted with representatives from Dutch NGOs engaged in SFSCs, selected through purposive sampling to reflect a diverse set of sustainability priorities. Interviews lasted between 45 and 60 minutes, were recorded with consent, and transcribed verbatim. Thematic saturation was reached after seven interviews. A six-step inductive thematic analysis was applied using Atlas.ti to identify recurring support mechanisms. An overview of the methodological approach is presented in Table 2, with the coding process detailed in Table 3.

Table 2 Methodological process

Theoretical Foundations	Resource-Based View (Barney, 1991); Stakeholder Theory (Freeman & Phillips, 2002)
Research Design	Qualitative > exploratory focus; Semi-structured interviews
Sampling	Purposive sampling; 7 Dutch NGOs with a focus on SFSCs
Data Collection	Expert interviews; 45-60 minutes each; Audio-recorded and transcribed verbatim
Data Analysis	Inductive thematic analysis; 6-step analytical process (Braun & Clarke, 2006); Coding through Atlas.Ti
Output	14 concrete support mechanisms; 6 consolidated themes

Table 3 Inductive thematic analysis process

Analytical process step	Description
Familiarisation and reflexivity	Each transcript was read twice. The first reading noted descriptive details; the second captured reflexive observations in a research diary [36]. Real names were replaced with the pseudonyms NGO1–NGO7.
Open (in vivo) coding	Verbatim transcripts were loaded into ATLAS.ti. A further close read produced 142 initial codes, using participants' own words to retain context.
Code consolidation	Constant comparison merged semantic duplicates and grouped single-idea codes under broader labels, reducing the set to 14 refined codes ("one offering per code; no empty buckets").
Family building	Related codes were clustered with the Network View tool in ATLAS.ti, generating six provisional code families.
Theme construction	Guided by the question *"What higher-order pattern about NGO support does this family illustrate?"*, the clusters were distilled into six themes. Iteration clarified overlap, hierarchy and sequence.
Theme review and verification	Every coded extract was re-examined and, where necessary, recoded. A negative-case search tested theme boundaries, enhancing credibility.

Double reading, thorough record keeping through artefacts, and negative-case triangulation ensure matching the criteria for credibility and dependability [37]. The resulting six themes constitute a robust breakdown of NGO support mechanisms.

4. Results

Seven semi-structured interviews were analysed inductively, revealing 14 concrete NGO support mechanisms grouped under six themes, namely: (1) Infrastructure & Logistics Support, (2) Knowledge & Capacity-Building, (3) Financial & Revenue Models, (4) Branding & Market Access, (5) Policy advocacy & Brokerage, and (6) Digital & Data Tools. Radiating out from each theme are the 14 concrete support mechanisms identified in the interviews (white nodes). The connecting lines represent the average connection that the interviewees made between the mentioned support mechanisms and a specific domain or focus. Each theme is outlined below, accompanied by a brief definition table, anonymised quotations (NGO1-NGO7), and a concise interpretation. Frequencies (*n/7*) indicate how many transcripts mention a similar mechanism; these suggest salience rather than statistical evidence.

Infrastructure and logistics support: Small, fragmented shipments are, in one interviewee's words, "*the profit leak nobody likes to talk about"* (NGO4). The results in Table 4 show that NGOs tackle this issue in various ways.

Table 4 Identified mechanisms - Infrastructure & logistics

Mechanism	Definition	*n / 7*
Outsourced logistics	A shared carrier collects, consolidates, and delivers SFSC products	6

Public asset utilisation	Securing low-rent public locations to be used as depots, storage, or hubs	5
Infrastructure-gap identification	Publicly pointing out the missing pieces of infrastructure to attract and drive investors	4

Outsourced logistics gives SFSC stakeholders competitive access to professional distribution channels. NGO 3 states that a well-organised system can be the difference between failure of success. Costs fall, delivery reliability rises, and retailers receive a more direct stream of products carried by fewer trucks. Several NGOs claim to have support at a level of brokerage that bundles volumes together to become more attractive for shipping providers.

