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Diverse economies and food democracy: implications for sustainability from an interdisciplinary perspective

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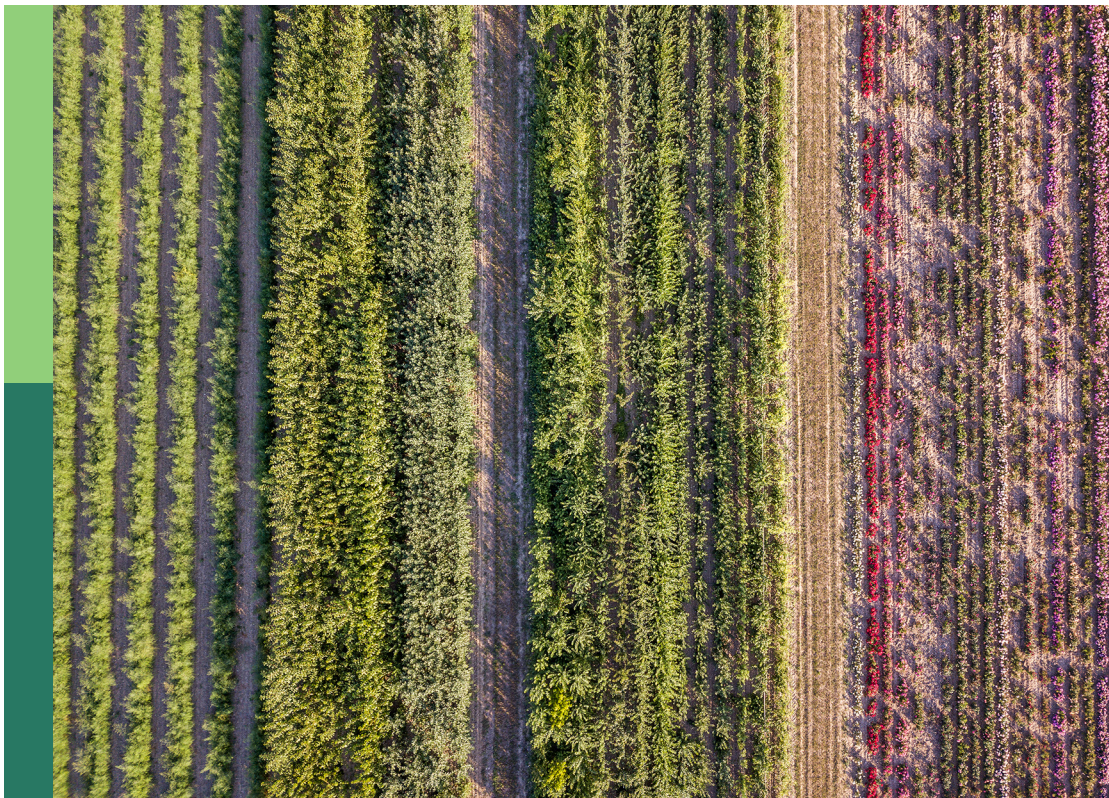

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Diverse economies and food democracy: implications for sustainability from an interdisciplinary perspective

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Editorial: Diverse economies and food democracy: implications for sustainability from an interdisciplinary perspective

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Editorial on the Research Topic
Diverse economies and food democracy: implications for sustainability from an interdisciplinary perspective

Social movements have long argued for democratizing decisions about how food is produced, processed, distributed and consumed, and scholarly interest in such issues has recently been increasing. Yet questions remain as to what food democracy practically entails, how it is related to similar concepts such as food sovereignty, and how it affects the environment. Yet it largely remains unclear what food democracy practically entails, how it is related to similar concepts such as food sovereignty, and how it affects the environment. When publishing the call for papers that build this Research Topic, we wanted to support a deepening of the discussion on these three challenges by bringing together new perspectives on food democracy, understood as forms of joint decision-making by food producers, consumers, public authorities, and stakeholders, at various scales.

The 11 papers of this Research Topic cover multiple aspects of food democracy, five with a conceptual focus (Jani et al., Plank et al., Leitheiser and Vezzoni, Anderson, Tilzey) and six that present conceptually-informed empirical case studies.

Jani et al. outline the methodology of a Horizon EU project called FEAST highlighting the complexity, heterogeneity and fundamentally unpredictable character of agro-food system transformations, as well as the justice aspects involved. The authors argue for food democracy as a heuristic in the sense of "solutions that can flexibly account for different contexts, preferences and needs." By interpreting food democracy substantively and related to problem-solving potentials of democratic procedures not limited to voting and formal representation, "[w]ithin food systems," they state, "food democracy could be a heuristic solution that provides the processes and can form the basis for driving just transitions."

Plank et al. shed light on the intricacies of such processes. Moving away from the language of governance employed by Jani et al., they propose a new theoretical model for food regime change integrating critical state theory, the social capital concept, and territorial approaches. By drawing attention to the role of the state in the context of shifting articulations of cooperation and conflict with regard to agro-food systems and their transformations, Plank et al. address an important lacuna in much food system research.

In a somewhat similar way, Leitheiser and Vezzoni grapple with the question of how to better address the real-world complexity and ambivalence of agro-food system transformation going beyond generic claims regarding alleged alternatives. By developing a novel framework for investigating the kinds of citizenship different types of approaches to food system change perform and promote, Leitheiser and Vezzoni are able to unpack the diversity of transformation initiatives. In doing so, they also sharpen our understanding of the concrete meaning of food democracy.

Anderson takes a more explicitly political view of agro-food system transformation and the role of democracy for it, emphasizing the crucial distinction between substantive and formal democracy that Jani et al. also address. By asking about the character of the public that is supposed to be the democratic sovereign, Anderson points out "that food democracy requires the existence of alternative ways of producing and obtaining food beyond the outlets owned by the largest corporations, and must try to establish and maintain alternative social innovations," as the concept of food sovereignty is advocating.

This perspective is theoretically further elaborated and grounded in critical state theory in the paper by Tilzey. Similar to Anderson, Tilzey questions a superficial understanding of food democracy that neglects societal relations of domination and exclusion, instead arguing "for a 'radical' political agroecology as substantive food democracy," further pursuing the articulation of food democracy and food sovereignty. Tilzey investigates the potentials, challenges and partial successes of "the precariat, peasantry, and indigenous people of the global South that may be pivotal" as "counter-hegemonic classes" exploiting "weaknesses in the state-capital nexus." Food democracy, in the deepened, substantively enriched, radical understanding of both authors, is fundamentally contradicting and thus incompatible with the commodification of food.

Moving to the empirically grounded studies in the Research Topic, Degens and Lapschieß provide an in-depth analysis of an alternative mode of producing and obtaining food, such as those advocated for by Anderson. Their paper critically reviews the potential of German CSAs to democratize food systems. Drawing on Dewey's concepts of the public and democratic experimentalism, they argue that CSAs constitute diverse food democratic experiments in themselves, and yet whilst the CSA movement strives to be as inclusive as possible, the practical and pragmatic challenges of building solidarity between those in very different positions (e.g., consumers, compared with growers) remain entrenched.

Staying with the topic of non-corporate food systems, Pungas provides insights into the dacha cooperatives and gardeners in Eastern Estonia, who still produce fresh and healthy food through self-provisioning, without being "professional" farmers or smallholders. Working with concepts of participatory, deep, thin, strong and open democracy, Pungas notes that dachas encompass essential characteristics of the "Western" concept of food democracy but cautions against excessive optimism and romanticization of such local food communities as they tend to remain exceptions and risk extinction unless valorized and reshaped through public discourse.

Picking up on the role of the local state, Hoinle and Klosterkamp explore the concept of food justice and its interlinkages with food democracy in relation to public catering in Southern Germany. They argue that school food is an inherently social justice issue, and that local municipalities, via public food procurement could provide an important leverage point for promoting sustainable food, accessible to all. They find that the means to facilitate more just and sustainable access to school food are still underexplored and the actual spaces for democratic participation to foster such developments are missing; the voices of pupils and parents are often unheard and the care work involved in food preparation is largely un-recognized in society more widely.

Continuing the theme of democratic participation, Horstink et al. provide a richly detailed study of Odemira, in Portugal, a region they characterize as the "epitome of the clash of agricultural models in Europe." Drawing on participatory rural appraisal methodology, the authors argue that despite the EU's green objectives, there is still heavy investment in destructive monocultures. In the case of Odemira, traditional, peasant, smallholder farmers are increasingly being cut off from access to markets, essential resources like water, and technical and institutional support. The research identified tension between political support for the neoliberal capitalist hyper-industrialization and hyper-specialization of agriculture aimed at global markets, and the lack of democratic, institutional or legal mechanisms for local small-scale farmers to influence decision-making.

Deepening attention to economic activities, Middendorf and Herzig draw on an integrative literature review to argue that actors engaged in economic activities and striving for food sovereignty have been overlooked in food sovereignty discourse. They suggest this could be because the historical origins of the movement focused on primary producers and so supply chain actors, such as food processors were often neglected. This blind spot around supply chain perspectives may also stem from negative associations with corporations, or with food processing in general. The paper synthesizes the literature into i) the conditions that shape economic activities striving for food security, ii) economic-related characteristics of actors and iii) organizational characteristics. The authors thus position their paper as a first step in including the organizational level and role of economic actors in food sovereignty studies and food system transformation.

In South Africa, Lukwa et al. examine the role of Rotating Savings and Credit Associations (ROSCAs), known locally as stokvels. These are informal, often women-led savings and borrowing groups and the study explores their potential to address dietary changes and promote healthier eating practices in low-income, urban settings. Based on stakeholder interviews, the paper argues that stokvels are perceived as vital social and economic entities, but due to their informal nature, they are not often able to partner with formal institutions. The findings suggest that stokvels are not necessarily aligned with food security and nutritional objectives, and highlights that their focus is often economic benefits and immediate food availability rather than the long-term health value of the food procured.

This SI explores the concept of food democracy through conceptual and empirical studies but leaves critical gaps, particularly regarding the environmental implications of such

systems. Key questions remain: Does small-scale, democratically organized food production reduce GHG emissions, biodiversity loss, or nutrient runoff? Under which conditions might respective potentials be unlocked? Can these systems scale to meet global food demands, or do they for example require conditions like dietary shifts in overconsuming regions—facilitated by integrated and systemic perspectives? Additionally, questions about the agricultural yields of these systems, as well as their stability and resilience over time, remain critical for evaluating their viability as alternatives to industrialized food systems. Beyond these socio-ecological considerations, there is a need for research that delves deeper into the mechanisms of triggering, sustaining and scaling systemic change, in particular under increasingly authoritarian political economic conditions, for which some of the papers of this SI might provide relevant theoretical tools. How can initiatives to democratize food systems expand under such conditions, or, conversely, can they serve as catalysts for broader societal transformation toward a more democratic, inclusive, and environmentally sustainable future?

The topic of food democracy points toward a planetary perspective but the SI reproduces the geographical bias in published research featuring Global North cases. Five of the contributions investigate cases in Europe (Horstink et al., Hoinle and Klosterkamp, Pungas, Degens and Lapschieß, Middendorf and Herzig) and only one in Africa (Lukwa et al.). Anderson and Tilzey refer to the USA and Latin America, respectively. How can research and publications practices be changed in order to address this imbalance in future?

This SI provides examples that might challenge the pessimism of Adorno's famous quote from *Minima Moralia*, suggesting that change is indeed possible. However, this situation also compels us, as editors, to reflect critically on the context in which we operate. The increasing commodification of scientific knowledge and the use of public funds to benefit private companies are trends that cannot be ignored. Despite these challenges, this SI provides numerous insights, conceptual advances and rich empirical case studies, and we hope these will inspire further critical inquiry into food systems that are democratic, equitable, and environmentally sustainable.

Author contributions

AE: Conceptualization, Writing – original draft, Writing – review & editing. MK: Conceptualization, Writing – original draft, Writing – review & editing. AM: Conceptualization, Writing – original draft, Writing – review & editing.

Conflict of interest

The authors declare 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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Transitions to food democracy through multilevel governance

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Food systems in Europe are largely unjust and not sustainable. Despite substantial negative consequences for individual health, the environment and public sector health and care services, large multi-national corporations

continue to benefit from the way food systems are designed—perpetuating "Lose–Lose–Lose–Win" food systems that see these large corporations benefit at the expense of health, the environment and public sector finances. Transitioning to "Win–Win–Win–Win" food systems is challenging because of the heterogeneity, complexity and unpredictable nature of food systems—one-size fits-all solutions to correct imbalances and injustices cannot exist. To address these challenges, we propose the use of heuristics—solutions that can flexibly account for different contexts, preferences and needs. Within food systems, food democracy could be a heuristic solution that provides the processes and can form the basis for driving just transitions. However, ensuring that these transition processes are fair, equitable, sustainable and constructive, requires an approach that can be used across vertical and horizontal governance spheres to ensure the voices of key stakeholders across space, time and spheres of power are accounted for. In this manuscript we outline a new Horizon project, FEAST, that aims to use multilevel governance approaches across vertical and horizontal spheres of governance to realize constructive food democracy. We envisage this as a means to inform just processes that can be used to design and implement policies, in line with food democracy, to facilitate transitions to "Win–Win–Win–Win" food systems across Europe that makes it easy for every European to eat a healthy and sustainable diet.

KEYWORDS

food systems, food democracy, multilevel governance, just transitions, health, sustainability

Introduction

The complex, non-linear nature of food systems belies simple solutions to supporting transitions to make them fair and sustainable. As with all complex systems, food systems have internal drivers that are influenced by external factors. A multitude of actors working across different scales of space and time with heterogeneous values and processes drive decisions about technologies, labor relations, prices, product range, the places of agriculture, processing and distribution, and the logistics of commodity chains as well as imaginaries of food and agriculture that help to stabilize specific spatio-temporal relations within the food system. Resulting contradictions, antagonisms and dilemmas constitute fundamental uncertainties within food systems (Jessop, 2016). The inability of actors in the food system to identify, understand or predict the intended or unintended consequences of their actions as well as the occurrence and/or impact of external events (e.g., wildfires, droughts, war, inflation) provides another area of uncertainty (Meadows, 2008; Marro, 2014). In complex systems, transitions occur at thresholds or "tipping points" that are characteristic of the system. Because of the nonlinear nature of complex systems, it is extremely difficult to predict what the tipping point will be, when it will occur or the response of system components, i.e., actors including non-human beings such as pests, natural events, and their multiple sociospatial relations. When and how transitions develop and what the impact will be on the system represents a further area of uncertainty (Fieguth, 2017).

The aggregation of these factors means that we will be fundamentally uncertain of how food systems will evolve even if the strategies of all actors involved were known.

Despite the lack of certainty on the exact composition of our food systems or their tipping points, something that we can be more certain of is that food systems have imbalanced power relations and incentive structures that could impact the thresholds at which tipping points are reached as well as the recovery of the system in response to internal and/or external shocks. In Europe, food systems largely deliver a "Lose–Lose–Lose–Win" where large food corporations "win" at the expense of enormous negative consequences, and thus a "Lose", for the environment, health and the public sector (FEAST, 2022).

At the level of the environment, the global food system is responsible for 26% of global greenhouse gas (GHG) emissions, 50% of global habitable land use, 70% of freshwater use, 78% of eutrophication and 60% of biodiversity loss (Leip, 2005; Whitmee et al., 2015; Poore and Nemecek, 2018; Ritchie and Roser, 2020; Xu et al., 2021). In the European Union

(EU), the agricultural sector is responsible for 10.3% of GHG-emissions and if we include the impact derived from imports, the environmental impact of the EU's food system will be even greater (Leip, 2005; Berkhout et al., 2018). Food systems and dietary behaviors also play a critical role in perpetuating preventable diseases. Consumption of poor-quality diets is increasing in Europe and it is the leading cause of death and a top contributor to Non-Communicable Disease (NCD) burden (Lobstein, 2018; Branca et al., 2019; Willett et al., 2019). Approximately 75% of all diseases and 85% of all deaths in Europe can be attributed to NCDs. In addition to the burden on individuals, EU governments spend about €700 billion annually to treat NCDs—which is about 70% of the ~€1 trillion (7–10% of GDP) EU governments spend annually on healthcare (ECDA, Internet; World Health Organization, 2021). Food systems have also contributed to creating, entrenching and widening health inequalities across the EU because of food deserts and food poverty that see subgroups of the population having differential access to and ability to choose healthy and sustainable food that can help them maintain their health, prevent disease and contribute to a healthier environment (Allcott et al., 2019).

Despite the negative impacts of the food system on the environment, health and public sector, the food industry has been remarkably profitable. Allen et al. (2019) found that transnational companies in the food industry earned billions with substantial profit margins (processed foods—sales: ~$350 billion, ~7% profit margin; soft drinks—sales: ~$100 billion, ~14% profit margin; fast food—sales: ~$75 billion, ~13% profit margin). The food industry actively perpetuates poor diets by marketing foods that are high in calories, fat, sugar and salt, especially to vulnerable groups such as minors and lower socio-economic demographics (Backholer et al., 2021). Furthermore, through tactics including interfering with legislative process, using front groups to act on their behalf and public relations campaigns designed to make them appear responsible in the eyes of the public and policy-makers, the food industry blocks or stagnates governmental attempts to prevent and limit NCDs through measures such as controls on advertising and increased tax on food products high in fat, sugars and salt (Cowling and Magraw, 2019). It is important to note that most of the benefits of the current dietary trends go to large transnational companies; small companies and primary producers, especially small farmers, do not benefit with the average EU farmer earning ~50% of the average worker in the economy (EU Commission F2F strategy, 2020).

Correcting the imbalances and injustices of food systems, within the context of fundamental uncertainty, requires flexible approaches that can accommodate place-specific socio-spatial relations across space, shifting political, economic, social and cultural conditions as well as changing temporalities, including temporal horizons of actors' strategies. Such approaches have become an integral feature of "the EU as a real-time laboratory for trial-and-error experimentation in governance" (Jessop, 2016, p. 27) and should be focused in terms of democratizing the food system in order to promote food justice, thus ensuring healthy, sustainable, affordable and culturally appropriate food for everyone.

Dealing with fundamental uncertainties: The role of heuristics

The outcomes that result from a given set of system components, dynamics, and environments are not predictable and will be place-specific and dynamic. Though knowledge and methods exist to collect data on how different elements interact within a small part of a system, this information does not yield insights to enable accurate predictions on outcomes within the system on the whole, including the tipping points that, if reached, can destabilize it (Mousavi and Gigerenzer, 2014; Katsikopoulos et al., 2021).

Within complex systems, studies have shown that heuristic solutions, simple "rules of thumb", can outperform complex algorithms based on big data models, which can sometimes lead to overfitting, which occurs when big data-led statistical models fit against the data used to train the model (Mousavi and Gigerenzer, 2014). Heuristics (efficient, fast and frugal cognitive processes) can be adapted to decision-makers' place-specific conditions and can avoid overfitting, reduce resources required to make decisions while also supporting more accurate judgements (Gigerenzer and Gaissmaier, 2011). Some examples of heuristics include (Mousavi and Gigerenzer, 2014; Katsikopoulos et al., 2021):

- 1/N rule: For investors, allocating resources equally to N alternatives can help to diversify portfolios and has been shown to outperform optimal asset allocation portfolios.
- Tallying: For estimating criteria, counting the number of positive cues, rather than trying to estimate weights, can lead to predictions that are as accurate or better than multiple regressions.
- Satisficing: For decision makers, exploring alternatives and selecting the first option that exceeds his/her aspiration levels can lead to better choices compared to chance.

Though we can be certain that our food systems are unfair and unsustainable, given that they are complex and non-linear means that the approaches that can be used to make them fair and sustainable will have to be simple and flexible enough to adapt to different and place-specific

conditions over space and time. In this manuscript, we propose food democracy as heuristic solution that can be used by stakeholders at all spatio-temporal scales and in all parts of the food system to manage complexity while driving desirable shifts toward fair and sustainable food systems that deliver a "Win–Win–Win–Win".

Food democracy: A heuristic solution with complexities

Democracy can be defined as "a way of making binding, collective decisions that connects those decisions to the interests and judgements of those whose conduct is regulated by the decision (Cohen, 2007; Szulecki and Overland, 2020)."

Justifications for democracy can either be instrumental (i.e. democracy delivers the best results) or procedural (i.e. democratic processes are ideal because they allow for greater representation across a population) (Tonello, 2020). In this manuscript, we are concerned only with the procedural aspects of democratic processes—namely, that democratic orientations can be realized by devolution of decision-making to local levels away from elite and centralist-driven governance and government through a variety of forms including cooperatives, civil networks, and alternative/networked governance structures that may contribute to rearticulating different spatial-temporal scales to foster decisions ensuring healthy and sustainable food for everyone (Szulecki and Overland, 2020).

As with any social processes, different stakeholders, over space and time, will have different conceptualisations of values (e.g., democratic orientations of justice and sustainability) and failing to account for this can lead to counterintuitive outcomes (Tschersich and Kok, 2022). For example, democratic processes can:

- increase existing inequalities because people who are more likely to participate are already privileged and able to invest the resources needed to participate (Szulecki and Overland, 2020);
- lead to private sector policy capture (Szulecki and Overland, 2020; Tschersich and Kok, 2022);
- lead to "state encroachment" and undesirable regulations that increase bureaucracy and inefficiencies (Szulecki and Overland, 2020);
- lead to the pursuit of short-term goals that can manifest in "food populism"; borrowing from the literature on "energy populism", "food populism" can be framed as "a political discourse that pits the supposed interests of "the people" against "the elites", often combined with resource nationalism, suboptimal but popular economic solutions such as subsidies, and promises of an easy life (Szulecki and Overland, 2020)".

Given "the tendency of all forms of governance and associated policies to fail (market failure, state failure, network failure, or collapse in trust)" (Jessop, 2016, p. 16), food democracy as a heuristic does not necessarily lead to a stable, healthy, just, and sustainable food system, but rather facilitates the ongoing moderation of "contradictions, dilemmas and antagonisms" (ibid., p. 26), which always remains partial and provisional, in a "contested process, involving different economic, political, and social forces and diverse strategies and projects" (ibid.).

Notwithstanding the risks, as a heuristic, food democracy can deliver many benefits while also helping to overcome some of the aforementioned risks. Deliberative democratic processes that are the foundation of food democracy require that all citizens are given equal freedom to speak and contribute to shaping their food system (Held, 2006). Shifts to these modes of decision-making within food systems can give citizens a sense of ownership and responsibility because they are engaged "…in fashioning the nature of the food system and as a consequence strengthening their civil lives as citizens (Heldeweg and Saintier, 2020; Szulecki and Overland, 2020)." This in turn can yield several positive outcomes including:

- just and equitable representation and ensuring that marginalized voices are heard (Szulecki and Overland, 2020; Pike, 2007).
- addressing and redirecting power imbalances (Szulecki and Overland, 2020; Tschersich and Kok, 2022).
- a greater engagement in civic affairs (Barber, 1984).
- tolerance for opposing points of view (Gutmann and Thompson, 1996).
- increase in the community's social capital through more informed decision-making (Fishkin, 1997; Putnam, 2000).

These outcomes in aggregate can drive a "creative reconfiguration of social relations" and their spatial as well as temporal dimensions that increase social cohesion and can lead to more effective innovations to address problems faced by food systems, while also addressing some of the risks of private sector policy capture and sate encroachment (Szulecki and Overland, 2020; Tschersich and Kok, 2022). Furthermore, deliberative processes can lead to more effective and innovative solutions because of the "pluralities of knowledge" represented by the diverse stakeholders involved in these processes (Tschersich and Kok, 2022). Bringing together this cognitive diversity can aggregate, align and codify latent knowledge within the community that can yield insights that will be superior to the knowledge that could be provided by individual or small groups of experts (Ober, 2008; Landemore, 2013; Surowiecki, 2004; Hong and Page, 2004; Page, 2007). It can also help to navigate some of the problems seen with "food populism".

Food democracy can give stakeholders a voice in shaping their food systems but it must be implemented and managed

carefully to ensure it does not perpetuate undesirable food systems through unsustainable and unjust "organizational, institutional and spatiotemporal fixes" (Jessop, 2016, p. 16).

Operationalising food democracy and avoiding its pitfalls: The role of multilevel governance

Ensuring that food democracy is realized as a constructive heuristic solution, especially for vulnerable groups, requires processes that incorporate the constant reflection and adaptation needed to address power imbalances and incorporate perspectives on justice (Tschersich and Kok, 2022). Furthermore, considerations on dilemmas, contradictions and antagonisms as well as tradeoffs and unintended consequences are essential to avoid creating or perpetuating injustices. For example, an approach that delivers benefits in one context, or point of time, could lead to injustices for stakeholders in a different context or for "distant voices" who are not able to participate in the democratic processes (Meadows, 2008; Tschersich and Kok, 2022; Jessop, 2016).

There are a variety of approaches that could be used to rearticulate different place and socio-temporal scales of decision-making to support food democracy. One such approach, multilevel governance (MLG), has been used in a variety of domains including urban sustainability, energy infrastructure and climate change adaptation (Liesbet and Gary, 2003; Bulkeley and Betsill, 2005). At its core, MLG results in the distribution of decision-making authority through a heterarchy that manifests in a shared and integrated mode of decision-making across multiple dimensions including: different scales of governance reaching from micro to meso; between and within different sectors (e.g. food systems vs energy or within a sector, for example, within food systems the distribution of decision-making authority between producers, distributors, retailers, consumers); and between different resource stewards within and across the aforementioned dimensions (Marzeda-Mlynarska, 2011).

MLG's origin and evolution was based on a recognition of the limitations of other modes of governance; it was, therefore, a means to an end rather than an end in itself. The most well-recognized example of this is within the EU where an opposition to state-centric modes of governance led to an approach that would facilitate different types of stakeholders contributing to and making governance decisions (Liesbet and Gary, 2003; OECD, 2010). This yielded four key characteristics (Marzeda-Mlynarska, 2011):

- Involvement of transnational, national and subnational stakeholders.
- Institutional relationships driven by negotiations and networks as opposed to constitutions and legal frameworks.
- An important role for non-governmental bodies.
- A flat and open decision-making structure as opposed to one driven by pre-defined hierarchies.

MLG can generally be disaggregated into two subtypes. MLG-Type I, normally focused on policy outcomes, is carried out along vertical governance axes that have well-defined tiers and a limited number of, usually government, entities that have shared decision-making powers (Liesbet and Gary, 2003; Bulkeley and Betsill, 2005; OECD, 2010; Saito-Jensen, 2015). MLG-Type II, or "polycentric governance" focused on particular issues, is carried out along flexible horizontal governance axes and forms (e.g., state and non-state governance) where organizational boundaries are blurred, or even disappear (Liesbet and Gary, 2003; Bulkeley and Betsill, 2005; OECD, 2010; Saito-Jensen, 2015).