The use of public assets can be an approach to tackling fixed costs associated with warehousing (NGO1). A cost-effective combined location enables stakeholders to integrate this storage with potential light- or full-scale downstream processing. NGO2 and NGO 5 do mention that the added complexity, especially for retailers, is sometimes seen as a downside.

Out of the three mechanisms, the support for identifying gaps in the infrastructure is a much softer tool. Due to their larger networks, NGOs have been able to collect evidence and approach investors with a so-called "advocacy-by-data" approach (NGO5).

Knowledge and capacity-building: SFSC stakeholders operate with thin margins and limited managerial bandwidth. NGOs, therefore, step in as informal "extension services" (NGO4).

Table 5 Identified mechanisms - Knowledge & Capacity

Mechanism	Definition	*n* / 7
Capacity-building workshops	Regular, participant-defined training sessions	6
Impact-measurement support	Coaching in KPIs, LCA tools, CSRD adherence, and more	5
Shared and broadly carried definition of 'local'	Facilitating agreement on geographic scope and title	3

As can be seen in Table 5, Workshops and masterclasses are low-barrier offerings according to NGO3 and NGO4; however, they can come with a significant amount of hidden resource costs for organising such events. NGO3 also states that based on the feedback they collect, it becomes clear that workshops are valued less for the content than for the peer exchange for some stakeholders and stated that *"A series of HACCP training doubled as a matchmaking event where different stakeholders meet and engage".* NGOs can curate topics to ensure relevance and add focus; they can also steer towards cross-sector contact, which is a very valuable tool (NGO1).

Impact measurement tools are becoming more important for stakeholders to secure subsidies and grants, and to prove their "value" to other stakeholders in the SFSC. Nonetheless, NGO7 claims that it is a balancing act as *"without a price premium, the effort feels like pure paperwork".* NGOs that succeed here integrate carbon or animal-welfare metrics directly into market stories or procurement scorecards (NGO7 & NGO4).

According to NGO5, agreeing on a shared definition of "local" prevents greenwashing and aligns with marketing and consumer expectations. The actual transcripts reveal a lively "debate" on this topic: too tight of a radius excludes parts of the supply chain ecosystem, and a too loose definition dilutes the authenticity that shoppers pay for (NGO5).

Financial and revenue models: SFSC initiatives need funds for promotion, quality control and joint assets, a significant challenge with modest turnovers according to NGO6.

Table 6 Identified mechanisms - Financial & revenue

Mechanism	Definition	*n* / 7
Cost-sharing systems or a flat fee	A flat fee on chain turnover pooled for shared costs, e.g. logistics, branding, QA, traceability, and administration	6

Although only one mechanism came forth (Table 6), it was mentioned as an active or desired mechanism in almost all interviews. The sharing system illustrates the dilemma of under-capitalised networks: without a predictable budget, even basic services falter; yet charging a percentage feels risky to farmers used to very thin profits (NGO1, NGO5, NGO6). Successful NGOs support in phasing this system in gradually, proving value (e.g. new retail placement) before moving towards collecting a full share.

Branding and market access: Marketing success hinges on balancing stories with quality and the consumer's shopping experience (NGO4). Table 7 shows the key identified mechanisms aimed at tackling these issues.

Table 7 Identified mechanisms - Branding & marketing

Mechanism	Definition	*n* / 7
Cluster replication	Taking a successful "local shelf" blueprint and rolling it out region-by-region	4
Producer- v shelf-price balancing	Tools to reconcile fair farm gate prices with competitive consumer prices	3
Convenience + storytelling	Pairing click-and-collect or pre-prepped produce with rich narratives.	3

Although mentioned by four NGOs, cluster replication is always mentioned alongside the potential risks: once a pilot shelf proves itself in one supermarket chain, NGOs support with documenting planograms, POS material and supplier specs, then port them to the next town with minimal tweaks which, if not successful, could ramp up costs significantly (NGO2). Price-balancing calculators visualise how promotions, margin splits or pack-size tweaks affect both farm income and till price-critical to avoid "local premium fatigue" (NGO2 and NGO4). Convenience and storytelling recognise two consumer segments: hurried weekday shoppers who want pre-cut produce, and weekend "food explorers" who scan a QR code for field photos and detailed information on origin and content. Combining the two maximises reach without diluting authenticity, creating aversion can be a real challenge (NGO1).

Policy, advocacy, and brokerage: NGOs occupy a middle ground between (undesired) activism and formal lobbying (Table 8).

Table 8 Identified mechanisms - Policy & advocacy

Mechanism	Definition	*n* / 7
Multi-actor brokerage	Convening with multiple sets of stakeholders to drive towards win-win deals	6
Policy-advocacy	Campaigning for local-first procurement, agile zoning, or lenient permits	5
Supermarket process simplification	Negotiating lighter onboarding, shorter terms, and clearer fees	3

According to NGO3, brokerage is a way to "fast-track" agreements that would otherwise stall. An example of this given by NGO7: "*We connected a local high school and a set of regional farmers and producers, they have now made an agreement in which the school cafeteria tailors its demand based on local availability of produce"*. NGOs supply a neutral facilitation whilst leaving the "real work" up to the actual stakeholders.

Advocacy is labelled as a tricky but critical one, according to NGO2. Multiple NGOs believe that it can be the way towards systemic change, although they notice a level of scepticism with their network of SFSC stakeholders, as the actual effect for each individual stakeholder is often unclear (NGO2 and NGO6).

Digital and data: Transparency is both a selling point and a performance-discipline device (NGO4).

Table 9 Identified mechanisms - Digital & data

Mechanism	Definition	*n* / 7

(public) KPI dashboard	Real-time metrics on CO_2 per kilo, payment speed, and NPS, are visible to all relevant members of an SFSC	3

Dashboards and traceability technology (Table 9) (e.g. Blockchain) keep promises honest. "*When a farmer looks at our dashboard and notices their payment-speed dials turning amber, he or she knows their reputation is at stake"*, says NGO4. When CO_2 scores drop, farms can spotlight efficiency gains in marketing (NGO6). NGOs act as neutral data stewards, setting common definitions and verifying uploads.

5. Discussion

5.1. Discussion of supporting mechanisms

The results highlight areas of linkages and those that are independent of others. For example, outsourcing logistics appears alongside supermarket process simplification: respondents view physical and administrative access to shelf space as inseparable barriers that must be tackled together. Similarly, capacity-building workshops are often discussed in conjunction with support for impact measurement. This suggests that many NGOs have begun to integrate training and gathering evidence into a single package. There is also a connection between producer prices and shelf prices, as well as the convenience/storytelling mechanisms. This suggests that elements such as fair farm returns, consumer value, and engaging provenance narratives are negotiated simultaneously rather than one after another; therefore, they are tackled at once by NGOs.

In contrast, there is a small number of mechanisms that have no direct linkage with other forms of support. The cost-sharing system stands alone and is the only support mechanism within the financial & revenue model theme. The same goes for digital and data tools. Their separate positions suggest that individual NGOs not only focus on broad impact, but also on specific niches, such as experimenting with innovative funding models or integrating rapidly evolving digital tools and software in an effort towards significant transparency within the chain. The interviews reveal that Dutch NGOs are acting as "facilitators" and "connectors" for SFSCs. The six themes portray each organisation as a multi-functional intermediary rather than a single-issue actor, echoing patterns seen in other European collaborative supply chains [22].

Logistics dominated most conversations. Fragmented, low-volume distribution was marked as a make-or-break scenario for most stakeholders in SFSCs [12]. This research shows that NGOs partly close this gap by brokering shared-load contracts, negotiating favourable rents for public space, and mapping "missing-link" infrastructure. Outsourcing to a third-party carrier streamlines operations, yet reduces producer control [19,23], whereas running a municipal hub preserves autonomy but demands new coordination, an efficiency–autonomy trade-off also noted by Renting, Marsden and Banks (2003) [22].