Though MLG is not very common in practical attempts to promote food democracy, the examples that have proven to be successful, such as the Denmark-Aarhus-Copenhagen initiative on vertical integration of sustainable food procurement, demonstrated sustainable impact (Gradziuk et al., 2022). Given its key characteristics, MLG is also a potentially powerful mechanism that can be used to realize and support the deliberative processes that underpin food democracy. In so doing, FEAST attempts to contribute to a change in sociospatial relations in specific places and on different sociospatial scales in the sense of action research, i.e. gaining scientific data that also serves to change mindsets and relations of those involved in the project as stakeholders (Rauch, 2014). In this way, the project will also collect further information on barriers to change. Therefore, food democracy as a heuristic within FEAST encompasses three aspects: involving a variety of key stakeholders for assessing strategies through deliberative processes that include voices otherwise neglected; changing stakeholders' mindsets and relations to foster democratic decision-making going beyond representational democracy through MLG; creating knowledge about mindsets and relations by analyzing these deliberative processes, their barriers and their outcomes.

By supporting a more equal distribution of power and formal/informal joint decision-making between different spheres of governance (including different levels of government as well as between non-governmental actors including communities, not-for-profit organizations and the private sector), MLG provides a structured perspective to incorporate the key voices that need to inform how food democracy can be used as a heuristic solution to support just and sustainable food system transitions under different conditions. Through these mechanisms, MLG can be an efficient and effective way to realize the key pillars of the deliberative aspects of food democracy including ensuring full and equitable representation

across key stakeholders in the food system, which can also contribute to providing the cognitive diversity needed to derive innovative solutions. Furthermore, by integrating different levels of governance into the identification and articulation of problem statements and solutions exploration, meso- and macro-governance scales can contribute to the creation of conditions that can support citizens to contribute deliberative processes that can overcome the barriers often seen in locked-in socio-technical systems such as incumbencies and undesirable resilience (e.g. the dominance of private sectors organizations in the shaping and functioning of food systems manifest in occurrences like policy capture driven by large multinational food companies) (Rawls, 2001; O'Neill and Williamson, 2012; Tonello, 2020).

To develop and implement experimental approaches based on MLG that can realize constructive food democracy across Europe and deliver "Win–Win–Win–Win" food systems, in July 2022 a consortium consisting of 35 partners across 15 European countries launched a Horizon Europe project called FEAST (Food systems that support transitions to hEalthy And Sustainable dieTs) under HORIZON-CL6-2021-FARM2FORK-01-15 (FEAST, 2022). A 5-year project, FEAST aims to explore how both MLG-Type I and MLG-Type II can support and enable food democracy by delivering transition processes that are empowering, allow for meaningful participation of diverse voices and perspectives while also supporting co-development of knowledge and solutions across Europe's diverse food systems.

Research and innovation activities across FEAST will be carried out through a nested mixed methods design on three broad analytical levels of governance and decision-making across the entire food system (Figure 1). These levels speak to different governance scales but are not identical with these.

MLG-Type I

MLG-Type I will be explored by investigating macro-level food system dynamics driven by government actors at different vertical scales of governance and government to better understand the role of municipal, national and EU policies in shaping the food system. The aim is to better understand how regulations, discourse, rules of the games of policy-making, as well as power dynamics can serve to enforce both progressive and regressive interests and visions. Further to this, there will be an exploration of the interaction between top-down and bottom-up mechanisms that can be used to shape and deliver policies across these vertical levels of governance.

Through these approaches, FEAST aims to deliver concrete, practical and evidence-based -policy recommendations for all levels of policy makers to support the design and implementation of food systems that enable all European citizens, particularly vulnerable groups, to easily access healthier and more sustainable diets.

MLG-Type II: Co-design and co-ownership through living labs

FEAST will utilize Living Labs to explore MLG-Type II. Living labs can be used to engage in experimental democratic approaches while accounting for context-sensitive factors that could have an impact on the realization of food democracy. To ensure representation across the EU, FEAST has identified living labs from rural areas, small/medium cities and associated large city living labs according to a specific typology of food systems that cover aspects including regional diets, food production systems and welfare system characteristics (i.e., Beveridge/Bismarckian healthcare systems; Figure 2; Andersen, 2010; Freisling et al., 2010; Vanham et al., 2013; de Ruiter et al., 2014; Irz et al., 2016; Guarnizo-Herreño et al., 2017).

FEAST's Living labs will be used to establish user-focused experimental environments in which key food system actors responsible for shaping food environments along the horizontal micro- and meso-scales of the food system (end-users (citizens), municipal, provincial and national authorities as well as production, distribution and retail organizations) will participate in the co-development, testing and research of novel community, technology and policy-based solutions in real-world settings. Importantly, living labs are particularly well-suited for identifying, defining, and addressing the needs of vulnerable groups struggling economically and geographically to access solutions to support them to adopt and maintain healthier and more sustainable diets. As such, those who will benefit directly from the outcomes of this project will be closely involved in generating the solutions. Partners will also co-design recommendations for policymakers using a participatory and inclusive analysis of policy constraints to innovation across food systems. The specific approaches we will use at the analytical micro- and meso-levels that speak to respective governance scales include.

Micro-level

Sociological and human geography methods will be used to investigate the geographic, socio-economic, behavioral and cultural factors determining dietary choices on individual and group-specific levels, accounting for food environments across Europe involving urban, suburban, rural and coastal regions, with a particular focus on different vulnerable groups, gender and demographics. This information will be elicited using a variety of methods including cross-sectional survey

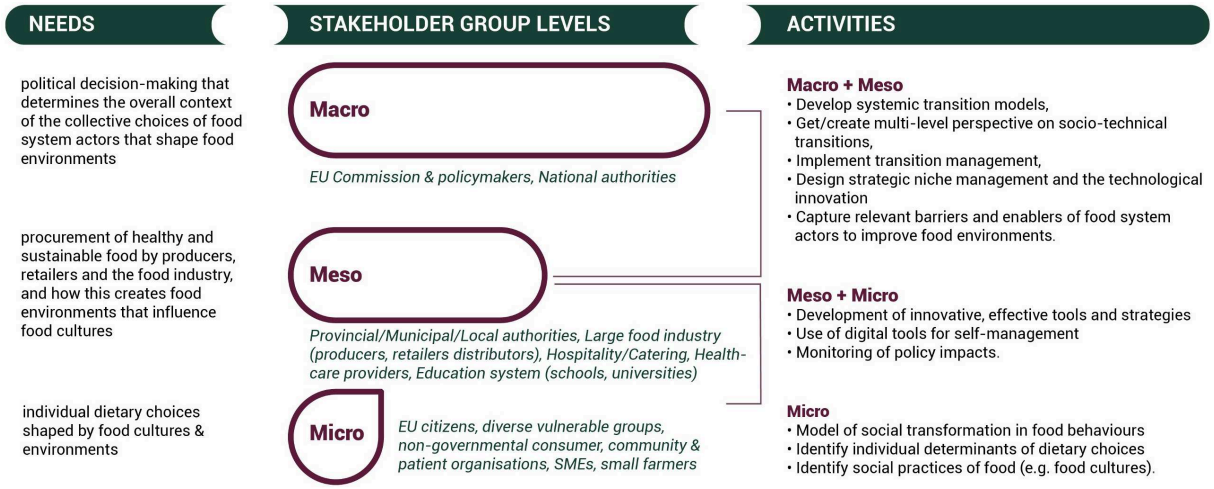

FIGURE 1
Exploring MLG-Type I and MLG-Type II through macro, meso and micro levels of the food system.

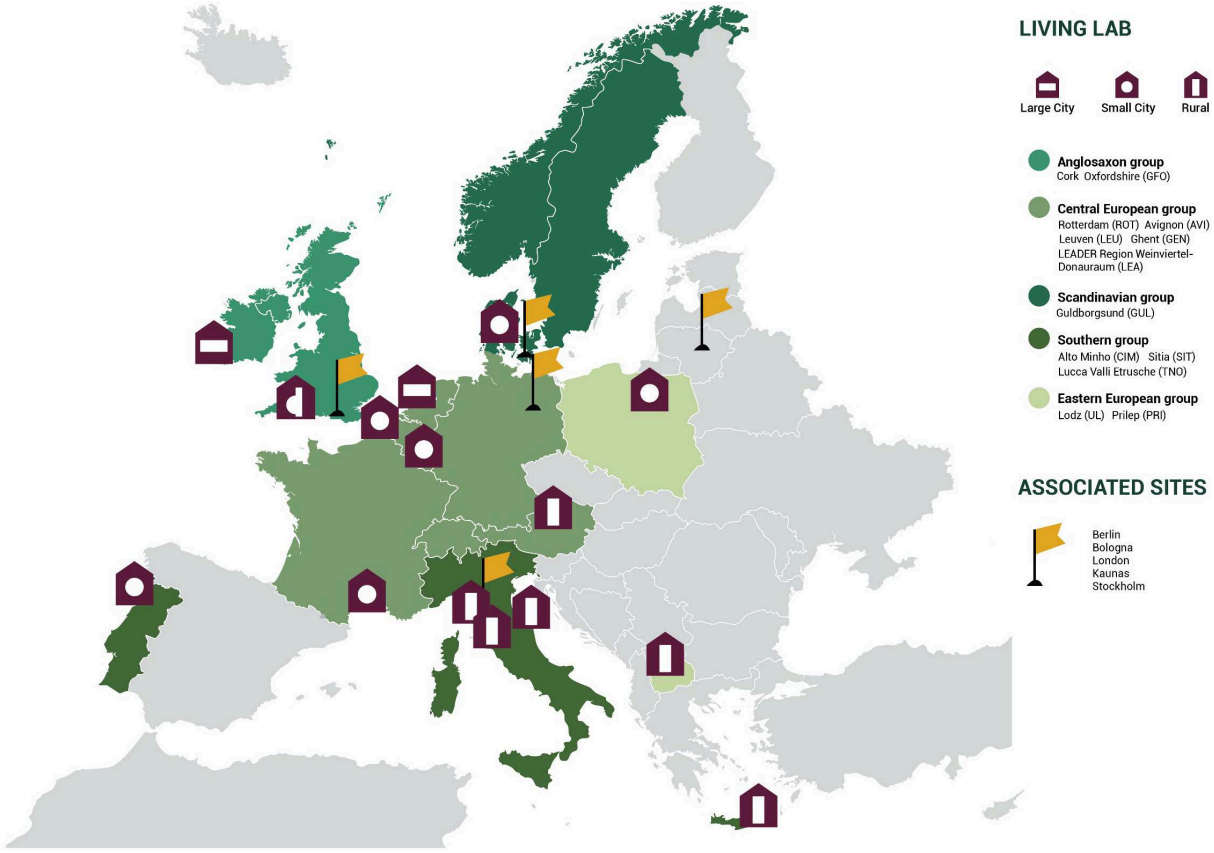

FIGURE 2
FEAST food regions and FEAST living labs.

across Europe, direct engagement with vulnerable groups, tracking purchasing behavior through digital apps and modeling informed by large datasets. The impact of individual and group-specific dietary choices on the environment will be analyzed by using biodiversity, nitrogen flow and energy efficiency of agriculture as indicators. The consequences of these choices on public health and group-specific quality of life will be assessed by using mortality rates and cardiovascular illnesses. The insights on the factors influencing dietary behaviors will be leveraged by our partners in cities and community groups to improve food environments and empower citizens to make healthier and more sustainable dietary choices.

Meso-level

Economic science and sociology will guide investigations of the determinants of food procurement by producers, retailers and the food industry. Furthermore, FEAST will explore how these determinants shape food environments. Using validated instruments developed by our partners (e.g., Food-EPI) we aim to directly engage with food system actors to better understand their barriers and facilitators to supporting transitions to healthier food environments. We will also co-design innovations that can be used to shape food environments and institutions in a way that empowers and supports consumers to easily access and make healthier and more sustainable dietary choices. For businesses, we aim to explore how fewer unhealthy and unsustainably produced dietary products are offered while simultaneously increasing affordable, local, healthier and more sustainably produced products on offer. For institutions, we aim to support them to increase availability and use of healthier and more sustainable meal options.

Integrating MLG-Type I and MLG-Type II insights

The outputs of our MLG-Type I and MLG-Type II approaches will be integrated into scenario methods and modeling approaches that allow for integrated health impact and sustainability assessments of planned policy measures that follow from specific scenarios and visions based on FEAST's co-created community, technology and policy-based solutions. Models will be able to calculate cost-benefit ratios of various measures and will also take into account multiple valuation languages impacting policy choices and debates in socially heterogeneous environments. These models will also help to identify potential leverage points for food system change while accounting for social, environmental and economic effects as well as trade-offs and synergies within and across these domains. As far as we are aware, this is the first attempt at integrating outputs from both MLG-Type I and MLG-Type II approaches in this way.

Conclusion

Given the heterogeneity, complexity and unpredictable nature of food systems, one-size fits-all solutions cannot exist. Heuristics are a type of solution that can provide the flexibility needed to account for different contexts, preferences and needs. Within food systems, food democracy could be a heuristic solution that can form the basis for driving transition processes but ensuring that these transition processes are fair, equitable, sustainable and constructive, requires an approach that can be used across vertical and horizontal governance spheres to ensure the voices of key stakeholders across space, time and spheres of power are accounted for.

In this manuscript we outline a new Horizon project, FEAST, that aims to use multilevel governance approaches across vertical and horizontal spheres of governance to realize constructive food democracy. We envisage this as a means to inform just processes that can be used to design and implement policies, in line with food democracy, while being able to accommodate the shifting demands of complex food systems.

The ultimate goal is to enact food democracy as a heuristic solution to overcome the current imbalances and injustices while facilitating transitions to "Win–Win–Win–Win" food systems across Europe that makes it easy for every European to eat a health and sustainable diet that is good for their health, good for the environment, reduces demand on public sector services, while also being beneficial for businesses.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Author contributions

AJ and AE were responsible for the conceptualization and writing of the manuscript. RB, LT, and SV were contributed to writing and reviewing the manuscript. BB created the figured and reviewed the manuscript. AM, SVD, JH, AO, GM, PD, AB, TB, ES, CN, EV, CS, JR, IS, ST, RP, NK, TS, DW, PV, AK, SN, OK, FD, CB, AG, AT, AF, SB, SE, LR, GL, AR, BJ, CH, MJ, FS, EM, KD, AS, MK, OK, MH, EC, and CW contributed to the conceptualization of the manuscript and contributed to reviewing it for content. All authors contributed to the article and approved the submitted version.

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Conflict of interest

Authors RB and BB were employed by Open Science for Open Societies. Authors IS and ST were employed by Eurohealthnet ASBL. Authors SN, OK, and FD were employed by EAT Foundation. Author CB was employed by OpenDot SRL. Author SE was employed by Comunidade Intermunicipal Do Minho-Lima. Author FS was employed by Good Food Oxfordshire Ltd., Oxford. Authors CH and MJ were employed by myLabel SAS.

The remaining authors declare 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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Food systems in depressed and contested agro-territories: Participatory Rural Appraisal in Odemira, Portugal

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Farming regions in Europe, particularly in the South, are increasingly feeling the effects of climate change due to factors such as drought, extreme weather events, and desertification, with severe consequences for food security and food sovereignty. Additionally, decades of rural mismanagement have left countless of these farming territories severely depressed as well as at the mercy of competition for their natural resources. This paper presents and discusses the results of a Participatory Rural Appraisal conducted in the region of Odemira, Southwest Portugal. Rooted in the frameworks of agroecology and food democracy, this mixed methodology aims to support people in multiply stressed agro-territories to diagnose the state of their food systems and agroecosystems from a democratic and ecological point of view and engage local actors in imagining fairer and healthier food futures for their regions. Local food actors were invited to identify and qualify the main problems in the region's food systems, complemented by an agroecological assessment of farm production systems. The results of the study confirm the status of Odemira as a depressed and contested agro-territory, whose social, economic, and ecological vulnerability is being compounded by the clash between the model of traditional smallholder farming and that of large-scale intensive agriculture. The study also shows the potential of sustainable farming practices as well as collaboration between the different food actors to support an agroecological transition in the region. However, to jointly realise food democracy and food system sustainability, the tensions resulting from the current political support for hyper-industrialisation and the lack of democratic, institutional, and legal mechanisms available to local actors will need to be addressed head-on.

KEYWORDS

food democracy, food sovereignty, food system, sustainability, sustainable transition, agroecology, Participatory Rural Appraisal

1. Introduction

Climate change is considered one of the biggest challenges worldwide, and the reshaping of the world's climatic patterns has already resulted in changing ecological systems. Recent trends indicate that global greenhouse gas emissions have tripled compared to pre-industrial levels, reaching over 1,900 parts per billion (Tollefson, 2022). In the last several decades, climate change has affected the environment and ecosystems in many ways: from increasing temperatures, decreasing water availability and food security levels worldwide to expanding land desertification.

To mitigate the effects of climate change and to maintain the world's temperature under 1.5 degrees to 2 degrees Celsius, compared to pre-industrial levels, as stipulated by the Paris Agreement, the European Union (EU) is set on making Europe the first climate-neutral continent by 2050 within the framework of the "European Green Deal" (European Commission, 2019). When assessing the chief mitigation and adaptation responses, the EU is particularly keen on reforming farming practices to achieve "fair, healthy, and environmentally-friendly" food systems (European Commission, 2019). The "Farm to Fork" and "Biodiversity" strategies (European Commision, 2020a,b), alongside the Sustainable Development Goals (SDGs), namely SDG 2—which aims to end hunger and all forms of malnutrition by 2030 (United Nations, 2015)—are deemed pivotal to the European sustainability pact. In this sense, the EU recognises that food systems are as much a major contributor to climate change, water stress, and pollution, not to mention their impact on human, animal, and ecosystem health, as they have the potential to reverse these fundamental problems.

The EU's sustainability goal is to repair food systems to deliver environmental, health, social, and economic benefits while eliminating injustices such as small-scale producers' low income and limited access to markets. In the above-mentioned European strategies, there is a clear push to drastically reduce pesticide and synthetic fertiliser use (up to 50% by 2030), decarbonise the food chain, and increase the area of organic farming and the availability of organic seeds. In this manner, the EU is trying to broaden its mitigation and adaptation options from a focus on flood protection, urban planning, and water management (Aguiar et al., 2018) to a new, more comprehensive, resilient, and sustainable approach: one that places food systems and their actors at the centre of a green, just, and inclusive transition (European Commission, 2019, p. 12).

Unfortunately, these key objectives have not been given clear targets. EU member states are systematically failing to invest in mitigating environmental degradation by intensive agricultural practices, e.g., large-scale monocultures of cash crops (BirdLife Europe and the European Environmental Bureau, 2022a,b). Instead, money continues to go to destructive forms of farming while vital environmental schemes are severely underfunded. Under the pretext of Russia's war on Ukraine, measures to ensure sustainability are further relaxed. Currently, the EU is not even remotely on track to deliver any of the targets and objectives set in the Green Deal (BirdLife Europe and the European Environmental Bureau, 2022a,b).

Besides climate change, ecosystems are being confronted with other tough challenges. Depressed farming regions, i.e., socio-economically disadvantaged, often more remote and interior rural territories, have suffered decades of rural mismanagement and political abandonment. A study from the Food and Agriculture Organisation (FAO) assessed that the world's most disadvantaged people work in agriculture or are themselves farmers, pastoral or fisher peoples (FAO, 2017). Due to these chronic and structural disadvantages, rural populations are systematically exposed to social, economic, and environmental risks, placing them in situations of vulnerability with little or no resilience to withstand the effects of climate change and other socioeconomic shocks (International Labour Office, 2017; Gondwe, 2019). Hence, it is expected that Europe's more economically disadvantaged countries, particularly those in the South, will disproportionately suffer the effects of drought, desertification, forest fires, loss of biodiversity, or decreasing agricultural productivity (Behrens et al., 2010, p. 15). In this regard, rural populations face many obstacles in realising opportunities to improve their livelihood due to geographical isolation and underdeveloped infrastructures such as transportation and weak institutions. Ultimately, to overcome these burdens, many abandon their farmland (Li and Li, 2017).

Furthermore, years of unsustainable and unchecked monoculture farming practices are creating a perfect storm for Europe's food systems (Wezel et al., 2018). Regions already in a situation of socio-economic and ecological vulnerability are also more prone to conflicts over natural resources, mainly ecosystem services derived from agroecosystems and minerals (Henle et al., 2008). This complex susceptibility has prompted us to call these multiply stressed regions "depressed and contested territories": areas that not only suffer from pervasive socio-economic and ecological distress but are also currently the object of competing developmental and market models. With an ageing and generally impoverished population that often lacks access to even the most basic social institutions, rural regions become contested territories regarding land management strategies, e.g., the needs and priorities of the diverse producer and worker typologies (Woods and McDonagh, 2011).

This clash of realities can be said to have at its core power asymmetries created by a hyper-industrialised and concentrated monoculture agriculture that generates pressure on the other actors in the region, such as small-scale producers, young people, and migrant workers who, forgotten by the State, have little or no say in what happens in their territory. For instance, traditional and peasant farmers—i.e., farmers who use labour-intensive practices, traditional knowledge and tools, and rely

more heavily on on-farm resources—are increasingly struggling due to a lack of financial and technical support and diminished access to land, markets, and knowledge (Guarín et al., 2020). Their small-scale operations are gradually disappearing, with some of the land lying abandoned, other parts snatched up by a new breed of large, often foreign corporations that are responding to opportunities in the global food markets for the production and sale of export cash crops—such as berries, avocados, almonds, tomatoes, olive oil, soybeans, corn, or palm oil. History shows us that agricultural trade has a colonialist legacy since it encourages the development of agricultural products in rural, more peripheral areas for a dominating class that benefits most from this power relationship (Gonzalez, 2004, p. 433). In many countries, large foreign companies pursue the expansion of monocultures at the expense of communities' livelihood, health, and food security. Several studies show how smallholders are affected worldwide ecologically as well as democratically by large-scale agricultural investments (e.g., Guereña and Burgos, 2014). The rise of large-scale intensive agricultural practices currently witnessed in the EU is already driving environmental challenges as well as socio-economic problems and democratic deficits: from land grabbing—the buying up or renting of large swathes of farmland at bargain prices by foreign investors—to human rights violations by the export-led agri-food business. For example, Gadea et al. (2016) demonstrate how large-scale agricultural companies in the Spanish region of Murcia have relied on migrant workers since the early 1970s to satisfy foreign market demand. Other studies reveal the power asymmetries, exploitation, and social pressure created by large-scale agriculture, as evidenced by the plight of Sub-Saharan migrants in the tomato-picking industry on the outskirts of Foggia, Italy (Melossi, 2021) or the challenges encountered by migrants and refugees when arriving in rural Greece (Papadopoulos and Fratsea, 2021).

The present work focuses on rural Portugal, specifically the municipality of Odemira, which is considered one of several multiply stressed agro-territories (i.e., agriculture-based territories) in the Alentejo farm region. These rural areas have a long tradition of periods of intensive farming practices and a chronically deficient distribution of wealth (Cutileiro, 1977; Évora, 2022). During the nineteenth and early twentieth centuries, until the agrarian reforms, these regions were characterised by a small number of large landowners who governed most of the land, forcing peasants to resort to hard labour to survive (Évora, 2022). Compared to other Mediterranean countries, international migration arrived later in Portugal (Fonseca, 2008). Nonetheless, the patterns are the same as in other Mediterranean countries (Pereira et al., 2021). Since the 1980s, Odemira has witnessed the settling of intensive farm enterprises within the perimeter of a natural reserve—the Parque Natural do Sudoeste Alentejano e Costa Vicentina (Bastos et al., 2012). This results in a more competitive environment for natural and institutional resources, while the effects of climate change are generating a gradual but rapid loss of natural resources (Município de Odemira, 2016; Pereira, 2019; Évora, 2022). Examples of the concentration of power and wealth in our area of research can be found in the work of authors such as Évora (2022), who assesses the social consequences of the rise of the berry industry, or Almeida (2020, p. 8), who indicates that in the wider Alentejo region, six foreign companies now own more than 65% of the olive plantations.

Considering not only the climate, water, and socio-economic stressors in this particular agro-territory but also the existence of competition for natural resources between farming models and the systematic disempowerment of traditional and peasant farmers, this paper investigates the Odemira region using the lenses of agroecology and food democracy. These theoretical, practical, and collective-action frameworks are uniquely suited to address both unsustainability and injustice in food systems. Agroecology is "an integrated approach that simultaneously applies ecological and social concepts and principles to the design and management of food and agricultural systems" (FAO, 2018, p. 1). While its origins can be found in the disciplines of ecology and agronomy, the field has been reshaped with the introduction of socioeconomic and cultural factors, including traditional peasant knowledge (Hernández and Ramos, 1977), as well as through its simultaneous politicisation (see for example Gliessman, 1978; Altieri, 1989). Today it is as much a science, prioritising holistic and participatory approaches, as a set of practices, building on local farmers' knowledge and priorities to promote the sustainable and viable use of local renewable resources, and a social movement, defending smallholder peasant and family farmers and their communities and local food systems.

Food democracy, on the other hand, has also evolved from a narrower needs-fulfilment perspective, for example, the "right to adequate food" as proposed by the United Nations Committee on Economic, Social and Cultural Rights (1999) and other rights-based food system approaches such as proposed by Anderson (2008), as well as early reflections by Lang (1998). The latter popularised the concept as "access to a decent, affordable, health-enhancing diet, grown in conditions in which [people] can have confidence" (1998, p. 18). Lang (2007, p. 12) later acknowledged that the idea of food rights bothered him: "Food rights can be abstract and lost. Food democracy has to be fought for and built into food culture." Proponents of food democracy have not just moved from a focus on control over food to control over the food system but have integrated the latter's sustainable transformation into the conceptual framework (Magdoff et al., 2000; Hassanein, 2003; López Cifuentes and Gugerell, 2021). The concept of food democracy, in parallel to that of agroecology, currently distinctly embraces a critical, politicised view of the global industrial food system, seeking ways to heal its ecological, social, economic, ethical, and cultural challenges through the involvement of all those affected.

Peasant movements and civil movements from the Global South, where agroecology has its roots, have favoured the closely related concept of food sovereignty, which claims peoples' rights to "healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their food and agriculture systems" (International Forum for Agroecology, 2015). Championed by the international peasant movement La Via Campesina (La Via Campesina, 2018), it stresses the producer's perspective, particularly that of small-scale, traditional, peasant, and family farmers (Renting et al., 2012, p. 293). Food sovereignty embraces both food democracy and agroecology to empower communities, citizens, and producers and facilitate the joint sustainable and democratic transformation of food systems.