Workshops and masterclasses remain the staple knowledge tool, echoing earlier findings that SFSC actors rely on peer-to-peer learning rather than formal extension services [7,17]. Several respondents, however, voiced "workshop fatigue", a phenomenon likewise reported by the work of Connelly et al. (2011) [16]. While training retains value for networking, the persistent absence of cost-sharing schemes means many initiatives still depend on short-term grants, leaving the finance pillar underserved [10].

NGOs cast themselves as scaling agents within branding and market-access work. In the broader sustainability literature, a scaling agent is an intermediary that codifies a thriving local practice, assembles the resources needed to replicate it elsewhere, and then orchestrates the network relations that allow diffusion at speed [38,39]. Typical tasks include transforming tacit knowledge into step-by-step "playbooks", securing shared funding for promotional rollouts, and fostering trust between early adopters and new entrants [40]. In the food sector, this often translates into templated point-of-sale materials, pre-negotiated logistics contracts, and standard operating procedures that supermarkets can implement in any new region [6]. Hence, the roll-out of proven "local-shelf" concepts, as described by [7,11], fits this scaling-agent role precisely. Yet, as practitioners in the present study emphasised, even the most polished template must still navigate a three-way negotiation between price, provenance and convenience, which is a balancing act for which no universally successful formula yet exists [26,31]

Policy work was dubbed "boring but crucial". Farmers doubt that lobbying moves farm-gate prices, yet they credit NGOs with prizing open municipal procurement and defending market stalls threatened by zoning changes [41]. This

aligns with evidence that local procurement rules and zoning decisions can either unlock or constrain SFSC growth [10,15]. However, producers tend to doubt that lobbying makes its way to the farm itself [7,42]. Based on the interviews, it does seem that these "sceptic" stakeholders do understand that there has been success in the past and that, therefore, it should not be disregarded entirely.

Despite their potential, digital tools remain underutilised in SFSCs. While several interviewees from NGOs highlighted examples such as KPI dashboards and traceability systems, more advanced innovations, including IoT applications, Blockchain, or AI-based forecasting, remain absent for most parts of the SFSCs that participated in this study. Various factors hamper adoption, as also reported in the literature, including limited digital literacy among older producers, high integration costs, and a lack of interoperability between systems [43]. Unlike global supply chains, where large-scale logistics and enterprise systems drive digitalisation, SFSC actors often lack the scale, time, and capacity to invest in such tools [44,45]. These constraints result in a digital divide that leaves many smaller producers disconnected from emerging smart supply chain solutions.

Still, it remains clear that digitalisation is relevant across all support domains. In Infrastructure and Logistics, digital tools such as route optimisation and shared inventory systems could mitigate the inefficiencies of fragmented distribution [3,44]. In Knowledge and capacity-building, online training platforms and digital (peer) learning tools could tackle the mentioned "workshop fatigue" while upskilling stakeholders for data-driven collaboration (45). For financial and revenue models, transparent cost-sharing could be facilitated through digital accounting dashboards or smart contracts [43]. In branding and market access, technologies like QR code storytelling and digital product passports can help connect provenance with convenience [23]. Policy and advocacy work could benefit from data aggregation tools and visual dashboards that strengthen evidence-based lobbying [42,44]. Even the digital and data theme itself can be seen as an enabler of cross-theme rather than a standalone function. NGOs, therefore, have an opportunity to act as digital intermediaries, curating accessible, interoperable solutions that reinforce transparency, trust, and coordination.

Unlike in global chains, where digitalisation often serves top-down reporting and compliance [41,42], its role in SFSCs could be transformative in a bottom-up way by empowering producers, strengthening storytelling, and improving chain coordination. These insights align with the broader concept of smart food supply chains, where digital tools contribute not only to efficiency but to inclusivity and sustainability [43,45]. Future research should investigate how NGOs can tailor and scale digital innovations that match the realities and values of SFSCs.