The theoretical framework for this study is thus focused on realising the right of every person to nourishing, healthy, and responsibly produced food, as well as on underlining the pivotal role that small-scale, traditional, family, landless, and peasant farmers have in terms of ensuring both food justice and local sustainability.

Smallholder traditional and peasant producers generally inherited complex farming systems based on resource-conserving culturally adapted farming practices that integrate, most of the time, soil, water, plant, and animal management at a landscape scale (see e.g., Altieri, 2004; Mijatović et al., 2013; Altieri and Nicholls, 2020). In these traditional farming systems, knowledge, techniques, principles, long-term perspectives, and observations are based on local specifications. They are developed and used to enhance biodiversity, synergy creation, self- and community reliance, and environmental preservation. These producers can be characterised as dependent on and attached to the land. Even though the primary goal of this type of production is to provide subsistence for the household or community (Mijatović et al., 2013), this is often complemented by selling produce. Globally, most farmers fall into these categories, making up a third of the world population (see FAO, 2012; Lowder et al., 2016). However, they control a minority of the farmland and a fraction of the resources (financial, in the form of subsidies or credit, as well as natural) that go to resource-intensive, industrialised producers. For example, 85% of farms in the world are small (under 2 hectares) but control only 12% of agricultural land worldwide (Lowder et al., 2016), while about 8 out of 10 working poor live in rural areas (International Labour Office, 2012). Even though studies show small farms can be more productive than industrialised farms by a factor of between 2 and 10 (Rosset, 2000; FAO, 2014), there has been systematic underinvestment in smallholder farming. This paradigm can also be observed in Odemira, where the vast majority of the local producers are smallholder or small-scale farmers practising traditional, peasant, and/or family agriculture (PORDATA, 2022).

This study of the agro-territory of Odemira was guided by the objective of collaboratively characterising the current state of its agri-food sector, identifying the central tensions and convergences between the different agrarian models and the natural and social limits imposed by the resources, agroecosystems, and the socio-economic and socio-ecological conditions. The primary starting point for the research was the recognition of diverse local producers' perspectives, especially those with a history of being more marginalised. The research was designed based on the Participatory Rural Appraisal approach (PRA), with roots in agroecosystem analysis and systems and ecological thinking (Chambers, 1994, p. 954), to assess the sustainability as well as the level of democracy of Odemira's food and farming systems.

With the involvement of a diversity of actors from the region's food and farming systems, using a methodology combining documentary and participatory diagnostic tools, and triangulating the data obtained, this study aimed to answer the following research questions:

- What are the key challenges that can be identified for the Odemira agro-territory?
- What ecological and democratic tensions and convergences can be observed in the food system?
- What are the main contributing factors to the agro-territory's key stressors as perceived by its principal local actors?

This paper is structured as follows: the present section provides the backdrop and justification for our research, Section 2 presents the methodology, and Section 3 the results, which are then discussed in Section 4. Finally, some concluding remarks and suggestions for ways forward are offered in Section 5.

2. Methodology

The study's key objectives were to comprehensively assess, within the framework of agroecology and food democracy, the key challenges, tensions, and convergences that can be identified in the agro-territory of Odemira, as well as reveal the underlying contributing factors. To manifest our commitment to collective, action-focused reflection processes and the empowerment of the regions' community actors, the research design was constructed according to the principles of the Participatory Rural Appraisal approach (PRA). The latter is "an approach and methods for learning about rural life and conditions from, with and by rural people" (Chambers, 1994, p. 953). It offers a toolkit of methods to collect and process data on-site, involving the people whose community, territory, or livelihoods are being appraised. It is particularly appropriate for communities suffering multiple stressors because it is more responsive to their plight and perceptions, and more capable of eliciting reflexive data and uncovering the key factors that fuel the region's problems.

PRA has roots in agroecosystem analysis, anthropology, farming system research—which has revealed the capability of farmers as analysts of their systems—and finally, PRA's non-participatory antecedent, the Rapid Rural Appraisal (RRA) (Chambers, 1994, p. 954). In contrast to RRA, which seeks to incorporate local people's knowledge in the inquiry, PRA's essential resource is the analytical capabilities of local people (Chambers, 1994, p. 958). Chambers points out that rather than extracting information solely for planning processes beyond the community's needs, followed by offering advice, PRA can be characterised by the experiential training and collaborative learning that it can offer, as well as the empowerment of local people to take local action.

For the present analysis, this research took to heart Verdejo (2006, p. 6, our translation) motto, "to support community self-determination through participation and, thus, foster sustainable development". The actors identified during the first research phase (see Section 2.1) were contacted and informed of our intentions in order to involve them as much as possible in the research design process, thus ensuring the inclusion of essential information for the baseline analysis and allowing them to comment on the research objectives and methods and offer suggestions. Throughout all the phases of the research, these local actors were kept abreast of developments and ultimately invited to participate in the collective appraisal of Odemira as an agro-territory.

The research design triangulates three sources of data:

1. Baseline analysis of the agro-territory based on documentary research, including establishing a list of main actors in food and farming in the region;
2. Agroecological sustainability assessments at 16 farms drawn from four typologies;
3. Collective analysis and reflection with local actors to test and complete the baseline analysis as well as identify and analyse the key ecological and democratic challenges and tensions in the agro-territory.

In the following subsections, each of the methods used in the study is presented.

2.1. Baseline analysis

The documentary research aimed at collecting and considering the maximum possible amount of publicly available data and establishing a baseline against which the participatory data could be assessed. It included official statistics and data for social, economic, environmental, institutional, geographical, and political indicators, including information on Odemira's key geomorphological and climate characteristics, details about its population, a description of its economy, and facts on available infrastructure and connection to markets. Finally, we surveyed all national and international legislation and conventions that impact the agro-territory and catalogued the leading institutional, civil society, and food system actors. These actors were drawn from 13 typologies, informed by the authors' previous actor-based research (Uij and Bálint, 2020; Horstink et al., 2021). The final list of actor typologies for the PRA is presented in Table 1. A total of 87 actors were identified from the documentary research, complemented with a snowball approach by contacting known actors and asking for referrals.

TABLE 1 List of actor typologies for the PRA.

Typology number	Type of key actor
1	Producers
1.1	Conventional/industrial producers
1.2	Organic producers
1.3	Traditional producers
1.4	Agroecogical or Proto-agroecological producers
2	Other key actors
2.1	Associations or NGOs
2.2	Cooperatives
2.3	Collectives or networks
2.4	Local, regional, or national government
2.5	Public sector institutes
2.6	Academia
2.7	Schools/educators/trainers
2.8	Agri-food companies
2.9	Other actors

2.2. Agroecological sustainability assessments

For the agro-territory of Odemira, 32 producers were identified through the process described above, of which 16 were chosen across the four typologies for producers presented in Table 1 (conventional, organic, traditional, and agroecological). Six additional criteria determined which producers were contacted: location (coastal vs. interior regions), the destination of production (local sale, national sale, export, self-consumption, and mixed), type of production system, legal status, the size of the farm, and gender. Due to the lack of certified organic producers in the area, the typologies of organic and agroecological producers were combined into a proto-agroecological typology.

The producers' systems and practices assessments were conducted on-site using a closed-ended questionnaire, which covered 36 indices of agroecological sustainability. This was

complemented by a walk around the farm to observe the agricultural practices. Assessments typically lasted an hour to an hour and a half, and at the end, the scores on the different criteria were shared with the farmer to benefit their awareness of their activities.

The questionnaire used forms part of the Tool for Agroecology Performance Evaluation (TAPE), collaboratively designed by 70 organisations across the globe active in agroecology under the coordination of FAO. The motivation for its development stemmed from the opportunity presented by the science and practices of agroecology to create more sustainable, resilient and fair farming and food systems. TAPE builds on frameworks for sustainability evaluation that already exist to be as relevant and applicable as possible to different scales, regions, countries, and continents. Another requirement was that it should be simple in use, minimising data collection but allowing extendibility.

The tool's main objective is:

> [...] to produce consolidated evidence on the extent and intensity of the use of agroecological practices and the performance of agroecological systems across five dimensions of sustainability: (i) environment, (ii) social and cultural, (iii) economic, (iv) health and nutrition, and (v) governance.
>
> (Mottet et al., 2020, p. 2)

TAPE measures 10 criteria for sustainable transition, modelled on the 10 elements of agroecology defined by FAO (2018): Diversity, Synergies, Efficiency, Recycling, Resilience, Culture and Food tradition, Co-creation and Sharing of Knowledge, Human and social values, Circular and Solidarity Economy, and Responsible Governance. Each criterion is assessed using three or four semi-quantitative indices presented as descriptive scales, which can be scored ranging from 0 to 4 (Mottet et al., 2020, p. 7). For example, the criterion of efficiency is measured by the following indices: (i) use of external inputs; (ii) management of soil fertility; (iii) management of pests and diseases; (iv) productivity and household needs. The scores on each of these indices are summed and transformed into a percentage (i.e., a respective score on the four Efficiency indices of 2, 3, 4, and 2 would result in an overall Efficiency score of 68.75%). Scores of up to 39% are considered low (below 20% very low), between 40 and 60% indicate a farm in transition, whereas scores of 60% or more show well-performing farms in terms of agroecological sustainability (with scores over 80% indicating outstanding performances). The percentage scores on the 10 criteria are averaged to provide an overall agroecological transition/sustainability score for each farm, called CAET: characterisation of agroecological transition. Full details on the tool, as well as the questionnaire, can be found in FAO (2019) and Mottet et al. (2020).

The 16 farms were evaluated based on their performance on the 10 criteria and 36 indices from the TAPE tool. Each farm's single and average score on the 10 criteria was projected as an individual outcome, and the scores of all farms on each of the 36 indices that make up the 10 criteria were projected as collective results.

2.3. Collective analysis and reflection

Out of the 87 food system actors contacted in the study, 20 were selected for a workshop based on their technical, cultural, and historical knowledge, as well as their connection to the agro-territory and willingness/reachability to participate. All participants were contacted *via* email and telephone and represented individual producers, cooperatives, associations/NGOs active in the local food systems, development NGOs, local researchers, local politicians, and social movements. The workshop was conceived to collectively analyse the main characteristics, key challenges, and critical problems of Odemira as an agro-territory. To achieve this goal, the following techniques from the PRA toolkit were used:

- Collective agrarian memory exercise;
- Community mapping, evaluating the economic, social, cultural, and institutional resources of Odemira;
- SWOT (strengths, weaknesses, opportunities, and threats) analysis of Odemira's food and farming system(s);
- Problem identification and prioritisation regarding Odemira's food system(s);
- Problem tree exercise—analysing causes and consequences of critical problems;
- Free flow reflection exercise in the final plenary.

The workshop was complemented by four short semi-structured interviews with additional important local actors, using the same questions as in the workshop. The interviewees were: local government (two), NGOs (one) and development NGOs (one).

3. Results

3.1. Baseline analysis of the Odemira agro-territory

The municipality of Odemira (see Figure 1) is located in the south of Portugal. It is part of the district of Beja and a sub-region of Alentejo's coastal area. With a territorial extension of 1,720.6 km^2 and a 55 km coastline, Odemira is Portugal's largest county. It shares territory with the ecological reserve Parque Natural do Sudoeste Alentejano e Costa Vicentina and

FIGURE 1
Map of Odemira. Source: Município de Odemira (2016).

the Natura 2000 network. In terms of topography, Odemira's landscape varies from a plateau topography on the coast to hills, or small mountain chains, in the inland region, where streams interconnect to flow into the rivers Mira and Sado and, ultimately, the sea. Between the plateau and the hill region there is a transition zone where the main villages of the municipality are concentrated.

Odemira's climate is temperate Mediterranean with dry and mild summers. Due to its proximity to the sea, average annual temperatures are mild, between +14°C and +18°C (Bastos et al., 2012). However, they can oscillate between −4°C in January and +40°C in July (Município de Odemira, 2016, p. 13). The average precipitation is between 600 and 800 mm, occurring mainly between October and May, while during May to September, little or no rainfall is observed, with only the occasional fog (Município de Odemira, 2016, p. 13).

Odemira is expected to be particularly vulnerable to climate change, with a decrease in precipitation and an increase in average temperatures (Município de Odemira, 2016, p. 31). Major climatic events and associated vulnerabilities that have been already identified are (i) high temperatures/heat waves (which, due to monoculture farming patterns, cause a significant risk of wildfires), (ii) drought (causing biodiversity loss and damage to endemic flora), (iii) storms/tornados (causing an interruption or reduction of water supply and/or reduction of its quality) and, finally, (iv) excessive precipitation/ floods (causing coastal erosion) (Município de Odemira, 2016, p. 40). Climate change is expected to place the territory at risk for serious social, economic, and environmental problems, such as deteriorating living conditions, major ecosystem fragility, and damage to economic activities (Município de Odemira, 2016, p. 40).

The territory's ecological vulnerability is very high, considering that this is one of few European areas where wild coastal stretches and endemic habitats undamaged by human action can be observed (Ferreira, 2010). The region presents unique ecological characteristics, among them a remarkable endemic floristic heritage (Canha, 2010, p. 52) and extraordinary fauna such as the Boga-portuguesa (Chondrostoma lusitonicum), the otter (*Lutra lutra*), the striated terrapin (*Emys orbiculoris*) and several species of bats (Canha, 2010, p. 52–53). The region also offers unique habitats (including temporary freshwater ponds), which provide vital ecological functions for the local fauna and flora, e.g., for the white storks and other endemic species nesting on the sea cliffs of the coastal strip.

The town of Odemira, as the county seat, takes on a particular centrality in the territory: this is where the primary public and commercial services, light industry, and business parks are located (Palhinhas, 2019). The most remote interior part of the municipality can be characterised by forestry, cork extraction, and extensive livestock pastures (Palhinhas, 2019).

As in most interior and rural areas in Portugal, Odemira has a small and ageing population: over 27% of people are 65 years or older, and <10% are under 15 (PORDATA, 2022). Displaying a population density of 25.6 hab/km² in 1960, Odemira's population subsequently fell by 40% between 1960 and 1991

because of the rural exodus (Município de Odemira, 2020). By 2019, population density had been reduced to 14.3 hab/km^2. Nevertheless, Odemira is the only municipality in the Alentejo region that has recently increased its resident population: from 26,066 people in 2011 to 29,576 in 2021, a growth of 13.5% (INE, 2021), including a significant number of seasonal migrant workers. Immigrants now represent 39% of the total population (Oliveira, 2021). The first wave of migrants arriving in Odemira consisted principally of Northern European citizens who sought to improve their quality of life after retirement, as well as citizens from Portuguese-speaking African countries who migrated to Portugal for access to better education (Município de Odemira, 2020). However, the most significant increase in population density can be associated with the needs of agribusinesses linked to the expansion of intensive agriculture (Moreno et al., 2016). Agricultural, largely seasonal workers were initially from Eastern Europe and Brazil (Moreno et al., 2016). However, from 2014 onwards, Asian migrants became the primary hired labour (Moreno et al., 2016; Município de Odemira, 2020).

In 2020, out of the 15 largest employers of the municipality, eight were related to agriculture and forestry (Gabinete de Estratégia e Estudos do Ministério da Economia e do Mar, 2019, p. 6). Moreover, while exportations of goods for Odemira in 2021 were valued at over 220 million euros (INE, 2022), agriculture stands out. The 22 largest companies of the municipality that are represented by the association for Horticulturists, Fruit growers and Floriculturists—AHSA—had revenues of over 200 million euros (AHSA, 2022). Together, these corporations employ 3,500 people, operate on over 2,000 hectares, and export about 80% of their produce to European countries (AHSA, 2022).

The average size of farms in Odemira is 48 ha (data from 2019), higher than the country's average of 14.6 ha, with almost 80% of farms holding ∼20% of farmland or 15,342 ha, while slightly over 20% of farms (363) control 80% of the land (PORDATA, 2022). Statistics also indicate that over 60% of farms operate on <20 ha. Most farmers (87%) are single producers, with only 213 operating as a company. Odemira being traditionally an area of extensive cattle-raising, it is common for producers to rent land for grazing (30% of farmland is rented). Finally, the area dedicated to intensive horti-, floriculture, and fruit growing is rapidly increasing and now covers close to 3,000 ha (INE, 2019).

The Mira irrigation system supplies the water needed for these agricultural holdings. The Alentejo is the region with the largest irrigated area (38% of the total area) and the one that registered the most significant expansion—a 54% increase compared to 2009 (INE, 2019, p. 8).

Odemira's biodiversity and natural ecosystems are under serious threat from the expansion of agriculture and tourism, according to an analysis of the effects of these sectors (Canha, 2010). Although Odemira has seen periods of intensive farming over the centuries, including several wheat campaigns and the advent of the Green Revolution, the scale at which industrialised farming is now expanding in the area is unprecedented. As Canha (2010, p. 105) warns, in just 11 years more than 40% of the temporary ponds in Odemira have been destroyed due to drainage or excavations. Additionally, the National Institute for Nature Conservation and Biodiversity (ICNB, 2009) demonstrated that the recent agricultural intensification is causing water pollution and depletion due to intensive irrigation and the use of high quantities of synthetic fertilisers and phytosanitary products. This affects biodiversity and local habitats protected by law due to their integration into legal frameworks such as the Natura 2000 Network (ICNB, 2009, p. 12). However, without serious environmental studies or environmental assessments conducted by the municipality, quantitatively assessing the cumulative environmental impact on ecosystems and resources has been very challenging. The media has been the primary source of warnings about the negative externalities of the agro-industry for the past few years (e.g., Público, 2019; RTP, 2021; TVI, 2021). These range from water shortages, mainly in the form of water rationing but also by cutting off access to water for some small-scale farmers, to plastic pollution derived from the "plastification" of the landscape with the expansion of greenhouses for cash crops. The general public is becoming increasingly outraged, and in 2020 a public petition with 6,000 signatures was delivered to Parliament criticising regional and national governments for not only consistently failing to address serious issues and violations recorded in official reports but also for allowing the area of plastic greenhouses to triple while ignoring essential infrastructures, such as hospitals, playgrounds, and schools.

Besides the documented impact on the environment and the contribution to the drastic depletion of resources, intensive agriculture in the area has aggravated structural socio-economic vulnerabilities such as labour instability in the form of insecure temporary and seasonal labour contracts (Município de Odemira, 2020). Additionally, the agro-industrial development has generated downward pressure on wages (Gabinete de Estratégia e Estudos do Ministério da Economia e do Mar, 2019, p. 10). It has unveiled a lack of respect for and protection of human rights, creating the perfect environment for exploitative practices involving economic migrants, e.g., labour contracts that are not translated or working hours that are poorly accounted for (Município de Odemira, 2020). The rapid increase in migrant agricultural workers has, additionally, caused upward pressure on rents and downward pressure on the availability of living and commercial spaces. This complex situation of vulnerability, alongside the depletion of local fauna and flora due to rural mismanagement and climate change, created a territory that can be characterised as "depressed and contested", suffering from structural ecological and socio-economic challenges as well as democratic deficits and blatant injustices.

3.2. Agroecological assessment of local farms in Odemira

Table 2 provides a detailed description of the 16 assessed farms based on nine indicators: typology, region, gender, productive system, crop types, workers (including family), farm size including land distribution, production destination, and legal status. Table 3 shows the farms' agroecological transition/sustainability scores using the TAPE assessment tool. First, the sample will be described according to the indicators, and then the overall sustainability scores are discussed. As will become clear, the indicators that best distinguished respondents and impacted their scores on the TAPE questionnaire were location, production system, the size and land distribution of the farm, and legal status.

Typology-wise, the majority of farmers were traditional (9), followed by proto-agroecological farmers (5) and finally, conventional/industrial farmers (2). This indicator differentiated most strongly between farms and is therefore discussed in detail when the overall sustainability scores of the farms are presented.

Most farmers interviewed were located in the interior region (8), followed by the transitional region (5) and finally, the coastal region (3). Farm location tended to significantly influence the different dimensions of sustainability of the farms for the following reasons:

1. **The coastal area** represents a hotspot for multinational and local companies that produce mainly for export due to good farming conditions (e.g., easily workable soils with abundant water and suitable climatic conditions without frost during the winter).
2. **The intermediary/transition zone** is a stretch of land in the municipality, oriented South-North, which divides the interior from the littoral and is mainly characterised by important villages in terms of population and services. This transition zone has no access to centralised irrigation or major markets but having the largest population share, it offers an opportunity for direct sale to small-scale producers.
3. **The interior zone** is situated east of the intermediary area and is the most desertified in terms of population, soil, and climate. Even though the largest water reservoir is located nearby, the centralised irrigation system extends only to some portions of this area. The area is dominated by traditional farmers and characterised by an ageing population, with very little or no access to infrastructure to support the output of products.

The gender spread mainly favoured male producers (as expected in a region with many traditional farmers). Nevertheless, five of the sixteen holdings were either managed or co-managed by women, representing all the typologies.

Regarding the type of productive system and crops, a significant impact of the farms' production choices on their sustainability performances could be found. Most farmers either engaged in fruit and/or vegetable production systems, agro-pastoral and agro-silvo-pastoral systems, or both. Agroforestry and arable systems each had just one representative. However, 10 farmers possessed permanent pastures; therefore, even those specialising in the production of fruits and/or vegetables decided to incorporate animals into their operations, an important contribute to on-farm resources. Similarly, 14 farmers decided to grow fruit trees, which is frequently considered a crucial component of self-sufficiency, while providing cover for other plants. We found that, except for an agroforestry holding, a sizable industrial holding in the littoral, and a proto-agroecological farmer in the transitional zone, the land set aside by farmers for natural vegetation was frequently residual. The overall amount of natural vegetation was seven times smaller than the total amount for agricultural production and five times smaller than the total amount of permanent pastures. Likewise, even though most farmers had timber and non-timber trees on their lands, only five exploited timber trees, while four exploited non-timber trees, primarily cork oaks. This phenomenon occurs due to the common practice of renting land from large landowners without the legal authority to use the trees for commercial purposes.

The vast majority of the farms (14) hired between one and four workers, with only two employing 20 or more agricultural workers. Seven farms, all traditional or proto-agroecological, relied exclusively on family labour.

Concerning farm size, five farms operated on more than 100 hectares; six farms occupied between 30 and 100 hectares; two farms covered <5 ha, while the smallest three were just under one hectare. The farms with better overall sustainability scores were the smallest (below 1 ha) and intermediate-sized (between 20 and 100 ha). Notably, these included all the proto-agroecological farms. Additionally, those farms that reserved the most significant area for natural vegetation and/or practised very extensive farming were among the farms with the best overall sustainability scores.

The production destination we encountered was predominantly sale combined with self-consumption for all farms, although three farmers produced chiefly for subsistence purposes. The farms with a pastoral component, as well as the conventional farms, exported their goods and/or sold them at a national level. This is because the market for the dominant product in the area, cattle-raising, is controlled by a limited number of intermediaries who export live animals. This is different for traditional horticultural and fruit producers, who have less or no access to national markets, and tend to sell where

TABLE 2 Description of assessed farms in the Odemira region.

Indicators	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
Typology	Proto-agroecological	Traditional	Traditional	Traditional	Traditional	Traditional	Proto-agroecological	Traditional
Gender of principal farmer/owner	M	M	M	M	M	M	M	F
Type of region	Transitional region	Interior region	Transitional region	Interior region	Interior region	Transitional region	Transitional region	Interior region
Productive system	Vegetable production	Agro-pastoral	Agro-silvo-pastoral	Agro-silvo-pastoral	Agro-pastoral	Agro-pastoral	Fruit production	Fruit and vegetable production
Crops and crop products (1 = yes; 0 = no)	1	1	1	1	1	1	0	1
Animals	1	1	1	1	1	1	0	1
Fruit trees	1	1	0	1	1	1	1	1
Timber trees	0	1	1	1	0	0	0	0
Non-timber products	0	0	0	1	0	0	1	0
People in the family (PF) excluding children	2	2	3	6	2	2	1	2
Total workers (including PF)	1	1	3	3	2	2	1	2
External workers last 12 months	No	No	No	Yes	No	No	Yes	Yes
Total area under agricultural production (ha)	0.2	50	80	200	30	34	1	0.2
Total area under permanent pasture (ha)	0.05	60	80	450	370	14	10	0.2
Total area under natural vegetation (ha)	0.1	2	0	0	10	0	60	0
Production destination	Mostly sale and a small part for self-consumption	Mostly sale and a small part for self-consumption	Mostly sale and a small part for self-consumption	Mostly sale and a small part for self-consumption	Mostly sale and a small part for self-consumption	Mostly sale and a small part for self-consumption	Mostly sale and a small part for self-consumption	Mostly sale and a small part for self-consumption
Legal status	Individual producer	Individual producer	Ltd company	Ltd company	Individual producer	Individual producer	Ltd company	Individual producer
Indicators	**Q9**	**Q10**	**Q11**	**Q12**	**Q13**	**Q14**	**Q15**	**Q16**
Typology	Proto-agroecological	Traditional	Proto-agroecological	Traditional	Proto-agroecological	Conventional	Traditional	Conventional
Type of region	Interior region	Interior region	Transitional region	Interior region	Interior region	Littoral region	Littoral region	Littoral region
Gender of principal farmer/owner	M+F	M	F	F	M	F	M	M
Productive system	Agroforestry	Fruit and vegetable production	Vegetable production	Agro-pastoral	Fruit and vegetable production	Fruit production	Vegetable production	Arable farming
Crops and crop products (1 = yes; 0 = no)	1	1	1	1	1	0	1	1

(Continued)

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TABLE 2 (Continued)

Indicators	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16
Animals	0	0	0	1	1	0	1	0
Fruit trees	1	1	1	1	1	1	1	0
Timber trees	1	0	1	0	0	0	0	0
Non-timber products	0	1	0	0	1	0	0	0
People in the family (PF) excluding children	8	1	2	2	0	0	1	4
Total workers (including PF)	4	1	1	2	2	650	1	25
External workers last 12 months	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Total area under agricultural production (ha)	0.05	5	0.16	15	0.8	80	1.5	60
Total area under permanent pasture (ha)	0	0	0	15	8.5	0	0	0
Total area under natural vegetation (ha)	33	1	0	0	60	25	0	2
Production destination	Mostly self-consumption and a small part for sale	Self-consumption	Mostly self-consumption and a small part for sale	Mostly sale and a small part for self-consumption	Mostly sale and a small part for self-consumption	Sale	Mostly sale and a small part for self-consumption	Mostly sale and a small part for self-consumption
Legal status	Association	Individual producer	Informal producer	Individual producer	Informal producer	Incorporated company	Individual producer	Ltd company

they can locally, which is often the women's responsibility in the case of the smallest farmers. Likewise, proto-agroecological farmers tend to concentrate on horticulture and depend on local markets to sell their produce. As a rule, all farmers, except for the corporation, strived to keep a part of their harvest for self-consumption.