5.2. Comparing the Short and Global NGO Situation.

NGOs play a role in supporting food systems in both global and alternative food supply chain structures. The primary difference appears to be in their philosophy and the scope of their interventions. In the global food supply chain, they often strive to improve sustainability, security, ethics, and resilience. This includes addressing issues like the human right to food, environmental impact, and food waste. In our work, it becomes clear that NGOs in SFSCs often fall outside the global scope and instead focus on supporting supply chains that aim to initiate something beyond the traditional long supply chains, promoting direct producer-consumer relationships. In global food supply chains, advocacy and lobbying are crucial, as pressuring multinational corporations and governments to adopt more responsible practices, fairer trade policies, and stronger regulations (e.g., against land grabbing, for better labour conditions) is a key activity within these NGOs and is valued by stakeholders whom they impact [41,42]. Although policy and advocacy are recognised components in SFSCs, their impact on supporting actors, particularly farmers, is in question, as shown in our results.

In global food supply chains, many NGOs are focused on developing and promoting standards such as Fair Trade, Rainforest Alliance, or organic certifications to influence consumer choices and corporate behaviour. Surprisingly, this was not explicitly stated in the results presented here; however, the NGOs for SFSCs mention the support for finding suitable markets and generating market access for their participants. Reinforcing a bottom-up approach and setting participatory guarantees for local markets might be a future consideration as a support mechanism, but it was not mentioned across the current offerings. In relation to collaboration models, global food supply chains are often known for collaborating with large businesses to implement CSR initiatives, improve sourcing, and enhance transparency (though this can sometimes be controversial) [46,47]. In SFSCs (as shown in Table 1), collaboration models and structures are diverse, sometimes involving interactions between a producer and a consumer, or sometimes

intermediaries in the offerings. The support that NGOs provide would depend on the structure and needs of the food supply chain type, in both global and local contexts. Research and Monitoring, such as investigating and exposing unsustainable practices, contributing to public awareness and accountability, is a key consideration for global food supply chains [25,44]. However, in short food supply chains, this research approach appears less utilised and may require more effort and a bottom-up approach to consider the needs of stakeholders across the chain.

6. Conclusion

This study addressed a knowledge gap by identifying the support mechanisms NGOs provide to Short Food Supply Chains (SFSCs) within the Dutch context. The central research question: What supporting mechanisms do NGOs provide to short food supply chains to improve their economic, environmental, and social performance? was answered through an inductive analysis of expert interviews, revealing a framework of intervention. The findings indicate that NGOs serve as multifunctional support intermediaries, extending beyond single-issue advocacy to provide a comprehensive suite of support mechanisms. This support is clustered into six key themes: (1) Infrastructure & Logistics, (2) Knowledge & Capacity-Building, (3) Financial & Revenue Models, (4) Branding & Market Access, (5) Policy, Advocacy & Brokerage, and (6) Digital & Data. The research highlights that NGOs in the SFSC space primarily function as "facilitators" and "connectors". Rather than simply providing resources, they build the collaborative architecture necessary for these chains to be successful. The results also suggest that underlying tensions shape the delivery and reception of NGO support. The research found a negotiation between stakeholder autonomy and collective coordination, as well as a pragmatic preference for tangible support (e.g., logistics) over more abstract, procedural interventions (e.g., impact measurement), even when the latter may offer greater long-term benefits. Additionally, the findings demonstrate their alignment with the established role of NGOs in global food supply chains. While NGOs in the global arena often focus on reforming existing systemic issues through certifications, supporting food security, and high-level lobbying, which are all problems going forward, the NGOs in our study are dedicated to building an alternative system from the ground up through practical, hands-on support tailored to the immediate needs of local stakeholders. While this study offers a clear framework, its findings are based on a small sample of seven Dutch NGOs, which limits generalisability. Although sufficient for thematic saturation, the focus on organisations already active in SFSCs may overlook peripheral or critical perspectives. To validate and extend these insights, future research should include a broader range of NGOs across different regions and roles, and assess the tangible impact of support mechanisms from the perspective of farmers, producers, and other key stakeholders.

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