Finally, regarding legal status, as is typical for the region and Portugal, most traditional farmers were individual producers. Proto-agroecological farmers operated in more unusual legal formats: two were unregistered, and one worked within an association.

Next, the results of the 16 farms on the score for the characterisation of agroecological transition (CAET), as shown in Table 3, are discussed.

While none of the farms received scores higher than 70% in this study, the farms designated as proto-agroecological received better marks, with the best of these farms obtaining a score of 68%. This is a compelling case for changing production methods to an agroecological or proto-agroecological approach since agroecological practices encourage interventions at all levels of the food and farming system. Additionally, two traditional farmers in the interior received extremely high marks, with 62% (Q8) and 69% (Q4), respectively. The latter is the highest-scoring farm (a father and son duo), operating in an agro-silvo-pastoral system that combines sizable regions for crop production with sizable areas for extensive pasturing. This combination favours healthier soils (fertilised by animals) which, in turn, increase productivity and quality of livelihood in the sense that, besides selling their produce, these farmers could achieve a very good diet by combining the fruits of their production with products bought with their revenue.

This study anticipated lower results from farmers in the interior region, given the more challenging social, economic, and environmental circumstances. However, Odemira county's interior was home to four of the top seven scorers. This demonstrates that sound agricultural practices, particularly the closing of production cycles, matter, independent of the farms' starting circumstances.

The lowest-scoring farmer (Q15 with 39%) was a struggling traditional farmer located in the littoral. This farmer had great difficulty anticipating demand and suffered from the competition of large agribusinesses in the area. The soil on his farm was severely degraded, and even though he was aware of good practices, this farmer had no possibility of implementing

TABLE 3 Overall percentage results of the characterisation of agroecological transition (CAET) for the 16 farms.

Elements of agroecology	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Avr
Diversity	69	63	44	75	56	56	44	63	50	50	56	31	63	63	38	38	54
Synergies	56	63	81	63	50	44	69	44	56	50	38	38	63	38	31	25	50
Efficiency	50	50	44	75	50	63	75	94	88	69	75	63	75	50	50	31	63
Recycling	50	50	50	69	50	63	63	63	69	50	56	44	63	44	38	50	54
Resilience	55	41	55	56	52	52	55	41	63	44	39	33	66	72	34	66	51
Culture and food tradition	67	75	75	75	83	83	67	83	67	83	75	75	58	58	67	67	72
Co-creation and sharing of knowledge	67	25	25	67	42	50	67	33	75	25	67	50	67	67	17	58	50
Human and social values	88	50	75	69	56	56	75	63	92	58	75	63	81	67	38	83	68
Circular and solidarity economy	83	58	50	50	42	75	58	92	58	50	83	25	67	42	42	17	56
Responsible governance	75	33	58	92	50	33	67	42	67	67	58	42	75	92	33	67	59
CAET	66	51	56	69	53	57	64	62	68	55	62	46	68	59	39	50	

Colour code: 0–19% red (very low); 20–64% orange (low); 40–59% yellow (in transition); 60–79% light green (good); 80–100% dark green (very good).

them as he was working alone. He often applied industrial-style practices, further degrading his soil and increasing his water demand. Like another low scorer in the interior region (Q12 with 46%), this farmer's land lacked tree cover, natural vegetation, and the presence of timber or non-timber trees. Both farmers also practised poor crop rotation and failed to integrate animals in their crop production satisfactorily: neither feeding them from the farm nor sufficiently using their manure.

The remaining farms presented an intermediate score (between 50 and 59%). They were almost equally distributed between the coastal area, the intermediary zone, and the interior region. Two were large conventional farmers/ companies, while the remainder were traditional farmers. Even though the two conventional farmers failed to improve their sustainability on all dimensions beyond the satisfactory level, despite their capacity to do so, the traditional farmers maintained average scores despite their vulnerabilities and limitations. These findings highlight the significance of selecting sound, sustainable, and regenerative agricultural knowledge and practices independent of farming, financial, and infrastructure conditions.

Table 4 presents the cumulative score of all the assessed farms on the 36 TAPE indices. The maximum cumulative score that could be obtained on each index was 4 (highest score) * 16 (number of farms) or 64 points. Bearing this in mind, it is possible to observe several trends.

We find evidence of vulnerability for all assessed farms in several vital indices. Overall, farms demonstrated deficient integration of crops with livestock or aquaculture, which increased their dependence on external factors, mainly feed and fertilisers. Although most farms had animals, they usually had no more than one or two species and small numbers of animals, while animal welfare was not always guaranteed. The fact that farms were failing to diversify their activities, products, and services adequately denotes a tendency towards specialisation (rather than polyculture) and a general lack of knowledge or interest in complementary activities, such as crop transformation, agro-tourism, or on-farm course offerings. Investment in renewable energy was practically non-existent beyond using firewood for heating. Farmers' overall very low adhesion to producer organisations and associations was equally worrying. This is not necessarily by choice; several farmers indicated their desire to join an organisation but could not find any in their area. Similarly, very few producers had access to formal or informal platforms for the horizontal creation and transfer of knowledge and good practices. Finally, the lack of opportunities and decent work for young people in farming contributes to their abandoning the activity of their parents and grandparents, with subsequent abandonment of farmland and high levels of youth emigration.

The Odemira food systems revealed other vulnerabilities that can be considered on the low end of transition (i.e., closer to 40% of the maximum score than 60%). Key among

TABLE 4 Cumulative score of the 16 assessed farms on the 36 TAPE indices (max score = 64).

Attribute	Indicator	Sum
1. Diversity	Crops	52
	Animals	19
	Trees and other perennials	45
	Diversity of activities, products and services	21
2. Synergies	Crop-livestock-aquaculture integration	22
	Soil-plants system management	41
	Integration with trees	33
	Connectivity between elements of the agroecosystem and the landscape	33
3. Efficiency	Use of external inputs	31
	Management of soil fertility	41
	Management of pests and diseases	40
	Productivity and household's needs	48
4. Recycling	Recycling of biomass and nutrients	44
	Water saving	45
	Management of seeds and breeds	35
	Renewable energy use and production	15
5. Resilience	Stability of income/production and capacity to recover from perturbations	36
	Mechanisms to reduce vulnerability	33
	Environmental resilience and capacity to adapt to climate change	28
	Average score on the element of Diversity	34
6. Culture and food tradition	Appropriate diet and nutrition awareness	57
	Local or traditional identity and awareness	39
	Use of local varieties/breeds and traditional knowledge for food preparation	43
7. Co-creation and sharing of knowledge	Platforms for the horizontal creation and transfer of knowledge and good practices	23
	Access to agroecological knowledge and interest of producers in agroecology	35
	Participation of producers in networks and grassroot organisations	38
8. Human and social values	Women's empowerment	53
	Labour (conditions, etc.)	49
	Youth empowerment and emigration	25
	Animal welfare (if applicable)	29
9. Circular and solidarity economy	Products and services marketed locally	46
	Networks of producers, relationship with consumers and presence of intermediaries	30
	Local food system	31
10. Responsible governance	Producers' empowerment	45
	Producers' organisations and associations	15
	Participation of producers in governance of land and natural resources	54

these are the insufficient direct connection to consumers and significant dependence on intermediaries. At the same time, farmers and their families greatly depend on products sourced outside their communities. Related to these lacunae is the absence of mutual support between producers, partly caused by the region's isolation.

In terms of their resilience, farmers revealed a low capacity to adapt to climate and environmental change. All of them were affected to some extent by climate change, particularly the significant loss of water resources that occurred in the year this paper was written. Most traditional and proto-agroecological farmers do not have ready access to credit lines and insurance, which are essential mitigating factors for climate and economic stress. Traditional farmers were all found to be operating at the limit of their ability to sustain themselves economically and ecologically. Many of the farmers had seen their annual returns decrease despite maintaining their level of production due to the current economic climate, where input factors are becoming drastically more expensive. At the same time, this is not accompanied by higher prices for producers.

On the positive end of the scale, farmers showed several strengths as well as potential. As a rule, the people interviewed: reasonably integrated agricultural production with trees; self-produced a good part of the seeds they used and bought most of the animals locally; managed to market all or part of their products locally (in the case of traditional horticultural and fruit growing farmers); had reasonable access to or mastery of agroecological knowledge and were somewhat interested in agroecology; remained connected to their local communities, participating in local cultural events, and identified with traditional local culture; showed a good diversity of crops and trees and other perennials; and applied good practices such as mulching and crop rotations to preserve soils. In addition, most farmers had good knowledge of alternative practices to avoid the application of synthetic products. The majority recycled at least some of the biomass produced on their farm as well as other wastes. No hunger was observed among the people interviewed in the municipality of Odemira: all had access to diverse and nutritious food and were able to meet most of their food needs with their production. Farmers also sought out different ways of saving and conserving water. Moreover, although they generally considered that the work was hard, they were satisfied with their working conditions and felt entitled to make their own decisions. Significantly, women were involved in or shared decision-making in practically all production systems. Farmers were aware of their rights, although they did not necessarily consider that these were respected.

The TAPE evaluation results were plotted against the farms' descriptive attributes: typology, geographical location, gender, farming system, and legal status. Geographical location and typology showed a significant difference in scores between farmers and were thus further explored. Figure 2 plots the TAPE results on the 10 criteria according to geographical location. The farmers in the littoral zone showed a high degree of transition in only two sustainability categories—Responsible Governance and Resilience—which can be attributed to their larger size, sales- and export orientation, and their better integration in producers' organisations and associations. Hence, these producers are empowered and have control over their human, social, economic, and political rights due to their capacity and means to develop their livelihoods, improve their competencies, and request assistance to access markets or political institutions. Likewise, in terms of resilience, most of these producers have a stable income, stable production, and ready access to credit, thus, a greater capacity to recover after any disturbance. They also receive most of the national/European subsidies and tax benefits. Nevertheless, the littoral farms scored lower than those in the other regions in most categories: Synergies (lack of integration of animals and/or trees in their crop production), Circular and Solidarity Economy (no connection with consumers), Efficiency and Recycling (little or no interconnection between elements in the production system), and, albeit less significantly, Diversity (favouring monocultures), Human and Social Values (significant social and economic gap between landowners and agricultural workers, the former controlling the labour relationship and conditions), and Culture and Food Tradition (feel less connected to the community and local cultural and food traditions).

While Figure 2 shows that farmers in the interior and intermediary zones had scores that were close, intermediary zone farmers may have a modest advantage because they have better access to infrastructure and markets, as well as a more organised engagement with their communities.

Farmers in the interior—a region that is becoming more and more arid—typically have more ageing and isolation issues. However, isolation has been shown to encourage the production of farm inputs (such as natural fertilisers) and the choice of a wider variety of plants, trees, and crops. Additionally, these farms frequently employ more resource-saving practices. This once again demonstrates that sustainability is possible despite the challenging circumstances on some farms, even though socioeconomic and democratic mechanisms (e.g., inclusion) are required to combat marginalisation, isolation, and poverty.

Figure 3 displays the TAPE results by farm typology (traditional, proto-agroecological, and conventional). These results largely support the discussion regarding Figure 2: conventional export-oriented producers (located in the littoral) have the means and resources to mobilise networks, create partnerships, access knowledge and technology, and manage labour relations and conditions, while they can mitigate the effects of climate change with access to capital. Nonetheless, their weaker score overall can be related to their choice of intensive industrialised agriculture, which tends to rely on external, often synthetic, factors for their inputs, has low integration of animals and trees, and is focused on export.

It is also evident that traditional farmers in Odemira frequently have more unstable land ownership, suffer from worse working conditions than other typologies, are more isolated, on average older, and lack access to networks or platforms. Of all farmers in the region, these traditional

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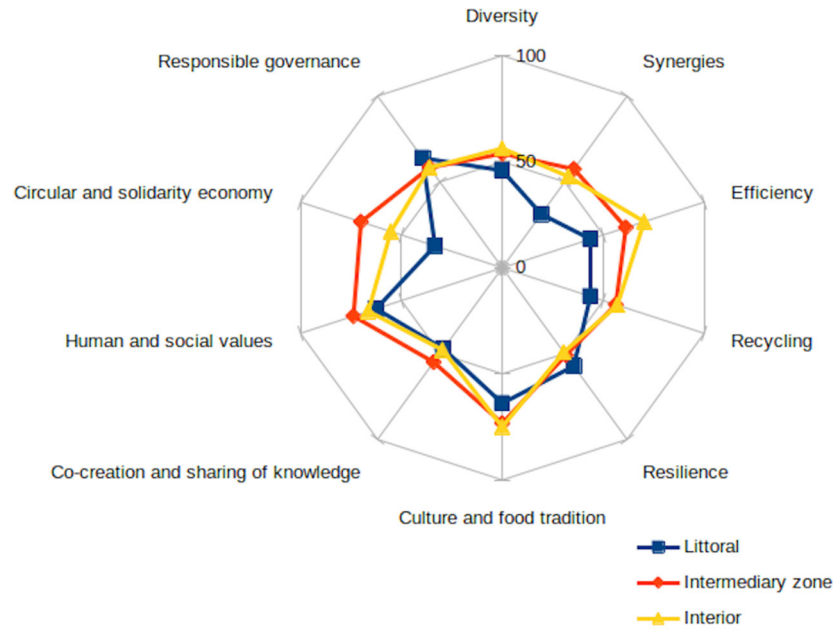

FIGURE 2
Results of TAPE—Step 1 according to geographical area.

farmers are politically the most marginalised and susceptible to precariousness with little capacity to improve their situation.

Figure 3 additionally confirms that the proto-agroecological farms dominate the ratings. They display the strongest sustainability score of all surveyed farms in seven out of 10 categories, namely Diversity, Synergies, Efficiency, Recycling, Co-creation and Sharing of Knowledge, Human and Social Values, and Circular and Solidarity Economy, despite being slightly less resilient and less in control of land and resource governance than conventional farmers. Although there is room for improvement, e.g., the better integration of animals in the production system and a better choice of crop diversity, this type of production is the most consistent and promising in achieving a successful transition towards sustainable ecological farm systems.

Finally, it is also apparent from Figure 3 that conventional/industrial farmers show the least consistency in their scores. While strong on Responsible Governance and Resilience, they are fragile on Synergies, Efficiency, and Circular and Solidarity Economy, with low scores as well on Diversity and Recycling.

The results of this evaluation were consistent with what Mottet et al. (2020, p. 7) predict: high scores across all 10 elements are necessary to achieve sustainability/agroecological transition in a specific system. On the whole, it is possible to postulate that Odemira's food systems show good potential for becoming agroecologically sustainable food systems, with proto-agroecological systems taking the lead. However, as will be deliberated in Section 4, a number of conditions and mechanisms need to be in place for these farms to thrive. The conditions refer mostly to the protection of and access to essential resources, such as water, and the putting in place of infrastructures to support the local food systems. The mechanisms needed are mostly democratic in nature: the organisation of producers in networks, cooperatives, and associations; the promotion of knowledge-sharing; the establishment of a closer connection between local producers and local consumers; and improvement of working opportunities and conditions in farming.

3.3. Collective analysis of the Odemira agro-territory

The collective appraisal exercise, conducted during a workshop, focused on the identification of (i) the agro-territory's strengths, weaknesses, opportunities and threats (SWOT analysis); (ii) the primary problems affecting Odemira's food and farming systems; (iii) the analysis of the root causes and effects of the top three problems.

The strengths put forward by participants and interviewees related primarily to the existence of a more traditional/organic type of production, a connectedness to the land, and the persistence of a traditional and peasant identity, of which traditional seed saving and participation in cultural events were good indicators. To this, participants

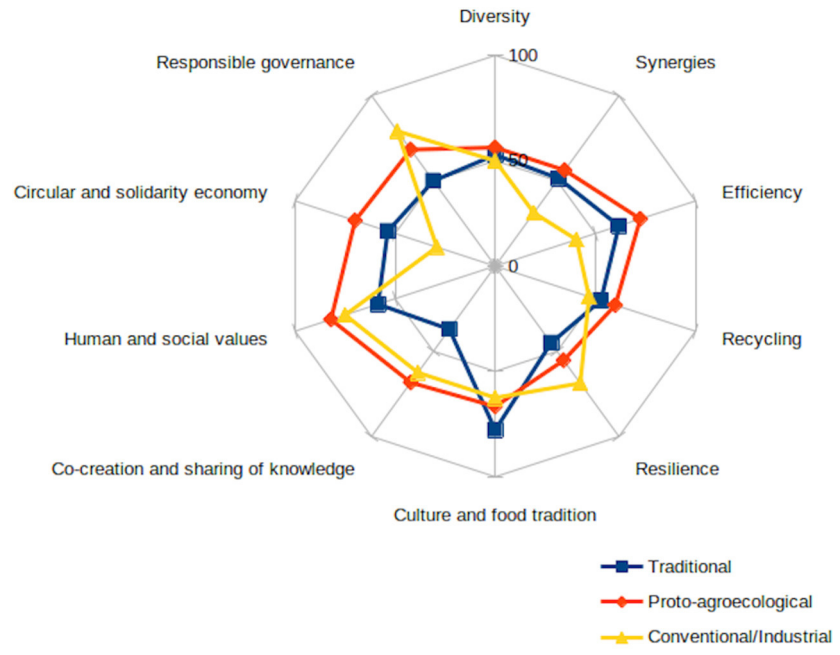

FIGURE 3
Results of TAPE—Step 1 according to farm typology.

added the advantages of a vast territory with favourable morphogenetic characteristics and the development of new diversity with the arrival of immigrants. The latter phenomenon acts as a cultural "melting pot" that is leading to new, more democratic organisational forms, including new cooperatives and different ways of engaging with diverse rural realities.

Turning to the agro-territory's weaknesses, participants and interviewees highlighted the effects of the recent rapid development of intensive industrial agriculture and tourism. This has come with many hidden costs, including reports of modern slavery, human trafficking, overcrowded housing, and generally poor working conditions for agricultural workers. Human trafficking and exploitation, according to several of the local actors who were interviewed, are "out of control" since the county is not socially or institutionally equipped to handle the current level of incoming demands. Examples of the county's lack of readiness include the national government's dearth of assistance, institutional inefficiencies including a lack of oversight or legislative measures to prevent corruption, and the ambiguous actions of temporary employment agencies. Participants also mentioned that there is no real possibility for integration, as most of the people working in agricultural enterprises are temporary labour and tend not to settle in the territory, which means that new, non-integrated migrants are constantly replacing integrated ones. As a result, it is imperative to intensify efforts to settle migrants. Additionally, there is a need to address the rise in rents and other basic costs brought on by a perverse "business model" that takes advantage of immigrants by overcharging them for housing in addition to their entry into Portugal. This new "market" is causing homes and even commercial facilities to be diverted to accommodate migrants.

Other weaknesses mentioned were the lack of support, disempowerment, and insufficient mechanisms to access and control land and resources for small-scale and/ or traditional producers. The continued disinvestment in local services/ infrastructures and the monopolisation of investment for transnational agribusinesses have established a trend of privatisation and mismanagement of natural resources. These power asymmetries have created a lack of long-term vision, prioritising market needs, thus generating a loss of collective mechanisms, weakening or eliminating the democratic control of producers and other food actors over their food systems—i.e., their food sovereignty—and increasing land abandonment.

In terms of the agro-territory's opportunities, three dimensions emerged:

- **Climate dimension:** Climate change can be considered an opportunity to foster improved and healthier relations with food production, such as developing strategies for rain-fed agriculture or experimenting with desalination, counter desertification processes, and taking advantage of Odemira's two production seasons.

- **Environmental dimension:** Participants identified three groups of opportunities, namely (i) increasing R&D (e.g., environmental impact assessments, Odemira as a regenerative laboratory, independent research on soil and marine life, investing in and developing social technology opportunities, empowering and modernising small/traditional farms to realise new production models based on dialogue and cooperation); (ii) three R's—recovery, requalification, and reconversion (e.g., requalification of the greenhouse zone, reconversion of the eucalyptus monocultures into biodiverse forests, recovery of water lines); and (iii) conservation (e.g., creation of a fishing reserve).
- **Socio-economic dimension:** Participants identified opportunities for fostering a more inclusive, sustainable development for the region. Undeniably, agricultural systems can horizontally produce wellbeing. In order to democratise local food systems, some critical adjustments must be made, such as funding for rural regeneration projects, support for smallholder traditional as well as sustainable farmers, promoting local markets, or implementing community-supported agriculture. Similarly, it was suggested that local producers needed to feel more empowered, especially those who wanted to produce in a more sustainable way. This could be achieved by promoting alternative education that combines traditional and contemporary knowledge of food systems, such as traditional seed preserving methods and decentralised on-farm solar energy generation. Ideally, this would entail engaging in dialogue with the different players in the food chain, including multinational corporations and civil society organisations. The need for establishing safety measures, such as a mandatory fund for dismantling intensive farming operations in the case of bankruptcy, including the plastic greenhouse structures, was also emphasised. Lastly, the prospect of sustainable tourism was discussed, such as that proposed by the regional community-based initiative "Rota Vicentina".

The major threats identified by the workshop participants and interviewees related mainly to socio-economic, political-democratic, and environmental issues. Specifically, they pointed out threats related to neoliberal economic globalisation, neo-feudalism, and gentrification, such as the vulnerability of migrants, lack of protection mechanisms for and marginalisation of small-scale farmers and other traditional producers, corruption in power positions, and the erosion of traditional knowledge and practices. The latter is an indication of how a market paradigm that favours monocultures, intensive farming, mining, and gas and oil exploration has transformed society. The workshop participants further identified the following threats as being extremely problematic: the dominance of eucalyptus, an invasive but lucrative tree species; the exclusion of small-scale farmers from water irrigation systems; the danger of plastic contamination; and the loss of fertile soil, seeds, and biodiversity.

The identification of weaknesses and threats supported the next step in the exercise, where participants were asked to identify and then rank the principal problems in Odemira's food and agricultural systems according to their perspective. This resulted in the following ordinal list:

1. Dominant neoliberal/capitalist political vision.
2. Lack of articulation between small farming, local development associations, and other public institutions.
3. Planned disarticulation between policy and territory.
4. Non-recognition of the social and ecological functions of the earth and nature.
5. Commodification, e.g., common goods transformed into merchandise (water, soil, seeds, food).
6. Disempowerment of the rural ways of life.
7. Collusion with agribusiness and corruption by local authorities.
8. Dominance of the monoculture model.

This prioritisation is in line with the conclusions of the baseline study presented in Section 3.1.

In closing, participants were asked to delve deeper into the top three problems, pointing out what, in their view, were the major causes and consequences for each of these. These so-called problem trees are presented in Figures 4–6, respectively, and mirror the conclusions of the SWOT analysis as well as the baseline analysis of Odemira.

A central idea that emerged from the workshop was that the region's recent transformation could be attributed to its increasing specialisation in export cash crops, implemented within a large-scale intensive industrialised monoculture approach, which is supported by subsidies and dominates the use of resources in the region, such as soil, water, biodiversity, but also housing, commercial spaces, and the job market. At the same time, small-scale farmers experience a lack of technical support and bureaucratic obstacles to getting their products to market, and are excluded from democratic participation in the discussion of the territory's governance. It is clear that other food actors, whether local associations or local politicians, also lack the democratic and legal mechanisms to invert the tendencies in their territory. The relatively rapid growth of the agro-industry has had severe socio-economic and environmental consequences, among them the uncontrolled flux of migrants who live in less than optimum conditions, the upward pressure on housing and other prices, the depletion of water sources, loss of topsoil, habitat destruction, and a significant decrease in biodiversity. These dynamics have resulted in a feeling of growing social injustice and growing inequality, with wealth concentrated primarily in those benefiting from the new market model,

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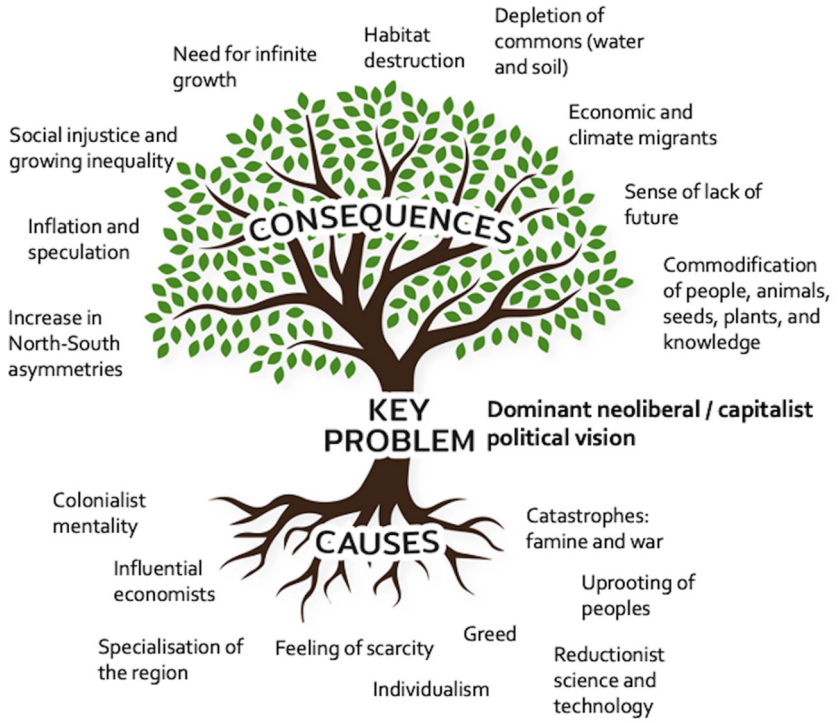

FIGURE 4
Problem tree 1—Dominant neoliberal/capitalist political vision.

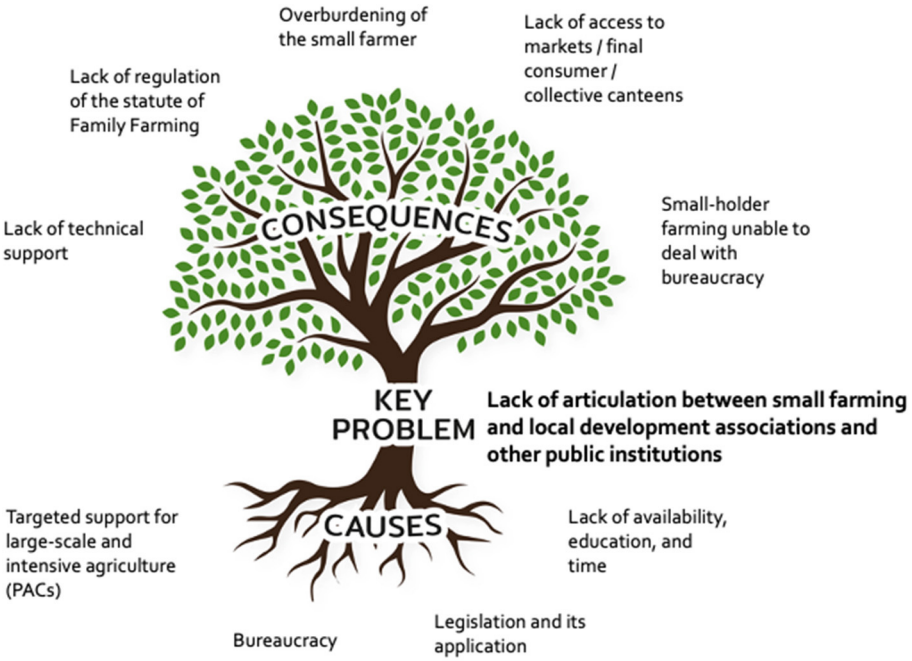

FIGURE 5
Problem tree 2—Lack of articulation between small farming and support institutions.

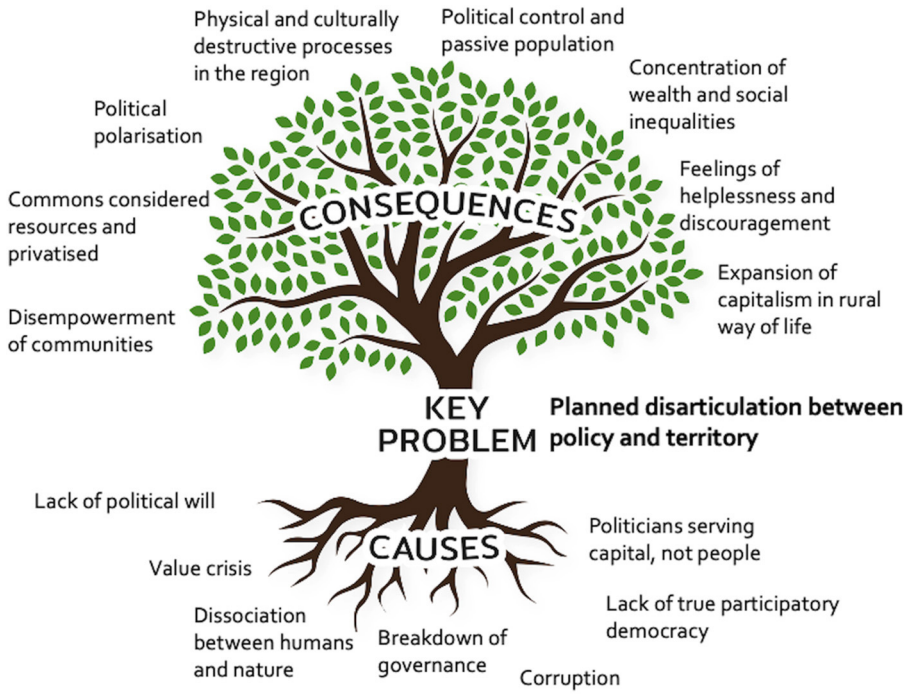

FIGURE 6
Problem tree 3—Planned disarticulation between policy and territory.

further deepening a sense of discouragement and of a lack of future.

4. Discussion

The agro-territory of Odemira is affected by stressors from climate change, including drought, water scarcity/pollution, and soil loss, as well as the consequences of political abandonment and power imbalances, as discussed throughout this paper (lack of infrastructures, lack of job opportunities, the dominance of large-scale monoculture development, deficient migrant integration, inadequate democratic mechanisms such as the lack of inclusion of residents in land and water management).

In addition, we argue that Odemira represents the contemporary clash of agricultural models in Europe, as evidenced by the tensions listed below:

- The marginalisation of small-scale family farmers who are increasingly facing disempowerment and even extinction.
- Heavy investment and political support for large-scale hyper-intensive agrarian projects, to the detriment of small-scale as well as sustainable farming systems.
- Upward pressure on rents and other prices.
- De-development in light industry and services.
- Conflicts over land and water management.
- Human rights infractions, e.g., exploitation of migrant workers.

The combination of these multiple stressors and tensions results in what we have termed "depressed and contested" agro-territories, where we find not only socio-economic and ecological distress but also political conflict over scarce resources, resulting in disempowerment and diminished food sovereignty of rural communities.

This study found that farming practices trumped farming conditions. Overall, farmers in the intermediary and interior zones, despite having more challenges, had very similar and reasonably good scores on most criteria, with a slight advantage for intermediary zone farmers, who have better access to infrastructures, markets, and consumers. Farmers from the coastal zone, despite their superior edaphoclimatic and infrastructural conditions, scored lower on almost all the 10 sustainability criteria than farmers in the interior and intermediary zone, mostly due to their choice of production system: intensive with high external, synthetic inputs. Although farmers in the interior were generally poorer and had worse working conditions (suffering the highest water stress), their isolation favoured the generation of inputs on the farm and a higher range of diversity of animals, trees, and crops, making them more efficient, and better at recycling nutrients and creating synergies within their production system.

Proto-agroecological farms were shown to hold the highest scores overall. Even though these production systems would benefit from better integration of animals and wider crop diversity, these farmers are nevertheless the most consistent, adaptable, and likely to achieve a successful and multi-dimensional transition towards socially and ecologically sustainable farming systems. The farmers in these production systems tend to be younger (often neo-agrarians, often foreigners), with higher education, have access to knowledge-sharing mechanisms, favour direct relations with their customers, and have better seeds and breeds management, choosing climate-resistant varieties that support land regeneration, flora, and fauna. These farmers were the most empowered of the non-industrial typologies. Their capacity to network and defend their democratic rights gives them an advantage over the traditional farmers. At the same time, their often-innovative farming practices (e.g., agro-forestry, market-garden) constitute a model to replicate to build resilient, healthy, and viable food systems. This typology shows the most promise of championing food sovereignty in depressed and contested agro-territories.

Traditional farmers showed a strong identification with the rural identity and the land, and most had not forgotten (although not always applied) sound ancestral practices. But for the most part, these farmers were the most fragile: in general, they were older, had less education, were more isolated, lacked integration in organised networks (often not by choice, but for lack of initiatives in their area), worked under harsher conditions, and were subject to more precarious land ownership situations. Since enhancing the welfare of traditional farmers, who make up the majority of farmers in the region, will typically also enhance the welfare of the rural people, any interventions in Odemira's food and farming systems must take these actors into consideration. On the coastline, however, it is crucial that steps be taken to supervise the working and living conditions of migrant workers in the berry industry, as well as reinforce infrastructures and institutions, since these workers currently are overtaking the population of coastal towns in numbers.

The results of this collective assessment and reflection with key food actors in Odemira underscore the asymmetries that result from divergent visions for Odemira's agri-food future: one that supports and modernises small-scale and traditional farming within healthy, collectively managed agroecosystems and another that sustains the expansion of intensive industrial agriculture, boosting profits for some, creating burdens for everyone else. Food actors in this study strongly favour the empowerment of actors left behind in the industrialisation of Odemira's food and farming systems, as well as the diversification of crops, the regeneration of lands, the fusion of ancestral and modern practices, and alternative economic arrangements that favour smallholder farmers. They see a need for an ecological as well as democratic systems change, from reconnecting with nature and respecting the limits imposed by the local realities to exploring further sustainable development mechanisms based on human rights protection, community empowerment, social justice, and the redistribution of wealth. Food sovereignty is the best paradigm to help realise these democratic attributes: by placing food system governance with those actors that not only benefit most from them but are also the first to suffer the consequences from their mismanagement.

The results show that Odemira's principal actors favour a different model of development, cooperative rather than competitive, sustainable, democratic, and solidary, rather than industrialised and elitist. They believe such an economic model produces more widespread benefits, with more job diversity, career opportunities, civil society involvement, and wealth distribution. A more diverse food and farming system would spawn a wider variety of businesses and services both at the input as well as the output level, rather than the current industrialised system, which operates entirely independently from the agro-territory, concentrating wealth at the level of capital-holders, while leaving the territory to deal with the many externalities.

5. Conclusion

The present study focused on the plight of depressed and contested agro-territories in Europe, using the example of the region of Odemira in Southwest Portugal. We defined depressed and contested territories as areas that:

1. suffer from pervasive socio-economic and ecological distress due to factors such as climate change and over-development followed by de-development and political abandonment;
2. simultaneously are the object of competing developmental and market models.

In answer to the study's research questions, the results firstly established Odemira's main challenges and its status as a depressed and contested territory. Odemira is particularly impacted by climate change, experiencing rising drought, biodiversity loss, loss of topsoil, and depletion of water sources. Also, the territory has little to no resilience to mitigate these effects due to decades of political marginalisation that caused disinvestment in crucial infrastructures and other services sectors. At the same time, all the available land, some of it located in protected areas, is being snatched up by agribusinesses operating in a hyper-industrialised model of farming. These activities are causing additional stress on common resources such as soil, water sources, health of (agro)ecosystems, but also the fragile infrastructures of the region.

Secondly, the analysis revealed that the primary sources of conflict in Odemira are the rapidly expanding hyper-industrialised farming ventures. This politically motivated large-scale industrial agriculture development, in combination with the persistent underinvestment in the services, infrastructures,

and technologies connected to smallholder and sustainable farming, are the primary cause of the deterioration of the socio-ecological and socio-economic circumstances in the agro-territory. Traditional, peasant, smallholder, and sustainable farmers are increasingly being cut off from access to markets, essential resources like water and technical and institutional support, having no democratic or legal mechanisms at their disposal to halt this assault. As a result, their financial returns are evaporating quickly. We observed the evident despair, concern for the future, and dissatisfaction with local and national authorities when we interacted with traditional farmers. Other local food actors complained that they felt their communities were being abandoned and vital rural infrastructures neglected. Sustainable farmers claimed they received little or no recognition for the ecosystem services their production systems provide.

Thirdly, the study collectively diagnosed the main factors feeding into and aggravating the agro-territory's challenges and tensions, which were deemed to be:

- The political support for a neoliberal capitalist vision for agriculture, placing it on a trajectory of hyper-industrialisation and hyper-specialisation aimed at the global markets.
- The parallel marginalisation and abandonment of small-scale farmers, whether traditional or proto-agroecological, leaving them out of decision-making and isolated from essential support structures (e.g., local development associations and irrigation sources). There are currently no democratic or legal mechanisms for these actors to influence decision-making on natural and institutional resources.
- The disassociation of national agricultural policies from the territory's actual needs and possibilities, particularly the inability to regulate savage farming practices, stop the privatisation of common resources, and regulate access to land.

No political solution has been proposed for Odemira's predicament despite international commitments (e.g., the UN's SDGs, the EU's Green Deal, mainly the Farm to Fork and Biodiversity strategies, the Eco-schemes under the new Common Agricultural Policy, and the Climate and Energy Framework), all of which require translation into national strategies and law. It is likely that Odemira will be unable to fulfil the objectives of SDG 2 (Zero Hunger), particularly when it comes to doubling the agricultural productivity and incomes of small-scale food producers until 2030, guaranteeing secure and equal access to land and other necessary inputs (target Section 2.3); and fostering sustainable food production systems through resilient agricultural practices (target Section 2.4).

At the same time, the study showed that numerous opportunities exist to invert Odemira's current trend, provided investment and subsidies are diverted from hyper-intensive farming practices to smallholder, traditional, and proto-agroecological initiatives. With the proper support and a balanced blend of ancestral knowledge with modern regenerative techniques, the latter presents the best odds of reviving Odemira's communities, local economies, and agroecosystems.

In conclusion, Odemira's plight as a depressed and contested agro-territory stems mainly from severe deficiencies in food democracy and food sovereignty through the imposition of a dominant neoliberal market model, which excludes many essential food actors, mainly traditional but also proto-agroecological farmers, with an emphasis on women farmers, civil society movements, as well as the growing group of migrant workers, from deciding on the model they desire for Odemira's food future. This study asserts that for these groups to regain democratic control over food and natural resources is a precondition to attaining the sustainable development sought after by the EU, including the fulfilment of SDG 2 and the Farm to Fork Strategy.

Due to the contributions of local food system actors, this study's methodological approach is particularly adequate for the setting of multiply stressed agro-territories, being flexible enough to incorporate local specificities. It is suitable for simultaneously tackling structural injustice and agricultural (un)sustainability within the framework of agroecology and food democracy. On the one hand, it places the more vulnerable actors on centre stage and is specifically adapted to people with little formal education. On the other hand, it proves to be robust in assessing the performance of agricultural systems across multiple dimensions, using FAO's tool, TAPE, combined with collective reflection exercises.

The insights provided by this research can assist other European agro-territories in dealing with the ecological, political, and democratic tensions that derive from a focus on growth, profit, and upscaling through industrialisation rather than food sovereignty and the health and justice of local food systems. It becomes clear from this study that the "business as usual" approach in food and farming will aggravate the fate of depressed agro-territories, which will experience increasing pollution, water stress, land abandonment due to ageing and lack of opportunities for smallholder farmers, and the rapid deterioration of agro-ecosystems. Odemira's predicament as the epitome of the clash of agricultural models in Europe could serve as a baseline for other studies where disputes over land, water, and the choice of agricultural knowledge and practices are being discussed. The ways forward proposed by the Odemira agro-territory's local food actors are anchored in the joint frameworks of agroecology and food democracy, such as the regeneration of agroecosystems, redistribution of agricultural subsidies, implementation of policies of inclusion and political participation in decision-making on crucial, common resources (i.e., realisation of food sovereignty), and the maximisation

of wellbeing of the weakest elements in rural communities. With further research, their proposals could serve as a model for transitioning to a sustainable and just development of the agri-food sector.

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. The patients/participants provided their written informed consent to participate in this study.

Author contributions

LH, KS, and ME: conceptualisation, research and tool design, data collection, data analysis, data visualisation, and writing, review and editing. LH and KS: writing original draft Sections 1, 2, 3.1, 3.3, 4, 5. ME: writing original draft Section 3.2. All authors contributed to the article and approved the submitted version.

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Conflict of interest

The authors declare 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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Community-supported agriculture as food democratic experimentalism: Insights from Germany

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This paper analyzes community-supported agriculture (CSA) as a particular form of democratic experimentalism in food systems. Specifically, we explore both primary and secondary CSA initiatives in Germany, based on participatory observation on meetings and workshops, and on qualitative interviews. Opposing the industrial food system and market-based food distribution, CSA activists envision transformative change toward a sustainable, regionalized, and more democratic food system. A key feature of CSA as a specific form of alternative food organizations is its underlying collaborative effort among farmers and households: consumers take over production risks, make investments in their CSA and share crops, whereby they decouple producers' income from harvest yield and market prices. Employing a perspective that is informed by John Dewey's notion of democratic publics and experimentalism, we show that both on the primary and secondary levels as well as in collaboration with other political, economic, or civic actors, CSA is a manifestation of civil society's ongoing and never-ending inquiry to find joint solutions for their shared problems. We explore CSAs as democratic forms, in terms of their diverse internal structures and practices within the primary initiatives and also the secondary network. Furthermore, we reflect on their overall potential to democratize food systems. On all levels, we find the modus of experimentalism as the essential form of democratic inquiry. We show how the varying kinds of democracy that are embodied by primary initiatives differ from one another, and what kind of boundaries exist. These boundaries, inter alia, limit CSA's potential to achieve food democracy on a societal level, if democracy means giving everyone the opportunity to have a say whenever they are affected.

KEYWORDS

community-supported agriculture (CSA), democratic organizations, alternative food organizations, networks, food democracy, John Dewey, experimentalism, transformation

1. Introduction

The design of current food systems is part and parcel of contemporary capitalist societies in their unsustainable drive for over-exploiting natural and social resources. For example, carbon emissions from food systems account for up to 30% of total anthropogenic emissions (Vermeulen et al., 2012, p. 198). Monoculture farming and pesticide usage are key drivers of habitat and biodiversity loss (Benton et al., 2021, p. 6). Overall, agricultural production is a major stressor that contributes heavily to crossing planetary boundaries (Campbell et al., 2017). This is mirrored in the everyday experience of farmers all over the world: droughts, heavy rainfall, and changing local environments all hint at the unsustainability of current food system structures—as do the poor working conditions of laborers in the field or meat and dairy industries as well as the malnutrition of consumers. Therefore, the mainstream food system not only has a negative impact on the environment, but also on health

conditions, and it contributes to "inequalities among consumers, workers and citizens more generally" (Lorenzini, 2022, p. 2).

Yet food systems are highly contested, therefore alternatives are being explored, and social movements all over the world strive for another way of organizing, producing, distributing, and consuming food. Such alternative food organizations, aiming at transformation as a trajectory toward sustainability (Adloff and Neckel, 2019), have been invigorated in recent years, predominantly in urban settings, aiming to transform local food systems to make them more sustainable, inclusive, and democratic (cf. Counihan and Siniscalchi, 2013; Alkon and Guthman, 2017a; Kropp et al., 2021; Zoll et al., 2021). Huber and Lorenzini (2022, p. 2) define alternative food organizations (AFOs) "as non-profit organizations or social enterprises, which contest, counter or reduce one or several of the mainstream food system's negative externalities or question the overall mainstream food system." However, even if these movements constitute a field (ibid.), they are rather heterogeneous in terms of their visions, practices, and organizational structures. According to Huber and Lorenzini, only few of these movements engage in political action or embrace transformative goals for the broader society (ibid., 16). Instead, they rather try to establish small-scale solutions for their members and often rely on market-based modes of action, building on the individual consumption choices that participants make in order to create alternatives (Lorenzini, 2019). Consequently, in their conclusion on new alternative food movements, Alkon and Guthman (2017b) are rather skeptical about their potential to actually change food systems for the better. They use the case of farmers' markets to illustrate that these movements—despite their underlying strong visions of alternative, healthy and sustainable food supply—foster rather "apolitical" responses to the harmful structures within the global food systems. Alkon and Guthman identify only "little effort to build coalitions, pressure regulators, change policy and enforcement, or remake political institutions illustrates the strong vision for social change" (Alkon and Guthman, 2017b, p. 317). Yet this kind of individualistic "political consumerism" (Lorenzini, 2022) does not resemble every single kind of alternative food organizations. Some organizations, indeed, constitute "food collectives" that do not focus on individuals and consumption, but on communities and the relation between consumers and producers (Lorenzini, 2022, p. 221f.). They raise the issue of food democracy that aims at enabling civic participation in decision-making processes on how food shall be produced, distributed and consumed (Hassanein, 2003; Renting et al., 2012; Fladvad, 2018; Lorenzini, 2019; Sampson et al., 2021).

Against this backdrop, this explorative paper focuses on the issue of democracy, its meanings and the way it is institutionalized, specifically by analyzing the case of community-supported agriculture (CSA) initiatives in Germany. By analyzing CSA as a particular and collective action form of alternative food movements, we intend to highlight the political dimension that hints at the very idea of democratic self-governance of society itself. Thus, we focus on the issue of democracy in economic action from within civil society initiatives and organizations (Blome-Drees et al., 2021; Chen and Chen, 2021; Degens and Lapschieß, 2021). Often, a particular form of democratic governance – representative democracy, entailing a political sphere comprised of parliaments, presidentship and other institutional forms – is equated with democracy *per se*. In such a conception, democracy belongs to the public political sphere with its formal institutions, and not to the economy. Yet opposed to such a notion – and also widely shared – is the idea that democracy is about collective decision-making in various social spheres or arenas. In a juxtaposition, the former is linked, by and large, to the expression and accumulation of political decisions based on individual preferences, and the latter is linked to deliberative processes that establish, form, and alter political preferences in the first place (cf. Bonvin et al., 2018).

In this paper, we turn our attention to community-supported agriculture as collective food movements that are engaged in the local production, distribution, and consumption of food. CSA is an umbrella term for different models in which consumers and producers join forces in order to maintain an organic local food system on the basis of decent compensation for agricultural work (e.g., Cone and Myhre, 2000; O'Hara and Stagl, 2001; Schnell, 2007; European CSA Research Group, 2016; Hvitsand, 2016). Economically, the key mechanism is that consumers take over production risks, make investments in their CSA and share crops—meaning that producers' income is decoupled from harvest yield and market prices. Yet, the collaboration between consumers and producers and the democratic modes of governance suggest there is a political dimension to this phenomenon. This type of food movement is less about mobilization of resources to gain political power, and more about prefiguring sustainable food production and consumption on a small scale (Mert-Cakal and Miele, 2020 on CSA; on prefiguration see Yates, 2015; Schiller-Merkens, 2020; Monticelli, 2021).

Our aim is twofold: We want to explore to what extent CSA is democratic in terms of a) structures and practices within the field, given its diversity, and b) their overall potential to democratize food systems. We assess both specific visions and the ways CSA initiatives are governed democratically. The contribution is based on empirical insights from a qualitative study of CSA in Germany, assessing primary and secondary organizations as well as collaborating actors. It rests on data collected using participatory observation mainly in meetings and workshops hosted by the Network CSA ("Netzwerk Solidarische Landwirtschaft") – the major secondary actor in the field of CSA in Germany –, and semi-standardized interviews with members of single CSAs, the network, consultants and further experts in the field. To explore the role of democracy, we take a perspective that is informed by John Dewey's conception of the public and of democratic experimentalism. For Dewey, a public emerges when people share experiences, identify common problems that jointly affect them, and together aim to create solutions. Such solutions are specific to the particular context and might be realized on a small and temporary scale only. We aim to show that CSAs can be understood as economic democratic experiments and entail an element of democratic transformation of the food system – albeit with limited capacities. By comparing different types of CSA, our aim is not to assess what type resembles democracy more deeply than others, but to reflect on the "kind of democracy" and its underlying imaginaries (Fladvad, 2021, p. 9f.).

We assess both internal and external dimensions of democratic practices in the field of CSA. The internal dimension refers to the organizational level, i.e., the practices and internal governance of CSA and members' opportunities to meaningfully participate in decision-making processes. In a sense, we aim to assess if and how CSA can be labeled "collectivist democratic organizations" (Rothschild-Whitt, 1979; Rothschild, 2016; Chen and Chen, 2021). In particular, we show that different overall aims and visions have an impact on the way democracy is realized, resulting in different types of CSA. The

external dimension refers to the level of the broader society and to the overall potential impact of CSA regarding the democratization of food systems. This perspective raises questions on how inclusive CSA is, and what boundaries and limits exist. A Deweyan perspective on democracy allows us to highlight how shared problems are collaboratively identified and solutions based on joint action and newly generated knowledge and experience are tested.

The narrative in this article does not follow the research process itself. It serves to clarify the theoretical perspective, which, however, emerged only during the empirical research. The paper therefore offers a brief overview of the methodological approach and the underlying relation of theory and empirical findings (Section 2) as well as a conceptual discussion of the perspective of democratic experimentalism on diverse economies (Section 3). We then explain basic principles of CSA (Section 4) to firstly show that CSA can be understood as an expression of food democratic experimentalism in itself, by offering viable alternatives for joint decision-making of consumers and producers. Secondly, we explore internal governance modes and democratic practices within the CSA movement on micro and meso levels, highlighting difficulties, complexities and contradictions with regard to democracy. We also briefly reflect on the limits of food democracy as an outcome of CSA, focusing on broader social inequality that systematically hinders some groups (e.g., poorer households) to participate (Section 5). In the conclusion (Section 6), we reflect on insights gained as well as on both strengths and limitations of the approach. Overall, the contribution has an exploratory character.

2. Methods

As stated in the introduction, we assess CSA from the perspective of democratic experimentalism. However, as is usual in qualitative research, the process of research did not proceed in a linear fashion. On the contrary, empirical and theoretical research have always influenced each other. In fact, the relationship between theory and empirics can be conceived with Kalthoff as a "conversation in which empirics and theories mutually inform each other" (Kalthoff, 2008, p. 10, our translation). In our case, the first empirical findings exposed that many CSA activists perceived CSA initiatives as experiments or "Reallabore" (real labs) that aim to collectively find ways to establish a better, more sustainable and more inclusive form of agriculture (this issue was later also raised by Int4 and Int9). Some discussants suggested CSA is a tool for a larger societal transformation, others pressed the need to stabilize and support small-scale farming (see also Int3, Int4). Regardless of their differences, they agreed, inter alia, on the experimental character of CSA. They also stressed that those who are affected by any decision should have a meaningful voice (this was also raised by Int6). While not everyone raised the issue of CSA as democratic endeavors, the need to build non-exclusive communities that jointly have a say in the way food is produced and distributed has widely been expressed (also in Int2, Int7, and Int10). This initial insight lead us as researchers to deeper explore the notion of democratic experimentalism and to explicitly connect it to CSA. However, notwithstanding this reciprocal and dynamic relation between empirical and theoretical insights, the structure of this paper follows a rather conventional approach: in this section, we inform about the methods we employed for gathering data; in the following Section 3, we shed light on the conceptual issues that Dewey's idea of democratic experimentalism raises, before we report and discuss findings on democracy in CSA from a Deweyan perspective.

The research conducted for this contribution is part of a wider project called "Teilgabe"[1] that offers a comparative empirical study of civic economic action in Germany, with a focus on understanding the needs for support infrastructure in different sectors. The project "Teilgabe" investigates the capacity of networks, associations, and secondary cooperatives to provide such infrastructure. It specifically explores civil society initiatives in sectors such as agriculture, renewable energy production, seniors' social services, and digital platforms. So, the overarching research interest of the project is on the emergence of collaborative structures and the question to what extent secondary organizations can provide support services for primary organizations.

Our analysis of the field of CSA in Germany combines empirical research on various primary and secondary organizations. The empirical focus of our analysis of CSA is not on single local initiatives, but on their collaboration within the CSA network as the key actor on the secondary level. Accordingly, network activities and specifically network meetings comprise one of our main sources of information. Besides analyzing existing literature, documents and webpages of CSA organizations, we used participatory observation and expert interviews as the main sources of information. Table 1 comprises a list of both interviews conducted and events we attended as participatory observants.

In order to be able to capture ongoing dynamics and processes, we have continuously been observing the network since the fall of 2020. Participant observation was carried out in every semi-annual conference of the network since fall of 2020, and in various other network meetings and workshops. Due to the pandemic, most of the events have been held online. While this entails limitations for participatory observation, it also enabled us to gather data continually, as we were able to attend much more events than we would have been, had they been held in presence at different places in Germany. At least one of us attended, for example, a workshop on the creation of CSA in the cooperative legal form, on legal issues for CSA initiatives, an assembly of a primary CSA as well as their spring festival, and a bidding circle of another primary CSA. We have been participating in nine of the regular online meetings of the working group on cooperatives within the CSA network, and in the first meetings of the recently created working group on CSA and societal transformation.

We have been co-hosts of some of the events where we gathered data. During the 2022 fall meeting of the CSA network, for example, we conducted a so-called "open space" (see Section 5.2) to jointly discuss need for support infrastructures. In the summer of 2021, we co-organized a broader online workshop on opportunities and potentials for cooperation between CSA initiatives, municipalities, NGOs, networks and enterprises[2] Such collaborative efforts between researchers and practitioners illustrate our aim to not only conduct scientific research on distanced objects, but to also jointly generate

1 The German word "Teilgabe" is a neologism that entails "Teilhabe" (participation) and "Gabe" (gift). For more information see www.teilgabe.net.

2 The workshop was jointly organized by the Nascent project, the CSA network, and the Teilgabe project. For further information see https://www.nascent-transformativ.de/online-workshop-region-kooperation-transformation/.

TABLE 1 List of interviews (Int) and participatory observations (PO).

#	Type of organization	Position of interviewee/specification of event
Int1	Network on civic engagement	Executive director
Int2	Land purchasing collective	Member, co-founder
Int3	Nonprofit consultancy	Consultant on co-operatives
Int4	CSA working group	Member, co-founder
Int5	Primary CSA	Co-founder, gardener
Int6	Secondary CSA	Founder, director
Int7	Independent/collaborating with CSA network	Legal consultant
Int8	Secondary CSA	Founding member and CSA consultant
Int9	CSA network	CSA network representative; founder of a primary CSA
Int10	CSA network	Member of the Board; founder of a primary CSA
PO1	Working group of CSA cooperatives	Online conference, Nov 2020
PO2	CSA network	3-day-Fall Conference (online), Nov 2020
PO3	Research Institute	Workshop on Creating CSA in the legal form of a cooperative (online), Nov 2020
PO4	CSA network	3-day-Spring Conference (online), Feb 2021
PO5	Teilgabe, Nascent, CSA network	2-day-Online workshop on collaboration between CSA and allies (July and October 2021)
PO6	CSA network (co-organizer)	Workshop on legal and tax issues for CSA (online), Sep 2021
PO7	CSA network	3-day-Fall Conference 2021, November (online)
PO8	Competence and advice center for agriculture and horticulture (Hamburg)	Introduction to CSA (in presence)
PO9	CSA network	Members meeting (online), Nov 2021
PO10	Primary CSA	Bidding Circle for business year 2022, Feb 2022 (online)
PO11	Primary CSA	General Assembly, March 2022 (online)
PO12	CSA network	3-days-Spring Conference (online), March 2022
PO13	Primary CSA	Spring festival (in presence), May 2022
PO14	Working Group on CCSA and Transformation	2 initiation meetings (online), May, June 2022
PO15	CSA network	3-days-Fall conference (online), Nov 2022
PO16	Working group on CSA cooperatives	9 meetings since October 2021 (online)

All semi-structured interviews were conducted between August 2021 and December 2022; they ranged from 60 to 120 min.

knowledge that is rendered valuable by the practitioners themselves. In a sense, this approach is also part of a pragmatic research approach (see Section 3).

In addition to participatory observation, we have been conducting several semi-standardized interviews with members of single CSAs, network representatives, consultants, and further experts in the field. The interviews lasted between 60 and 120 min, with some exceptions of shorter interviews. They were used to gather additional background information, to dig deeper into particular issues that have been identified as relevant during participatory observation, and they also provided ideas and issues for further investigation.

3. Dewey's democratic experimentalism in diverse economies

The concept of democratic experimentalism, found in many recent conceptions of transitional change, has prominently been reinvigorated by Wright's (2010) notion of "real utopias." Such real utopias may pave the way for interstitial change to overcome capitalist structures, or the emerging discourse on prefigurative politics (Monticelli, 2021) and organization (Reinecke, 2018; Schiller-Merkens, 2020; Chen and Chen, 2021). Initiatives that aim to decentralize, democratize, and socially embed the economy are seen as opportunities to repoliticize the economy (Deriu, 2012; Asara et al., 2015). This repoliticization in turn might contribute to large-scale transformation processes toward degrowth and sustainability (ibid). The "diverse economies" framework (Gibson-Graham, 2008) is also nested in democratic experimentalism. Its proponents demand to overcome the capitalocentrist view of the economy that, according to Gibson-Graham, disables us to even perceive non-capitalist economic forms that do not rely on the growth paradigm, private property, and the market. In fact, many community economies – broadly understood as "economic spaces or networks in which relations of interdependence are democratically negotiated by participating individuals and organizations" (Gibson-Graham, 2008, p. 627) – might best be described as initiatives

in which "people are experimenting with other ways forward" (Gibson-Graham, 2014, p. 151). Diverse economies allow to "explore the choices we make to perform the economy and its future as either a singular inevitability or a field with a variety of potentials that is open to experimentation" (Roelvink et al., 2015, p. 1).

It is this notion of experimentation that combines democracy with economic action that can be found in the field of CSA. In the following, we outline key insights that the pragmatist philosopher and social reformer John Dewey has to offer for the understanding of democracy and democratic experimentalism. With Dewey, democracy is not to be perceived as something to be ever achieved but as an ongoing process of building communities around alternative economic practices and organizations. Dewey conceives of democracy not as a concept of institutionalized state governance; for him, democracy refers to the "idea of community life itself" (Dewey, 1927, p. 148) and even more generally to a "way of life" (Dewey, 2021 [1939], p. 63). In this sense, democracy is found in everyday life and in various associational forms. Dewey asserts a natural human desire to cooperate, and he perceives is not simply a mechanism to collaboratively coordinate action, but, to him, it also entails a deep moral dimension as it enables everyone to participate in their community (Adloff, 2016, p. 79–81). In fact, a democratic community is not a given, but only emerges from "joint activity" (Dewey, 1927, p. 150) in favor of problem-solving processes of common interest or future concern. For Dewey, democracy is the process of jointly sharing experiences, identifying problems and creating solutions. It is this process from which concerned publics emerge in the first place. I.e., when people realize that they are affected by actions and decisions beyond their individual control, and they come together to do something about it, they form a public (cf. Fladvad, 2021). For Dewey, "indirect, extensive, enduring and serious consequences of conjoint and interacting behavior call a public into existence [. . .]" (Dewey, 1927, p. 126).

Because problems cannot be deduced on an abstract level but only be observed "from a perspective someone actually inhabits" (Hildebrand, 2011, p. 591), the observation of any problem is closely tied to real-life experience. It inevitably depends on a particular standpoint. In democratic societies, the public as a social sphere allows people that are "naturally interdependent and gregarious, to reflect deliberately on its spontaneous exchanges and, channeling these in the interest of all, to become a self-aware community" (Sabel, 2012, p. 38). Publics establish "a communicatively mediated, collective self-government as a principle of social order" (Adloff, 2016, 82) that depends on the values of democracy and their interpretations in a community. This view rejects the conventional notion that solely formal political institutions constitute the locus of democratic participation. Dewey's notion of democracy is a normative one, ingrained "by faith in the capacity of human beings for intelligent judgment and action" (Dewey, 2021 [1939], p. 63) within democratically mediated forms of collaboration. To come close to this, ideal democracy "demands liberation of the potentialities" (Dewey, 1927, p. 147) of as many community members as possible. To maintain that "all members are able to participate as freely as possible" (Honneth, 2018, p. 61), free communication and participation in deliberative discourses have to be guaranteed for everyone. For Dewey, it is only then that a large variety of ideas and concerns can be publicly discussed and creative solutions for common problems might jointly be discovered—ultimately to build desirable future social conditions in an act of joint effort (Dewey, 2021 [1939], p. 65). In brief, a democratic community comprises a form of social association in which members share a specific value system and solve problems collectively by self-government through deliberative discourse and free participation. This is necessarily an ongoing social process with an uncertain outcome.

Central to Dewey's understanding of democracy is the awareness of a fundamental uncertainty of the modern world that can only be overcome by shared experience which generates knowledge. Fundamental uncertainty provokes human "creativity and sociability" (Sabel, 2012, p. 44) and demands to gain experiences and share them with each other, on the basis of "free interaction of individual human beings with surrounding conditions, especially the human surroundings, which develops and satisfies need and desire by increasing knowledge of things as they are" (Dewey, 2021 [1939], p. 65). The term 'knowledge' in this sense is not narrowly restricted to scientific expertise, but it refers more broadly to the insight mentioned above that "mutual learning and joint problem-solving give rise to a democratic community" (Sabel, 2012, p. 43). In fact, Dewey not only emphasizes that "knowledge is the function of association and communication" (Dewey, 1927, p. 158), he also claims that generating novel "knowledge and insight" is a "prime condition" (Dewey, 1927, p. 166) for a democratic public. It is the strive for knowledge that enables publics to find, create, and test solutions for shared problems. In order to generate knowledge in a systematic manner, science shows, experiments have to be conducted.

Dewey takes this notion of scientific experiments to the idea of democracy itself, which can be conceived as "an always-incomplete and cooperative process of experimental problem-solving" (Fladvad, 2021, p. 17). It is precisely this kind of democratic experimentalism that connects the democratic values of community life and the deliberative public with the scientific method of experimentation. For Dewey, "applying the idea of experimentation to democratic society is about deepening the ability of citizens to engage in open inquiry, both individually and collectively" (Ansell, 2012, p. 168). Democratic experimentalism refers to (often local) democratic communities with specific values that deal with public problems in a systematic and empirical way. In this sense, an experiment is an empirical method to solve problems and an epistemic practice. Both the identified problem as well as the problem-solving process with its particular social conditions are subject to experience of the community members. This social process of inquiry is dynamic, provisional, and self-correcting, meaning that "techniques and assumptions of any inquiry must remain open to correction, modification, or deletion" (Hildebrand, 2011, p. 592–593). For Dewey, the concept of inquiry is not limited to scientific experimentation, but it is deeply social and already grounded in the idea of a democratic public itself. Inquiry in this sense always "involves collaboration and communication among people navigating a problematic situation together" (Hildebrand, 2011, p. 593). The purpose of inquiry is by no means to find absolute 'truth', but it constitutes "the experimental search for the most comprehensive answer to a socially problematic situation" (Honneth, 2018, p. 60; cf. Adloff, 2016, p. 81f). Democracy, then, is a never-ending collective search for a good life for as many people as possible, without the false promises of everlasting satisfaction or one-best-way solutions.

4. Community-supported agriculture as food democratic experimentalism

Before turning to our analysis of democracy in CSA initiatives and networks (see Section 5), we describe the main principles of CSA and its emergence in Germany. Since the 1990s, CSA has been increasingly become subject of academic debates on sustainable agriculture or "civic agriculture" (Lyson, 2012) in various disciplines (cf. Farnsworth et al., 1996; Cooley and Lass, 1998). CSA aims to create localized food systems that are opposed to industrial agricultural production and market-based distribution. In our view, they comprise a specific manifestation of civil society's inquiry for alternative and sustainable agricultural forms. One of the core features of CSA is that production and distribution are partially decoupled from the market. Producers and consumers form a community that jointly shares the costs and risks of agricultural production. Produce in the CSA circuit is usually distributed on a weekly basis. Typically, it comprises vegetables and fruit, yet meat, dairy, and processed food are also distributed in many CSA initiatives. The consumers as a group bear the production costs for a certain period (usually 1 year) and receive a share of the produce in return, without any market price attached to it. The produce is thus not treated as a commodity that is bought by consumers. In a sense, CSA is a means to decommodify agri-food production (Blättel-Mink et al., 2017). The German CSA network accordingly claims that "The food loses its price—and gains value" (SoLawi-Netzwerk, 2021, p. 4)[3]. Consumers express solidarity with producers by taking over production risks; members commit to paying their contribution independent from the actual amount and quality of produce. Farmers income is at least partially decoupled from production outcomes.

Some CSA initiatives even institutionalize solidarity among consumers, by introducing the so-called "bidding circle" (*Bieterunde*) as a funding mechanism, allowing for different monetary contributions for equal shares according to the individuals' willingness to pay and ability to afford. In a bidding circle, members indicate what monetary contribution they are willing to make to receive their share regularly; bids of the whole group are accumulated, and if these are insufficient to cover costs, higher bids are given in a subsequent round – until accumulated bids do finally cover expected expenses for the production period. By letting the members decide what amount they will contribute, the bidding circle constitutes a tool aiming to ensure a needs-oriented, solidary financing mechanism on a voluntary basis (cf. Wellner and Theuvsen, 2017, p. 238). Although monetary payments are involved, participants do not necessarily regard this as a "price" to be paid, but as a solidarity gift that will be reciprocated when they receive a share of the harvest. Both amount and quality of this counter-gift are not determined in advance[4]. The vision is that wealthier members might offer higher contributions in order to enable others to spend less. In most cases, bids and outcomes of the bidding circle are held anonymously. For many members, this instrument is an emblematic element of CSA, highlighting a categoric difference between food sharing within a CSA and trading food on the market. However, not all members share this perception. Others rather perceive their bids as a price and the produce they receive as a good that they purchase on the food market. There is variation among members, and there is variation between different CSA initiatives. Some envision radical alternatives (Rommel et al., 2019); others might best be described as "service oriented" (Gruber, 2020) because they focus on the high quality of products and their distribution over offering alternatives to markets. Accordingly, some use the tool of a bidding circle; others simply ask for equal, standardized contributions. The latter finance agricultural production in solidarity with the producers, without necessarily having solidarity mechanisms within the group of consumers. One reason seems to be that bidding circles are rather demanding in terms of organizational capacities, and they also rely on trust among members. In rare cases, some members even claim they fear others might cheat so they wish to have more transparent price systems (field note, PO9).

Another characteristic of CSA schemes is that engaged/dedicated members actively participate in the agricultural production and/or the administration. They become prosumers (Blättel-Mink et al., 2017, p. 418) by working in the field, distributing products, or helping with accounting. Here, too, individual CSA schemes differ from one another. Some feature regular participatory days in which all members are expected to participate, whereas in others, only a few members are actively involved on an even more voluntary basis. A further characteristic that we aim to highlight is the commitment to regional and sustainable agriculture which is expressed in pursuing organic farming (notwithstanding the fact that while some CSA initiatives are certified as organic farms, others are not). Some members even explicitly mention that relations to animals and to nature are or should be based on the principle of solidarity (field note, PO12). Nevertheless, the aim to contribute to a sustainable transition of the whole agricultural sector might be understood as a signal for a commitment to the common good, as opposed solely to the well-being of the CSA members (cf. Blome-Drees et al., 2021).

CSA has been established in Germany since the late 1990s, after this specific form of small-scale agriculture had been experimented with in the USA (Paul, 2019). Its idea of small-scale agriculture based on local and personal cooperation among farmers and consumers is still older and emerged in Japan in the 1960s (Schnell, 2007, p. 552). In Germany, CSA first started in the late 1980s with the Buschberghof, a farm 40 kilometers west of Hamburg. The movement has been growing since. The creation of a nationwide network ("*Netzwerk Solidarische Landwirtschaft")* in 2011 represented a key moment in the expansion of CSA as a social movement in Germany. The main rationale for establishing the network was for existing farmers and interested actors to join forces to elevate CSA's alternative economic principles and its normative foundations (Int10; see also von Elsen and Kraiß, 2012, p. 62f.). Since the early 2010s, CSA has flourished and by now the network Solidarische Landwirtschaft e.V. lists more than 400 local CSA initiatives in Germany.[5] The network "conceives of itself as a movement, grassroots democratic organization and federation alike" (SoLawi-Netzwerk, 2021, p. 10, our translation).

3 If not stated otherwise, German quotes from interviews and literature are translated by the authors.

4 This is one reason why crop sharing in CSA is not to be conflated with market exchange. According to Adloff (2016, p. 25), the gift differs categorically from equivalent exchange, inter alia because it is uncertain, if, how, and when it is reciprocated. On money usage in gift relations, see Degens (2016, 2018); on a gift perspective on economic practices, see Exner (2021).

5 Current status from October 2022; https://www.solidarische-landwirtschaft.org/solawis-finden/auflistung/solawis.

In our view, it is an expression of the principle of democratic experimentalism: whereas individual CSA initiatives aim to find solutions to offer non-market sustainable food and to support small-scale farming, the network is part of the ongoing inquiry on a meso-level. It allows to share experience, to identify potential solutions to problems that are beyond the scope of single initiatives, as several of our interviewees highlight explicitly (Int 3, Int4, Int10).

5. Democracy within and beyond the field of CSA in Germany

In the following sections, we discuss the role of democracy and its varying forms in the field of CSA in Germany. The field most notably comprises a variety of local initiatives on the primary level and the nation-wide network on the secondary level. Hence, our focus is on democratic processes and different modes of institutionalization both at the primary and secondary levels. We intend to show that primary CSA initiatives on the ground constitute diverse food democratic experiments in themselves (Section 5.1)—yet, crucially, we show how the idea of democratic experimentalism comes to the fore also in meso-level collaboration among primary initiatives (Section 5.2). It can also be found in cooperation with other actors engaged in alternative food movements, while it is limited regarding its scope (Section 5.3).

5.1. Varieties of democracy in primary CSA initiatives

In the following section, we show how CSA can be characterized as a very heterogeneous field of food democratic experimentalism. The different initiatives share the idea of CSA as an alternative, sustainable and community-based economy, yet they show some remarkable differences. In fact, literature on CSA grasps this diversity by offering different approaches to classify distinct types of CSA (e.g., Boddenberg et al., 2017, p. 263–266; Gruber, 2020, p. 109–121; Paech et al., 2020, p. 52). For our purpose, it is sufficient to stress that relations between consumers and producers are institutionalized differently. In this line, three types of CSA organizations are discussed in practical guidebooks from within the field (Heintz, 2018). This typology has been quite influential, and, for example, the working group[6] of CSA cooperatives refer to it. The three types relate to different visions and structures as to how food democracy is to be realized in CSA.

The first type is labeled producer-led CSA (cf. Paech et al., 2020, p. 52) and can be regarded as a way to strengthen a pre-existing small-scale farm that offers organic products by securing income, and for consumers to obtain local organic produce. Broadly speaking, the fading of small-scale farms is recognized as a problem of common interest out of which a public emerges and takes the form of a mobilized CSA community. The producers might also generate other income beyond the CSA, typically by selling goods on the market. Agricultural work is done exclusively by the producers, but the consumers individually guarantee to take the harvest for one year. Consumers form a group somewhat loosely, without any legal relationship among them (cf. Heintz, 2018, p. 27). Decisions are taken by the farmers, if in voluntary collaboration with consumers. This type is typically established when farmers search for an alternative way of running their farms and consider CSA as a suitable path to guarantee their future by building ties to the local community of consumers that join the CSA. Typically, the farm, the farmland, and other operating resources remain the property of the farmers.

The second type of CSA organizations refers to initiatives that are led by critical consumers who identify a problem in food consumption and production. They aim to do something about the unsustainable food industries and long supply chains by searching for opportunities to be jointly engaged in horticulture and farming for their own consumption. This second type is described as a consumer-led (cf. Paech et al., 2020, p. 52) collaborative form of CSA. Consumers create a CSA organization that collaborates with one or more local farms. The consumer-led CSA organization manages the processes of distributing the harvest and member administration; it represents the interests of the consumers. Typically, the community is formally structured in a democratic way and constitutes a public to find ways to improve the food system because it is regarded as a matter of common interest.

The third type of CSA organization emerged mainly in 2017 and is often labeled as co-entrepreneurship CSA or self-organized CSA (cf. Gruber, 2020, p. 112). In this case, a community of consumers establishes a CSA organization, usually an association or a co-operative, that combines a production facility and a membership organization as a whole. The means of production are in the collective ownership of the members. Given that such CSAs do not emerge from or in collaboration with already existing farms, a first task is typically to gain access to agricultural land and to employ skilled gardeners. The issue of democratic participation (cf. Blome-Drees et al., 2021) is particularly emphasized by its proponents (Int4, Int8, and PO16). They tend to regard the legal form of co-operatives as the best possible way to guarantee democratic procedures in CSA, because it offers a formal framework that guarantees each member has one vote. At the same time, legal requirements, e.g., to elect a board that has decision-making power, are regarded as a potential obstacle to meaningful democratic participation (Int10). So, while formal democratic structures are inherent to this type of CSA, there are some particular issues regarding the way democracy is realized, both in terms of structure, and in terms of actual practices.

In the following, we reflect on selected perplexities of democratic governance. While most of these issues apply to all types of CSA, they become particularly apparent, once the genuine democratic ambition that is aspired in CSA forms of type 3 is considered. One issue refers to the problem of actual participation, since formal democratic structures are not sufficient to actually enable active participation by members (Rothschild and Whitt, 1986; Hettlage, 1990; Rothschild, 2016). Accordingly, one of our interviewees points out that in general this commitment to the principle of democracy has to be actively promoted (Int4). They highlight the importance of democratic participation for CSA, yet at the same time acknowledge there are various ways to translate a formal democratic structure to actual practice. It may even become obscure what democracy might mean precisely.

6 See https://solawi-genossenschaften.net/solidarische-landwirtschaft/#Typen.

> *It always depends on the community how they move within this legal construct, how they interpret it. Basically, I think this democratic approach is extremely important yet at the same time I ask myself what does it actually mean?* (Int4)

The interview partner emphasizes both the importance of the community and the experimental character of democratic organization. The interviewee reflects on a lack of participation in representative democratic systems and how important it is for CSA organizations to "give their members a *real* voice." To them, a CSA co-operative has to embrace democratic decision-making processes, and "*to have … confidence in such democratic decisions and also put decisions to the vote, especially important decisions."* (Int4)

Another issue is what group actually constitutes the *demos* in democracy and who is able to meaningfully participate in decision-making processes. Therefore, any assessment of democratic decision-making processes inevitably raises the issue of to what extent the various groups of stakeholders are represented. Here, we like to highlight an issue of such CSA schemes in which consumers and producers – having conflicting interests qua positions – are both members of the organization. Here, it is crucial to reflect on "the way and the level in which stakeholders – members and non-members – are involved" (Borzaga and Depedri, 2015, p. 111). We shed light on two relevant groups of stakeholders: consumer-members and employed worker-members. Arguably, consumer-members are the primary group of stakeholders in a CSA cooperative, and they might either more passively just receive the CSA's products or more actively be engaged in different tasks in the organization. Yet as these members, even if they actively participate, lack agricultural and horticultural skills and training, these CSA co-operatives also hire qualified workers. These constitute another important group of stakeholders, whose interests regularly diverge from that of the consumers.

One point of contention is the appropriate salary for employees. This is debated regularly within and between different CSA initiatives, and most members agree that the salaries are considerably low. However, they are partly not willing to pay more for CSA memberships and produce. Therefore, a conflict can be identified between the CSA's normative ideals of showing solidarity with producers and the interests of (some) members not to pay exorbitantly more for the agrifood they receive than in organic supermarkets. To mitigate such conflicts, some CSA organizations establish specific governance structures to increase employees' influence on decisions, especially when they are most affected by the consequences. To guarantee their employees' influence, some co-operatives include specific rights for their employees in the formal statutes. One interviewee explains:

> *It was a little bit about the imbalance of influence between employees and members and what we have formally regulated in the Articles of Association, so to speak, that only employees can become members of the Board of Management in order to ensure that the steering wheel for operational decisions, which is 90, 95, 99 percent of all decisions, really lies with those who really have to bear the consequences of the decision.* (Int6)

The basic conviction is that decisions should be made by those who are most affected by them. In this case, employees are rather in a particularly strong position within the governance structure because it is guaranteed that they are mostly able to decide for themselves how they perform their work. They are even able to approve their salaries. In Dewey's sense, this can be seen as a space of experience within the organization, where not only decisions are made, but also the actual effects of actions can be experienced for further deliberation. In this case, the cooperative not only has statutes that pay special attention to the rights of employees, but also uses a detailed manual for many of the most important aspects of running a CSA cooperative. This manual itself encourages employees to experiment with different ways to improve working processes. They comprise some elements of sociocratic governance (Endenburg, 1998), promoting the principle of consent (Int4, Int10). According to this principle, a participative decision needs not to be taken consensually, yet it can only be rejected through constructive counterproposals. This procedure is reflected upon in regular meetings. It therefore represents a deliberative form of decision-making that enables the experimental testing of new ways of acting as well as regular reflections and discussions of the experiences that have been made (Int4, Int8, Int10; cf. WirGarten e.V., 2021). While sociocratic forms are practiced in a few CSA schemes, other CSA organizations use, for example, consensus-based grassroots democratic procedures. Yet in most cases, rules on decision making are rather informal, and, for example, relevant decisions on farming are made by the employees. One interviewee explains that the small team of four gardeners agreed to "try to reach consensus decisions" (Int5), albeit without establishing a formal mode of procedures.

Our interview partners share the conviction that, in order to include as many stakeholders as possible, transparency on organizational issues is most important, as is to make information available to the whole community. Therefore, it seems possible to create a feeling of a deliberate public that identifies and discusses problems of common interest:

> *As far as the active participation of the members is concerned, I can say that we make the core element of the business, which we develop in advance for the next financial year, available transparently down to the last decimal point for all those who want to have a look. And we hand over an easy-to-understand, slimmed-down version to every member directly via a link in advance of a meeting* […] *So not only that they can have a look, but there can also be questions, criticisms or anything else that members wish to be reported.* (Int5)

The information that is shared with the whole community is prepared and disseminated in a way that is universally understandable. This helps to identify common problems and allows deliberation for everyone involved. Limitations here might lie in the number of members, because it may become difficult to let everyone have a say in larger organizations with several hundreds of members. Problems often arise when appropriate structures have never been established to channel and moderate democratic discourse. Responsibilities may not be clear and decisions may be blocked. Some interviewees (Int4, Int6, and Int10) raise another point, by claiming that the efficiency of decisions is no longer given if too many people are to have a say. It might even become "paralyzing"

(Int10) to allow everyone to raise concerns when they are not willing to collaborate on solutions. If too many different opinions and expectations come together, the aim to generate consensus can distract from pressing problems and inhibit the organizations in their processes. Accordingly, there is often debate about the optimal member size for a CSA organization that is both economically viable and allows for the active participation of the community.

Overall, while CSA initiatives share many basic principles, they differ in the way they envision democracy and to what quality and quantity of participation they evoke. Some rely on more informal rules, others on legal requirements (like the Co-operative Act that makes representative democracy obligatory). Any particular form of institutional design influences which group of stakeholders has what degree of say in the organization. The modus of experimentation can be found within single CSAs but also in the comparison of different CSA. Moreover, a thorough analysis of the secondary level does not only account for varieties, but for collaboration. We now turn to this idea of democratic experimentalism on the meso level of the field of CSA.

5.2. Meso-level cooperation and collaborative learning

As mentioned above, the network of CSAs is a central organization on the national level. Since its creation in 2011, it has contributed significantly to the growth and coordination of the entire democratic food movement. The network in fact has been an important prerequisite for the emergence of a broader CSA community at the national level. It constitutes an extended public form for jointly identifying common problems and facilitates collective problem-solving processes that cannot be dealt with by single communities or organizations. The network as a grassroots democratic organization is in the legal form of a non-profit association. According to its self-description, "[i]ts goals are to preserve and promote solidary, sustainable and small-scale agriculture, in which producers and consumers work together in a collaborative manner and regard agriculture as a common social responsibility." (SoLawi-Netzwerk, 2021, p. 10; our translation)

Dewey's understanding of democratic experimentalism highlights "an open model of inquiry" (Ansell, 2012, p. 168), which reaches beyond scientific insights and does not depend on individual experience solely. Instead, its "obvious requirement is freedom of social inquiry and of distribution of its conclusions" (Dewey, 1927, p. 16) which, for Dewey, ultimately generates new knowledge on social and political organization. In this regard, an important feature of the network is to function as "a platform that provides information and competencies" (SoLawi-Netzwerk, 2021, p. 10; our translation). Additionally, the network offers a wide range of specific consulting, guidance and information materials to support primary CSA organizations and local communities. One valuable service offered by the network is the provision of a website[7] which offers a central source of information for the CSA movement in Germany. On this platform, events are announced, the latest developments of the movement are shared and general information on individual CSA organizations or regional collaboration as well as on working groups (WGs) are published. Altogether, it is the main platform to bring people involved or interested in CSA together and for coordination of collective action.

In what follows we focus on another essential service provided by the network, namely the organization and conduction of semiannual conferences[8] for members and those who are interested in CSA. These 3-day meetings are held on weekends every spring and autumn. During the Coronavirus pandemic, when it was not possible to hold the conferences in presence, they took place online. These online events show a high level of organization, preparation, and inclusiveness. Typically, they last a weekend, starting on Friday afternoon with a pre-conference beginner's workshop. The latter is aimed at an external public, to attract new people and provide insights into CSA principles, aims, and values. In the evening, the meeting starts, usually with rounds of introductions in small groups to get to know each other better, and with a talk in which, for example, new research results on CSA are presented and discussed. In this way, a deepened sense of community is created that supports free discourse and opportunities to share experiences. On the second and third days, several workshops and so-called "open spaces" take place. In these, a wide variety of relevant topics are debated, such as management methods, communication methods to build up a community, or how to run a crowdfunding campaign. Also, more controversial issues are discussed, such as the constant underlying dispute between more growth-oriented urban CSAs, which are often suspected of being too commercial, and small-scale rural CSAs (see Degens and Lapschieß, 2023). The workshops are participatory by nature and all attendees are invited to share and discuss their experiences on the given topic. Later, impressions from the different workshops are reflected upon in a plenary session. *Open spaces* are a method to organize conferences more interactively; they can be established spontaneously and they strongly illustrate the deliberative democratic spirit of the event. Typically, one participant shares a concern or a project to be launched and proposes to set up an open space with others who might share some experience or are generally interested in joining a discussion group. Everyone is welcome to participate in any *open space* to take part in the deliberative process of identifying and articulating common problems in order to communally search for solutions. Sometimes, long-lasting working groups emerge from open spaces. In Deweyan terms, these conferences illustrate on a small scale how common problems are identified and particular publics to address these problems collaboratively are created. In this sense, the open spaces function as laboratories of democratic experimentalism. They form temporary communities that establish particular publics around deliberative problem-solving processes through sharing and discussing experiences from a practical perspective. In fact, many participants enjoy this part of the conferences where they share their own experiences and learn about those of others. At the conferences, further, ongoing exchange among groups is encouraged, in order to help identify and/or solve common problems or improve regional cooperation. This illustrates how, according to Sabel, problem-solving processes go "hand in hand with the search for new potential collaborators" (2012, p. 43). Overall, these conferences conducted by

7 See www.solidarische-landwirtschaft.org.

8 https://www.solidarische-landwirtschaft.org/aktuelles/termine/netzwerktreffen. Our observations were made on online meetings during the corona pandemic in 2021/22.

the network illustrate how CSA activists aim to embody and establish a democratic way of life that is sensitive for the concerns of those affected and that encourages active participation. Voluntary and thoughtful moderators constantly encourage everyone to participate, while accounting for different levels of technical capacities to engage in an online discussion. They also care to balance speaking time, trying to prevent individual participants from takin up too much space while seeking to lecture others.

Within the network, CSA members jointly identified and articulated a shared vision and fundamental principles of CSA in Germany. These principles were shaped in a participatory process that lasted several months and in which members of the network as well as from several working groups were free to be involved to share, discuss and evaluate ideas about the main characteristics of CSA[9]. The declaration of these principles shall create a specific CSA identity within the wide variety of food movements in Germany and beyond. The list of principles includes many aspects that are inherent to democratic experiments and conceives of CSA as "community-based, diverse, needs-based, ecological, and regional agriculture in which people take direct responsibility for their local basic needs"[10]. The successful operation and management of CSA organizations depends on "[…] personal cooperation based on mutual trust. This creates mutual appreciation, respect, and various opportunities for consumers to participate. Based on the main principles, CSA farms organize themselves independently, according to the interests and needs of their participants. This results in lively and dynamic learning processes that help to shape a sustainable and future-oriented social togetherness" (see footnote 10). This quote highlights the insight that CSA relies heavily on communities that are actively experimenting, both at the local level in local initiatives and even more broadly as a highly collaborative movement at the meso level. It seeks to achieve not only sustainable agriculture and free spaces for self-organized small-scale economies, but also novel democratic ways of living in considerate interaction with nature. In Deweyan terms, the vision and fundamental principles can be understood as the subject-related values of CSA, which supplement the basic democratic values that embrace communities and deliberative publics. Mutual recognition and measures to maintain inclusiveness are fundamental for such a kind of collaboration. The notion of recognition and meaningful voice is weighed over democratic voting principles that entail the problematic potential to establish a "tyranny of the majority" (Int10; our translation). Some practitioners feel the very kind of social relations and practices to maintain them entail an element of transformation in themselves: CSA, then, is not necessarily solely about agriculture, but it enables to practice ways of interacting that prefigure a better future (Int4, Int10). Such prefiguration is ascribed to the principle of solidarity in economic endeavors, and to establishing meaningful social ties among members, as well as to the ways how conflicts and clashes of interests are mediated.

Regarding the vision of democracy and society, the CSA network strictly distinguishes itself from exclusionary worldviews such as far-right political ideologies. This relates to the question of who constitutes the *demos* in democratic governance. Germany has been experiencing a re-invigoration of rightwing thought, and rightwing movements constitute a growing phenomenon. There are, for example, settlement projects that are driven by blood and soil ideology (Pates and Leser, 2021; Röpke and Speit, 2021); also, the right-wing esoteric sect and deeply antidemocratic Anastasia movement has been quite successful in gaining influence (Schenderlein, 2020). Antidemocratic and *völkische* views were closely linked to the environmental movement from its very beginning in Germany (Abrahams, 2021, p. 91f). To counter tendencies to establish sorts of localized Germanic blood-and-soil agricultural communities, the CSA movement vehemently distances itself from such initiatives and aims to preserve its pluralistic and democratic foundations. The network excludes individuals who adhere to such political ideologies or are members of organizations that represent them. The statutes of the network here are very strict: "The association does not tolerate any racist, xenophobic or other discriminatory or inhuman endeavors." (SoLawi-Netzwerk, 2019, p. 2; our translation) This reproduces a fundamental belief of what Dewey called the "faith in the potentialities of human nature as that nature is exhibited in every human being irrespective of race, color, sex, birth and family, of material or cultural wealth." (Dewey, 2021 [1939], p. 62) As a symbolic act, the CSA movement and the network express their rejection by showing a banner against right-wing positions on its website. In 2016 the working group (WG) "Right Tendencies" (see footnote 10) was established and has since become a fix part of the network. This WG collects information and educates about right-wing initiatives in alternative food movements. It also aims to encourage CSA organizations to take a political stance against far-right and antidemocratic positions. According to the WG, such developments are still too unknown in the CSA movement, despite the growing prevalence of right-wing initiatives and their appropriation attempts in general. Hence, the demand for a clear demarcation was recently reiterated at the network's Spring-Conference in 2022. In particular, the WG "Right Tendencies" aims at establishing a structured participatory process in the upcoming one and a half years to define elaborated demarcation criteria. In a sense, this WG aims to act as a self-monitoring regulator for the CSA movement to keep democratic values high and cultivate inclusive practices.

The WG against right-wing tendencies is just one of several examples of WGs that are established on the regional level or with respect to specific topics. Another WG, for example, emerged in 2022 out of a shared conviction of its members that the relation between CSA and a broader societal transformation needs to be explored. Its long-term aim is to increase CSA's impact on transforming large-scale structures (PO7, PO11, and PO14). The initial step, however, is to use the WG as a space to jointly reflect on the meaning of transformation and on how CSA relates to it. All WGs resemble independent and self-organized entities and at the same time are small ramifications of the network. These WGs help to create particular publics around specific problems, e.g., legal hindrances or the compatibility of different legal forms with CSA. This WG modus ultimately means negotiating democratic practice. While many WGs are less formalized, the WG of the CSA cooperatives that was founded in 2019 serves as an illustrative case for more formalized and well-organized groups. It aims to evoke permanent collaboration among those CSAs that chose the specific legal form according to the German co-operative Act.

9 This participative process was established to avoid any kind of top-down pressure. Acknowledging the diversity of CSA forms, norms are not enforced from the top, but jointly agreed upon bottom-up, thus avoiding quasi-coercive isomorphistic pressure from meta-level organizations (cf. Young, 2021).

10 https://www.solidarische-landwirtschaft.org/das-konzept/vision-und-grundprinzipien (accessed October 14, 2022; our translation).

Meanwhile, it comprises many of the 20 existing CSA co-operatives. On its own website the WG describes its mission:

> "The Cooperatives WG thrives above all on exchanges, the sharing of experience and information, and a cooperative, collegial attitude. It exploits potential synergies and builds sustainable partnerships with cooperative auditing associations and other system service providers. The Cooperatives WG develops solutions to issues that may arise in day-to-day operations or in collaboration with authorities and agencies"[11].

As the quote illustrates, the WG creates a community and establishes a particular public that especially addresses the problems of CSA cooperatives. In practice, this is attempted through monthly online meetings and a dedicated digital communication platform. Even researchers who collaborate with the WG are invited to participate. The meetings offer a forum to discuss recent issues or to get to know other co-operatives and people involved. As one member explains, the WG also seeks to strengthen the compatibility of the legal form of the co-operative which is by definition democratic with the CSA principles (PO16). This is an example of experimentalism in terms of diversifying the existing organizational models in CSA by practicing and experimenting with them.

5.3. Coalitions and boundaries in food democratic experimentalism

Having illustrated how collaboration within the field of CSA is an expression of meso-level food democratic experimentalism, we now turn to what we label the external dimension of CSA food democracy. We highlight collaborative efforts with other actors and initiatives beyond the narrower field of CSA. We also aim to reflect on the limitations of CSA as a tool for striving for food democracy by pointing out some of its boundaries. The prosperity of CSA as a movement as well as of single CSA initiatives does not only depend on the respective communities themselves, but also on the wider framework that enables or restricts the development of CSA initiatives and structures. In the previous Section 5.2, we discussed meso-level collaboration within the CSA network, showing how mutual support and cooperation allow for solving problems beyond the reach of individual CSA. However, there are many issues that cannot be tackled within the network or the broader field of CSA. This is recognized by many actors in the field who make efforts to collaborate with like-minded initiatives and other potential allies for making the food system more democratic and more sustainable (cf. Bonfert, 2022). This especially holds for individuals who conceive CSA as a transformative movement that is not necessarily bound to a local niche level in the future.

One arena of collaboration refers to building broader political networks (cf. Bonfert, 2022; Huber and Lorenzini, 2022). To link a CSA initiative with other local food movements, CSA members seek to cooperate with strategic network actors. For example, local food councils serve as an interface between various stakeholders, including municipal politics, civil society and businesses. They use cross-sector approaches to increase communities' control over the design of their food systems. The long-term goal is to raise awareness in municipalities for the need to actively foster localized sustainable agricultural production and strengthen non-market forms of distribution. Some CSA protagonists are also actively engaged in other movements, such as the CSX movement (Rommel and Knorr, 2021), the "regional movement" (Regionalbewegung), or, on an international level, the CSA network URGENCI. Some organic farming associations in Germany and beyond are also seen as valuable partners for CSA. In the following, we want to illustrate the specific modus of collaborative democratic experimentalism by focusing on the case of collaboration in order to improve access to land.

One major structural issue is that agricultural land is scarce. A large share is held by corporations either for production or speculative purposes. Land prices and rents have been rising tremendously over the last decades. To some CSA initiatives, this constitutes a major hurdle. While producer-led CSAs tend to be able to farm parcels of land that comprise the private property of the farmers, it is typical for more urban and consumer-led CSAs to struggle to find access to affordable land. All in all, CSA initiatives depend on land in a particular region; they are not able to simply move to regions where land is accessible (although some syndicalist groups do show some degree of flexibility as to where to start their holistic endeavor [field note, PO12]).

For CSA, one opportunity to establish access to land is to collaborate with specialized organizations that facilitate investments in sustainable small-scale farming. One example is the European Network "Access to Land," which aims to "strengthen practical knowledge – on both problems and solutions – in the field of access to land for agroecological farmers"[12] This and similar organizations aim to withdraw land from the market and speculation, by purchasing land and renting it to specific farmers only (Kumnig and Rosol, 2021). This way, the land shall be secured and preserved for regional and socially-embedded farming. In Germany, these initiatives formed a network to secure land ("Netzwerk Flächensicherung"), and they all envision a regionalized, organic, and farmer-driven agriculture. Some specifically support community-supported agricultural initiatives. The *Kulturland eG*, for example, has been creatively establishing set-ups that allow supporters to give low-interest loans or make investments in order to purchase land that in turn is rented (on a low-cost basis) to a particular CSA initiative. This way, *Kulturland eG* specifically supports CSA initiatives by providing access to farmland outside of market conditions. Members hold shares and also provide interest-free loans to the organization. The vision is a *commons 2.0*, and the organization seeks to enable cooperative ownership of land to make it available for organic farming. As one interviewee puts it, "people should feel co-responsible for the land, for the fertility of the land, for the versatility of cultivation, and they should also bear agriculture together, in a community-supported way" (Int2). They argue, implicitly resembling Polanyi's (2001 [1944]) notion of fictitious commodities: "In the case of land, private property makes no sense at all. It must not take the character of a commodity." (Int2) *Kulturland eG* (and similar initiatives, with *BioBoden eG* being the largest) aims to commonify land that was previously bought and sold on the market.

We argue that CSA collaboration with such supporting actors is an expression of the very kind of democratic experimentalism

11 https://solawi-genossenschaften.net/solidarische-landwirtschaft/#Genos [accessed October 14, 2022; our translation].

12 https://www.accesstoland.eu/-What-we-do-.

that puts CSA into practice in the first place. Commodification and scarcity of land in various locations are experienced as major problems by activists who, as a response, explore democratic organizational forms as potential solutions. In a sense, these initiatives constitute a public that focuses on problems many CSAs struggle with. They do not solely offer a practical and cost-efficient solution in the form of affordable access to land, but they also share the specific value system of CSA and a vision for a regionalized and sustainable system of agriculture and food supply. In a way, they focus on the difficult relation between democracy and property. If all those who are affected by actions and decisions shall have a say, then the current institution of private property raises serious concerns: Landowners are entitled to make decisions regarding their property, and they do not have to take the interests of the local residents and farmers into account (except for other legal and administrative requirements that have to be met). Then, small-scale farmers and local communities depend on the goodwill of landowners to let them cultivate their land. This is seen as a major threat to democracy and the common good (Int8). *Kulturland eG* and similar initiatives aim to set up a system that restricts the use of farmland for regionalized organic farming only and guarantees long-term access. Together with CSA initiatives and supporters, they offer experiments in economic food democracy and generate experience that might be used in the long run to commonify agricultural land on a larger scale. They try to use existing legal instruments creatively to challenge the kind of dominant land property regimes that hamper transition to small-scale, sustainable agriculture (cf. Calo et al., 2021).

These cases show how some CSA actors try to establish coalitions beyond the narrow field of CSA and also beyond food movements. Strategically, it seems that only a coalition of different actors, comprising CSA, associated movements, municipal entities, and others (if at all) might be capable of generating transformative effects beyond small niches (cf. Bonfert, 2022; Huber and Lorenzini, 2022). In our view, this strategy resembles Dewey's emphasis on collaborative learning. It is not about a pre-existing group of people that are entitled to make democratic political decisions, but about the process of constituting publics, identifying shared problems and establishing joint solutions.

So far, we focused on the extension of democracy *via* CSA. Yet there are also severe limitations and boundaries to CSA as a democratic endeavor. The *demos* in CSA food democracy can be defined quite exclusively, because there are certain boundaries that function as markers to distinguish insiders from outsiders. Some of these boundaries are deliberatively set by the CSA movement itself; others are rather non-intended consequences of the particular preconditions for becoming a member of a CSA initiative. Both sets of boundaries shall be explored and illustrated in the following. We have already shown that CSA members organize in order to exclude those actors from the field who pose themselves against basic universal democratic norms and values (Section 5.1). This reveals the fields' common understanding of shared goals toward a sustainable and democratic food system. The commitment to specific values demarcates a boundary between those who may belong to the system and those who shall not or do not wish to be part of it. This is an example of intended boundaries; however, there are also non-intended boundaries. One issue of CSA's democratic potential is raised by the question of who actually participates in CSA. It is well-known that membership in CSA is driven by classic socio-economic factors, with the level of income influencing spending opportunities and thus membership (cf. Forbes and Harmon, 2008; Lorenzini, 2019; Blome-Drees et al., 2021; Bonfert, 2022). CSA crop sharing tends to be expensive, if compared with food from supermarkets and discounters. Although some members seem to deny that conventional retail stores do offer cheaper food (arguing inter alia that a fair comparison would control for quality and unequal compensation for producers [field note, PO12]), most informants and participants are aware of the fact that crop sharing in CSA is not affordable for everyone. That "economic, social, and cultural capital set important barriers to participation" (Lorenzini, 2019, p. 135) is, we find, substantially reflected by parts of the movement. In fact, a conflict of objectives has been regularly mentioned in WGs and workshops: on the one hand, CSA shall be as inclusive as possible, yet members need to have a certain ability to pay, because costs must be covered and the principle of solidarity with producers (amounting to higher relative costs) shall not be disregarded. One representative of the network reflects that CSA is inclusive and membership heterogeneous in the sense that "all age groups are part of it," yet at the same time they acknowledge that many members come from "an educated middle-class background" and had already been interested in the issue of sustainable food before they joined. "So, we are partly divers, but partly not mixed at all," the interviewee concludes (Int10). All in all beyond awareness and reflection of this sort of exclusivity, there has not been a systematic approach to deal with socio-economic boundaries. The mechanism of the bidding circle (see Section 4) constitutes an exemption as it allows (to a limited extent) for pooling individual contributions and therefore for diversifying membership. Yet its impact on diversity remains limited. Overall, CSA does not offer solutions to the broader structural problems of social inequality. If food democracy means equity and democratic participation for all, CSA offers only limited potential, given the "material and symbolic inequalities" (Bonvin et al., 2018, p. 966) that influence membership status.

6. Conclusion

The broader aim of this paper is to explore the meaning of CSA as a form of democratic experimentalism that creates publics for transformative change in the agricultural and food system. The analysis is empirically grounded in the field of CSA in Germany with its various primary and secondary actors. We have taken a perspective informed by John Dewey's idea of democracy and experimentation. Through this lens, CSA initiatives constitute experiments to test alternative agricultural and organizational forms. Practitioners must constantly identify and negotiate which real problems are to be solved and how, along with who can or should have a say in this. Thus, the very idea of democracy comes into focus as its "fundamental core consists of an always-incomplete and cooperative process of experimental problem-solving that derives out of the indirect consequences of human transactions and the manifold practical experiences of people in different situations and places" (Fladvad, 2021, p. 16f.). Democracy, then, means giving everyone the opportunity to have a say whenever they are affected.

This notion of establishing effective voice mechanisms for those who are affected by a decision is widely shared within

the field of CSA. However, only some practitioners do explicitly connect CSA to the broader issue of democracy. This leads us to consider some limitations of our approach, before we reflect on the findings. While the insights we provided in this paper are grounded in empirical findings, we used categories to present and discuss them that do not necessarily resemble the perspective of the practitioners themselves. This is not problematic *per se*, and we consider this paper to rather propose a specific perspective than to give definite answers on the links of CSA to democracy. In this sense, this paper is explorative by nature. Our approach also entails decisions on sampling that need to be reflected. We gathered data predominantly on network conferences and meetings, therefore we explicitly looked at those very events that constitute moments of sharing experience, identifying problems, and trying to deliberatively find solutions to those problems. This focus might lead to overemphasizing such processes and the democratic way of life. After all, we did not directly observe the everyday experiences and practices beyond those events (although, of course, such experiences are shared at the meetings). Also, the experts we interviewed showed a high level of reflection and abstraction on these very issues—so, again, we can only offer first insights and we cannot categorically rule out to have overemphasized the relevance of democracy for CSA. However, we do feel that the approach allows to shed light on issues that are relevant both for the conception of democracy, and for the practices and governance of CSA.

We integrated different levels of analysis: primary CSA organizations with their diverse internal modes of governance; collaboration between CSA initiatives on a secondary level; collaboration with other actors within food movements, and the issue of boundaries. On the primary level, we explored varieties of food democracy in CSA by showing different modes of internal democratic governance. In each case the democratic model embodies a specific understanding of the *demos*, i.e., who is entitled to have a say in a meaningful way. Each type also entails specific limitations on whose voices are heard. This holds even for the co-operative model which, by law, entails democratic governance structures. For example, questions arise to what degree —and with what kind of bargaining power— employed gardeners are allowed to participate in decisions about their working conditions and salaries, or if it is only on the consumers to decide what they are willing to pay for the products so that economic ower might undermine democratic processes. In our view, the diversity of forms illustrates the experimental nature of CSA initiatives, which commit to shared principles and values, while each of them builds on the distinct experience of its members and deals with specific problems.

The point is not to evaluate the different organizations in terms of the quality or degree of democracy being realized. The perspective of democratic experimentalism prefers neither CSA organizations that strive to economically stabilize an existing small-scale farm nor those ambitious projects that are dedicated to large-scale socio-ecological transformation. Rather, it conceives the diversity of CSA organizations in itself as different expressions of dealing with contingency. It highlights the creative power of collaborative knowledge production and democratic communities. Diverse configurations of CSA settings are constantly being negotiated; their status as experiments thus remains open-ended.

We have shown how this modus can also be identified on the meso level of collaboration and cooperation within and beyond the network of CSA. Experiences, problems, solutions, and different kinds of democracy are shared, discussed, and elaborated on. In other words, CSA enlarges and strengthens its own public, or publics. Democratic values are pursued also on the meso level, in voluntary working groups, regional organizations, and in relations with other food initiatives on the municipal level. Decision-making and participation within the German CSA network ("Netzwerk Solidarische Landwirtschaft") are organized in an inclusive way, and network meetings might serve as examples or models for micro-level initiatives of how to practice democratic participation. Establishing a voice for everyone involves a lot of negotiation in practice as is shown, for example, by the efforts made at network meetings to create the conditions for a discourse that is as open as possible and to invite all members to participate. The network and its members also are very keen on excluding nondemocratic local food movements, especially far-right initiatives and racist practices and structures.

Finally, the idea of food democratic experimentalism can also be found in various alliances and collaborations from (primary or secondary) CSA initiatives with other political, economic, or civic actors. We highlighted the case of attempts to commonify land in order to make it available exclusively for small-scale, community-based, non-market forms of organic agriculture as an illustrative case of the kind of expanding cooperation and experimentation. Yet while CSA appears to be a valuable part of a broader movement, its somewhat limited impact on democratizing broader food systems is apparent, as the issue of social inequality and the tendency of CSA to attract mostly white middle-income groups with comparatively high income and/or status shows. Dewey himself is quite euphoric in his belief in the transformative potential of cooperative action, yet his unabated optimism raises questions. Does this perspective adequately account for systemic issues, constraints and interdependencies? For example, given the market power of transnational food corporations and the complexity and intransparency of supply chains, the power of collaborative problem solving from below seems to be restricted. Therefore, while the perspective taken here seems to be fruitful to assess CSAs as food democratic organizations, we are also aware of its limits. Also, while communities are by no means harmonic social forms, this perspective tends, like John Dewey himself did, to "downplay the persistence of conflict" (Rogers, 2016, p. 13). Elsewhere (Degens and Lapschieß, 2023) we explored areas of conflict in the field of CSA; here, we have mentioned boundaries to CSA food democracy that are linked to social inequality. Therefore, a purely harmonious vision of CSA communities does not hold.

Data availability statement

The datasets presented in this article are not readily available because they contain information that could compromise research participant privacy. Requests to access the datasets should be directed to PD, philipp.degens@uni-hamburg.de.

Author contributions

PD and LL contributed equally to this work in field work and in writing. All authors contributed to the article and approved the submitted version.

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Conflict of interest

The authors declare 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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Dachas and food democracy—What makes a (good) food citizen?

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Against the backdrop of multiple crises within—and due to—the current industrial agri-food system, food is a highly political issue. As calls for food sovereignty grow louder and the war in Ukraine exposes the fragility of global food systems, the concept of food democracy calls on all (food) citizens to engage in a democratic and collective struggle for socially just and environmentally friendly food systems. To date, "Western" examples of food democracy and formal political procedures of civil society have dominated scholarship, ignoring the self-organized, low-key, and informal political activities around food in the post-socialist East. In this article, we shed light on the aspects of food democracy within Food Self-Provisioning (FSP) practices in Eastern Estonia, which is our case study. Our empirical data is based on semi-structured interviews conducted in 2019–2021 with 27 gardeners on their so-called *dachas*—a Russian term for a plot of land with a seasonal allotment house used primarily for food production. The analysis focuses on the food-, farming-, and nutrition-related attitudes and practices of the gardeners, as well as the multitude of collective endeavors to improve food systems. Despite the precarious socio-economic and political status of the gardeners, we identified a variety of subtle, informal, and mundane forms of democratic practices and everyday resistance. We investigate the interplay of these aspects along the three dimensions of food democracy (input, throughput, output). On the one hand, FSP on Eastern Estonian dachas encompasses essential characteristics of the mainly "Western" concept of food democracy, allowing access to and participation in agricultural production while preserving (re)productive nature in the future. On the other hand, we caution against excessive optimism and romanticization of such local food communities, as they tend to remain exceptions and risk extinction or displacement if they are not valorized and reshaped through public discourse. We conclude with a plea for building and strengthening alliances between the marginalized elderly rural food producers and the more youthful urban food activists to achieve more democratic, just, and ecologically sound food systems.

KEYWORDS

Food Self-Provisioning, food sovereignty, quiet everyday resistance, food governance, quiet sustainability, civic engagement, subaltern struggles, political society in CEE

1. Introduction

Amidst multiple crises within—and due to—the current industrial agri-food system, food has become increasingly political. It serves as a point of reference for experiencing, shaping and initiating transformation processes. Social issues such as equitable access to nutritious and healthy food remain one of the core issues of global food governance (SDG2), as do environmental concerns related to intensive agriculture, industrial livestock farming and carnivore diets.

In addition to these socio-ecological aspects that have dominated critical discourses on food and agriculture so far, food has recently come to be perceived as an object and terrain of democratic practice. Subsistence farmers and smallholders are globally deprived of their land, seeds, and livelihoods while consumers face increasing alienation from their food base and limited opportunities to shape their own food-related systems. They are forced into a passive role, in which they can, at best, "vote with their forks" (Pollan, 2006) when choosing one market product over another. These developments have given rise to numerous counter-movements. Unlike the prevailing global "food security" programs that are implemented by the UN's Food and Agriculture Organization (FAO) and that most development agencies advocate, these counter-movements claim to address the root causes (rather than the symptoms) of current dysfunctions and crises. Thus, they demand either equal access to food ("food justice"), more autonomous food production ("food sovereignty"), or increased possibilities for all "food citizens"[1] (Wilkins, 2005, p. 271) to shape food-related systems ("food democracy") (Hassanein, 2008; Bornemann, 2022, p. 351).

The concept of food democracy was introduced in the 1990s by Lang (1998) in response to increasing corporate control of the food system and was further elaborated by Hassanein (2003, 2008). Central to the concept of food democracy is the idea that all people can (and should) participate actively and meaningfully in shaping the food systems that surround them (Hassanein, 2003, p. 79), and possess the know-how necessary to design socially just and ecologically sound alternatives. Ideally, food systems should provide everybody with the equal access and "means to eat adequately, affordably, safely, humanely, and in ways one considers civil and culturally appropriate" (Hassanein, 2008, p. 288). Food democracy contests the commodification of food and encourages "passive" consumers to become active food citizens who reclaim their influence, exert power, remodel, and improve the existing food system. As such, it seeks nothing less than to fundamentally and collectively reshape power relations in and around agri-food systems and to challenge the structure of capital, corporate control, and reckless profits of industrial agri-food systems (Hassanein, 2008, p. 289; Renting et al., 2012; Booth and Coveney, 2015).

Most forms of the alternative agri-food movement and AFNs (alternative food networks) originate from the Western context, or, increasingly, from the South (e.g., Thornton, 2020). However, as various scholars, including Müller (2020), Jehlička (2021), and Pungas (2023), have demonstrated, knowledge originating in the East,[2] and alternative practices already in place there seem to be systematically overlooked. Furthermore, Sen (2006, p. 210) problematizes the "frequently reiterated view that democracy is just a Western idea" and that democracy is exclusively associated with the Western world and value system. Classic examples of food democracy in the Western scholarship include various formal forms of political activities or collaboration through food policy councils, food banks, food co-ops, Community Supported Agriculture (CSA), urban (community) gardening projects, as well as educational programs such as Farm-to-School, school-cooking and vegetable gardens in school yards (Carlson and Chappell, 2015, p. 6–7; Bornemann and Weiland, 2019, p. 109). Hitherto, most frameworks on food democracy case studies are consumption-oriented and have focused on one of these—"Western"—examples. Hassanein (2008), for instance, has extended the theory on food democracy by investigating qualitative and quantitative data in four dimensions of food democracy in Montana, US, that involved students, a CSA and a food bank. Lohest et al. (2019) explored the contribution to food democracy of three AFNs, including an organic shop brand, an online shop and a non-profit collaboration between organic farmers and purchasing groups in Brussels. Further case studies on food democracy include food policy councils in Germany and in the US (Sieveking, 2019; Berglund et al., 2021) and food sharing initiatives in Western European cities (Davies et al., 2019), among others.

Against this backdrop, we aim to shed light on the agricultural practices prevalent in the East. Food Self-Provisioning (FSP) at dachas during the Soviet era is the world's largest example of (peri-)urban agriculture in contemporary history and remains the most prevalent AFN example in the Global North (Brown, 2021). As a vivid agricultural practice in post-socialist Central and Eastern Europe (CEE), it deserves further scholarly attention with regard to its political dimension and potential, which we hope to contribute to by exploring the FSP practice through the lens of food democracy. FSP is most often understood as the practice of "growing and consuming one's own food using one's own (predominantly non-monetary) resources" (De Hoop and Jehlička, 2017, p. 811) that takes place outside the conventional agri-food system. However, FSP also encompasses various social practices of care, mutual aid, and gift-giving, as well as collaboration and deliberation processes, to name a few. The political dimension of these collective practices and processes will be of particular interest in this paper.

Our main research objective lies in exploring the extent and forms of food democracy in Eastern Estonian dachas. In particular, we are interested in the following aspects: (i) Which properties of food democracy are present and/or are being lived out? (ii) Which aspects are scarce or insufficient? (iii) What are the drivers and barriers to the democratization of food in such context?

This article is structured as follows. In the next Section 2, we introduce the concept of food democracy, apply it to FSP practice in Eastern Estonia, and explain its main features. In Section

1 The terms "food citizenship" and "agrarian citizenship" are often used interchangeably with the term food democracy. Food citizenship differs from food justice and food sovereignty in that it focuses on transitioning people from passive consumers to active food or agrarian citizens; it is not based on rights or entitlements, nor is it adversarial, but rather seeks to diminish the influence of "Big Food" by providing information, skills, and alternative access to food in order to democratize food systems (Booth and Coveney, 2015, p. 16; Wittman, 2009). However, similarly to all alternative food system approaches, food democracy is a critique of an increasingly transnational agri-food system and its predominance of coregulatory governance.

2 Within this paper, we use the term "East" to refer to the former Soviet Union and the Central and Eastern European (CEE) countries that experienced Soviet-style state socialism.

Case study and methodology, we describe our case study and its region-specific and socio-culturally relevant context and present our methodology and empirical framework. In the following Section 4, we will demonstrate and discuss our research findings and explore the existing and problematic/insufficient features of food democracy before concluding with a discussion in the final Section 5.

2. Quiet food democracy?

2.1. Spotting food democracy on the dachas

Lang (2007) basic premise of food as the center of democratic processes first evokes the question on what we mean by democracy. In this paper we use Pateman (2000, 2012) theory of participatory democracy, deep democracy as applied to urban agriculture by McIvor and Hale (2015), Barber's (2004) differentiation between thin and strong democracy and lastly, draw onto Mouffe (2000) understanding of democracy as a constitutive, "open" process. According to Pateman (2000), democratic values such as collaboration, openness and commitment to a common good can only be sustained if they shape citizens' daily lives. This stands in strong contrast to the "realist" and (neo)liberal notion of representative democracy, in which citizens contribute to democracy merely through their vote. Deep democracy, as described by McIvor and Hale (2015), implies a social form of interaction and collaboration in which citizens become *agents* of change rather than remaining mere *subjects* of the larger socio-economic or political structures that surround them (Wolin, 2008). According to McIvor and Hale (2015), deep democracy "requires processes by, and spaces within, which citizens can exercise some measure of control over decisions that affect their lives" (McIvor and Hale, 2015, p. 8). The everyday relationships and practices of ordinary people are thus both a *space* and a *means* through which they can "assume responsibility for addressing common challenges and pursuing collective visions" (Wolin, 1989, quoted in McIvor and Hale, 2015, p. 8). These understandings of democracy inform our exploration of FSP on the dachas through the lens of food democracy—the daily labor, commitment, and various forms of interaction constitute the foundation for food democracy on the ground. Another differentiation with regard to democracy is that of thin and strong democracy by Barber (2004). In contrast to "thin" democracy, which is based on an individualistic "rights" perspective with a limited role for citizenship, participation and civic virtue, in a "strong" democracy people govern themselves as citizens (instead of delegating the power and responsibility to representatives) and engage in a messy and relational work indispensable to collective action (McIvor and Hale, 2015, p. 7). Politics in a "strong democracy" is regarded as an essential part of life that plays a prominent and natural role and is characterized by regular engagement in decision-making processes (Booth and Coveney, 2015). Moreover, we understand democracy not only as a capacity but as a constitutive process of people (*demos*) to act collectively to bring about change as they assume agency and power (*kratos*) (Ober, 2007). Constitutive democracy then implies various collective processes of learning, exchange, and opinion shaping, in this case related to agri-food systems (Mouffe, 2000).

Based on these understandings (a participatory, deep, strong and constitutive), food democracy can (or even should) be an underlying element constituting one's daily way of living and shaping food-related interactions. As such, we aim to shed light on more invisible, quiet, and subtle forms of democratic practices around food that often take place in informal networks with covert forms of organization and coordination. We assert that in the daily interactions among FSP gardeners, there are a multitude of joint opinion-forming, negotiation, and decision-making processes that are political and can be viewed through the lens of food democracy. Our objective, therefore, is to make visible the political actions, implications, and overall potential within the everyday life of the *dachniki* and to explore the political dimension of the prevalent daily activities around food.

As various scholars such as Thelen (2011), Jacobsson (2015), and Jacobsson and Saxonberg (2016) have already noted, the search for such a civil society as is common in the "West" (consisting of associations and NGOs with formal memberships that organize visible protests with political demands, etc.), in the "East" will only reproduce the overly pessimistic views of "relative backwardness" (Stenning and Hörschelmann, 2008) and "understanding of political life in the [CEE] region in terms of absences, voids and deficiencies" (Rekhviashvili, 2022, p. 1). Jacobsson and Korolczuk (2020), in their study on the CEE civil society and grassroot movements, emphasize the importance of uneventful, low-visibility, low-profile and small-scale protests and covert resistance, the collective formation of agency and the process of becoming active in the public sphere ("political becoming"). They conclude that a "reassessment of post-socialist civil society is needed on both empirical and theoretical grounds" (Jacobsson and Korolczuk, 2020, p. 126). Císař (2013a,b) and Goldstein (2017) have argued that invisible struggles, "everyday discrete activism", or "self-organized civic activism" are not only common but also highly rational in contexts where other forms of activism are ideologically or politically problematic, risky, or ineffective. Such "infrapolitics" (Scott, 1985) or "politics of small things" (Goldfarb, 2006) are less radical, more mundane and in many cases more likely to be organized in informal, spontaneous and fluid networks. As such, they pose a methodological challenge and require close knowledge of, and sensitivity toward the local context. However, to neglect these specific forms of civic activism and collective action simply because they do not correspond to "Western" forms of civil society due to the methodological and theoretical lenses used in the prevailing research would be highly problematic.

Eastern Europe is an important case for the study of food democracy, as between 30% and 60% of the population there grows and consumes a considerable amount of their own food (Smith and Jehlička, 2013; Church et al., 2015, p. 72), in comparison to, for instance, 6% in Denmark and 5% in the Netherlands (Alber et al., 2003, p. 11–12). Despite the initial framing of FSP as a "survival strategy of the poor" who "muddle through economic transition with garden plots" (title by Seeth et al., 1998; see also Shlapentokh, 1996; Humphrey, 2002), scholars have increasingly emphasized the wide spectrum of other motives and benefits of the FSP practice in the CEE (Jehlička et al., 2020) in general, and in Poland (Smith et al., 2015), Hungary (Balázs, 2016), the Czech Republic (Sovová et al., 2021), Croatia (Ančić et al., 2019), Baltic countries (Mincyte, 2011; Aistara, 2015; Pungas, 2019), and Moldova (Piras, 2020), in particular. In addition to various

beneficial aspects for psychological and physical health, care for family members and good quality food, these agricultural practices (often including crop rotations with intercrops such as legumes, organic fertilization, composting, and green manure), have a positive impact on soil health and biodiversity, thus serving as an example of "quiet sustainability" (Smith and Jehlička, 2013) and "quiet food sovereignty" (Visser et al., 2015).[3] "Quiet" in this context means that FSP gardeners do not advertise the environmentally beneficial aspects of their practice, and the smallholders in Russia studied by Visser et al. (2015) do not make explicit political claims, as does La Vía Campesina. However, the positive environmental impact and ideas of the global food sovereignty movement are still present, albeit rather implicitly. Similarly to these examples, we find it important to explore the full range of manifest food-related collective actions and activities in a region that, due to its past, is characterized by a very different political culture, democratic traditions, and civic culture than the "West". Contrary to the dominant narrative of weak, passive, and donor-driven civil society in CEE countries that lacks social and political trust, and despite the absence of a multitude of formal forms common in Western examples of food democracy, we contend that regionally specific quiet, subtle, and informal forms of food democracy (such as exchange and cooperation, joint opinion formation, open discussion and negotiation processes) prevail and should not be overlooked.

Furthermore, if we apply the properties of democracy concepts mentioned above to the concept of food democracy, food democracy becomes a way of life in which the variety of everday practices substantially constitutes the political sphere of the object ("doing democracy" as well as "doing food" such as growing, preparing, consuming, organizing, coordinating, and sharing food). This adds to the various formal and visible forms of collaboration, decision-making, negotiation, and social change that are also present. Therefore, FSP on dachas in Eastern Estonia makes an interesting case study because the lives of gardeners revolve around FSP practices and are often entirely shaped by dacha gardens and daily food practices—at least during the respective gardening seasons (from April to September).

2.2. Operationalizing food democracy at the dachas

As a fairly broad concept, food democracy has been operationalized through a variety of criteria and theoretical frameworks. According to the most cited scholar on the topic, Hassanein (2008), food democracy is foremost about collaboration and collective action for the sake of food system sustainability, where individuals can design and govern their own food systems and their relationship to food (Hassanein, 2003). Further criteria of food democracy include the acquisition of knowledge, the exchange of ideas, the development of a sense of (collective) efficacy, and the contribution to the common good (Hassanein, 2008, p. 295). Other scholars have used additional dimensions to assess food democracy: Davies et al. (2019) have identified participation, the right to food, sustainability, and realignment of control as key dimensions. Lohest et al. (2019) have analyzed the exercise of food democracy in terms of the political, social, and economic power of food citizens and differentiated between practice (process) and performance (goal) of food democracy within their case studies. McIvor and Hale (2015) have asserted that lasting relationships, the display of power, and the cultivation of commons are conditions for a thriving "deep democracy" in urban agricultural initiatives.

Drawing on Fraser (2019) work on democracy and justice, we join the scholars that differentiate between two aspects of food democracy (McIvor and Hale, 2015; Friedrich et al., 2019; Lohest et al., 2019). First, the procedural dimension of food democracy includes participatory processes leading to the creation of spaces for debate, negotiation, and protest, and is essentially a *process* of policymaking around food systems *by* (input) and *with* (throughput) citizens. Second, the substantive dimension of food democracy results in impacts on specific agricultural production modes or agri-food systems where food democracy has a *goal* (output/outcome) to transform food systems by addressing the problems created from imbalances in power (Bassarab et al., 2019; Friedrich et al., 2019). In this paper, we approach food democracy based on the concepts of participatory (Pateman, 2000, 2012), deep (McIvor and Hale, 2015) and strong democracy (Barber, 2004), and democracy as a constitutive process (Mouffe, 2000) and explore the case of FSP through this lens. Furthermore, we follow Bornemann's framework (Bornemann, 2022), which applies Schmidt (2013) system-theoretical concept of complex democracy, along with its three central features—the input, throughput and output dimension of democratic processes. As such, we add a third dimension—a precondition for food democracy as an input—to our analysis because we consider this dimension crucial within production-oriented frameworks. The three central features of food democracy are concretized as follows:

Input—understood here as the *preconditions* for codesigning food system—ability (e.g., know-how, time, physical condition), access(ibility) and infrastructure that empower and enable people to articulate interests, ideas and to participate, co-create, and design self-determined and preferred alternatives in relation to food systems.

Throughput—understood here as the *doing* of food democracy—procedural quality, transparency, and deliberative capacity in order to sensitize for, discuss, negotiate, develop and co-create alternatives, build coalitions as well as oppositions, raise collective efficacy, and coordinate strategies to balance or reshuffle existing power relations.

3 The concept of "quiet sustainability" encompasses "widespread practices that result in beneficial environmental or social outcomes and that do not relate directly or indirectly to market transactions, but are not represented by their practitioners as relating directly to environmental or sustainability goals" (Smith and Jehlička, 2013, p. 148). Building upon this concept, Visser et al. (2015) coined the term "quiet food sovereignty" when exploring the traditional small-scale farming practices in post-socialist Russia through the lens of food sovereignty. The authors conclude that the smallholders share the visions and ideas of the global food sovereignty movement, despite the political dimension or discourse on the rights and entitlements being rather implicit among smallholders (Visser et al., 2015) in comparison to the Nyéléni Declaration (2007).

Output—understood here as achieving *desired changes* in the malfunctioning of the food system, or, alternatively, constituting alternative models (e.g., food security, sovereignty, low foodprints).

3. Case study and methodology

3.1. Case study—Why Estonia, why FSP, why *dachniki*?

The dacha cooperatives and gardeners in Eastern Estonia are the subject of this article, as they still produce extensive amounts of fresh and healthy food through the practice of FSP without being "professional" farmers or smallholders. Instead, every household either has a dacha garden or at least access to one (through other family members or friends). This phenomenon has a complex socio-historical background which plays an integral role with regard to food democracy. Eighty-five percentage of the inhabitants of the Eastern Estonian county Ida-Viru represent a Russian-speaking minority, many of whom were resettled there during the Soviet era from thousands of kilometers away between 1950 and 1970 to work in the local industry (Raun, 1997, p. 336; Stat, 2021). As early as the 1970s and 1980s, local factories and state-owned collective farms (*kolkhozes*) started providing their employees with gardening plots on devalued state-owned land to guarantee food security and a more diverse food supply in a "shortage economy" (Kornai, 1980). After the collapse of the USSR, most dacha gardens in Eastern Estonia were privatized, and although gardeners remain members of the garden cooperative, they are now private owners of their gardens.

After regaining independence in 1991, Estonia enforced rigorous neoliberal economic reforms that disproportionately affected the Russian-speaking minority in terms of unemployment and poverty (Lauristin, 2003; Bohle, 2009; Pungas, 2017). Attempting to shake off the unwanted past, Estonia's political elite opted for "an intentional and complete break with the Soviet past and everything that reminds of it" (Lauristin, 2003, p. 610). This included socialist structures and institutions, but also norms of equality and solidarity (Bohle, 2009; Lauristin and Vihalemm, 2009) and culminated in the so-called Citizenship Act in 1992, which resulted in the loss of citizenship for the local Russian minority if they could not demonstrate the required level of Estonian language proficiency (Riigiteataja, 1992; Hughes, 2005; Järve and Poleshchuk, 2019). In 2020, Estonia still counted approximately 70,000 stateless citizens, many of whom live in Eastern Estonia (BNS, 2020). The reasons for this ongoing statelessness are manifold and, as various scholars have shown, not "black-and-white" (Vetik, 2012). Yet, what can be said with certainty is that many ethnic Russians have felt like "second-class citizens" since the 1990s (Lauristin, 2003) and have lost their political trust to a considerable extent (Hallik, 2006; Saar, 2007). Especially the elderly, who constitute the majority of the Ida-Viru population, have seen their knowledge and practices devalued throughout the last decades of neoliberal transformation and nationalist framing. Furthermore, as some scholars have argued, gardeners in this region experience a three-fold "peripheralisation" as they are located on the flip side of the respective urban-rural, center-periphery, and east-west divides (Sovová and Krylová, 2019; Pungas et al., 2022). These tensions have been further exacerbated by the war in Ukraine (ERR, 2022; Henley, 2022; Pungas and Kiss, 2023).

Against the backdrop of such socio-economic hardship and loss of social status and citizenship in the 1990s, dacha gardens played an essential role for many. Our interlocutors can be thus characterized by challenging socio-economic biographies, distrust of the (neoliberal Estonian) state, and at the same time a high degree of trust in the dacha gardens, which provided sustenance during difficult times. Both the FSP practices in the dacha gardens and the informal networks of mutual aid cultivated in the gardens were the main anchor for many *dachniki* in times of political and economic turmoil, and helped to maintain a degree of social trust. By contrast, formal infrastructures or state (aid) more commonly brought massive disillusionment. This socio-historical background of gardeners and the role of the dachas throughout history makes the FSP practice a particularly interesting yet challenging case to explore food democracy from within.

Moreover, our greatest concern is to shed light on dacha gardeners, not because the FSP practice is a vivid example of AFNs, but because gardeners—mostly elderly and part of the Russian-speaking minority—are seen as "passive and apolitical, unable or unwilling to engage in any collective attempts" and as such are disregarded as political actors with democratic agency. Similar to Leipnik (2015) observations in Ukraine, the elderly in East Estonia is portrayed as passive receivers of assistance and "as actors of a past epoch, ideologically at odds with the societal changes and political order" (Leipnik, 2015, p. 80), and their political views critical of neoliberalism, for instance, are in many cases delegitimized as a "Ostalgie" and de-politicized as "Soviet mentality". Apart from the fact that some of the gardeners, as "stateless" citizens, cannot actually vote in parliamentary elections (and are thus politically "silenced"), they are not recognized as "real" civil society in Estonia. Rekhviashvili (2022) cautions against overwriting differences and divisions between groups mobilizing as rights-abiding citizens and those not recognized or treated as such by subsuming all identified everyday political activities under the concept of civil society. Instead, she proposes to differentiate between civil society as understood in Western scholarship, and Chatterjee (2004) concept of political society to account for a diversity of subaltern struggles deemed backward. The concept of political society by Chatterjee (2004) "explicates how this alternative terrain is marked by partial or tenuous citizenship and the recognition of some groups and populations who do not fit in modernization agendas yet are exposed to, and contest contemporary forms of governmentality" (Rekhviashvili, 2022, p. 14). This might also result in the depreciation of subaltern activism as passive and reactive self-help groups or mere not-in-my-backyard (NIMBY) groups that mobilize politically only when they perceive an intrusion or threat to their own private sphere, and may reflect a de-politicization of their claims (Jacobsson and Korolczuk, 2020, p. 131ff). Therefore, and despite the methodological challenges of researching the political dimension of this specific target group, we aim to shed light on dacha gardeners precisely because their values and voices have in many ways been oppressed, silenced, or marginalized, for example, in comparison to the active urban and young activist volunteers in community gardens in Estonia's capital. Within such communities as dacha garden cooperatives, which are commonly perceived as resistant to change, passive,

and atomized, many collective activities might be overlooked by researchers because they are perceived as unradical, apolitical, or irrelevant acts of everyday life. In many cases, however, they have important political implications and represent specific forms of resistance (Jehlička et al., 2019; Jacobsson and Korolczuk, 2020).

3.2. Research design, interviews, and framework

This article takes a qualitative approach and builds on semi-structured in-depth interviews conducted during field research in 2019, 2020, and 2021 in and around the Estonian city of Sillamäe (dacha cooperatives Sputnik and Druzhba) and Narva (various dacha cooperatives in Kudruküla, Olgina, and Kulgu) (Figure 1). In addition to interviews, the research included on-site participant observations at public and private events, photographic materials, and informal conversations with the gardeners documented with written field notes. We used a semi-structured interview guide[4] developed during the initial field visit in 2019. A total of 45 interviews were conducted with 59 gardeners and relevant stakeholders (ranging from 10 to 180 min, mostly 45 to 90 min), of which 20 interviews with 27 gardeners were analyzed and coded for this article. Furthermore, we examined the meeting protocols (Sputnik, 2022) and the association statutes (Sputnik, 2019) of the largest garden cooperative Sputnik near Sillamäe with over 1,100 members and its own homepage (Sputnik, 2022). We further analyzed the local newspapers "Sillamäe Vestnik" (Vestnik, 1993–2017) and "Infopress" (Infopress, 2006) with regard to the issues raised by the garden cooperative members (mostly Sputnik) in Sillamäe.

The dacha garden cooperatives we visited are formally voluntary associations whose aim is to provide various services (e.g., security and certain infrastructure) to their members who own privatized garden plots. Despite having been cooperatives in the Soviet era until the privatizations in the 1990s, the legal term now is, roughly translated, "garden partnership" (садовых товарищество in Russian), as most garden plots are privately owned, but the common infrastructure is managed in "partnership". However, since gardeners commonly refer to the "garden partnership" as a cooperative, we also use this term in this article. The gardeners are members of the cooperative and are invited to annual general meetings (AGM) and thus possess decision-making power on major issues affecting the whole cooperative (one garden plot = one member = one vote). Yet, democratic principles are not applied entirely, as the board plays a very strong role in decision-making in many cases. Thus, cooperative members are subject to a number of regulations, and experimentation with different types of decision-making and conflict moderation tends to be unwanted.

The interview partners represent a broad spectrum with regard to educational background (from highly educated engineers and civil servants to hairdressers, kindergarten teachers and mine pit workers), occupational status (in school, employed or retired), gender and age (see Table 1). However, older and female interview partners are over-represented at the dacha gardens and thus also as interviewees (roughly 2/3 each). We conducted interviews with both gardeners who have had gardens for decades and gardeners who have only recently become garden owners, as well as with cooperative chairs board members, and staff (e.g., security) to gain different insights into aspects of food democracy within the garden cooperative. However, the sample is not representative of the different dacha garden cooperatives across the nation (nor in CEE), as we only targeted dacha gardeners with a considerable quantity of produce in their gardens—the garden(er)s with a mere lawn and barely any garden beds are not represented in this study. In the garden cooperatives we visited between 2019 and 2022, ∼2/3 of the gardeners use a considerable area in their gardens for food production and 1/3 for mainly recreational purposes. Therefore, it is acknowledged that the full spectrum of attitudes and activities associated with food democracy among dacha gardeners may not be reflected.

As food democracy is a highly complex phenomenon that encompasses an assemblage of cultural, political and biographical traditions, values, and beliefs, all of which are embedded in social (power) relations on the ground, it evades any simple categorization into a rigid set of properties that are easily tested or measured. For this reason, the semi-structured interviews focused broadly on (1) gardening practices, user groups and their motives, as well as collaborations and tensions within the cooperative, (2) the socio-economic, historical, and political context of the gardens and FSP practices in the respective region, as well as (3) the gardeners' concerns, views, and (emotional) perceptions of agri-food systems in general. Through these thematic foci, we sought to build an understanding of experiences related to the variety of themes relevant to food democracy as mentioned above. In doing so, we proceeded in an exploratory rather than comprehensive manner, and certainly did not capture the whole spectrum of this complex phenomenon, nor all political facets regarding food and FSP among dacha gardeners. In most cases, the interview subjects not only answered questions, but also raised and addressed new issues themselves, resulting in lively and stimulating dialogues. We did not specifically inquire about formal political participation, party preferences or democratic attitudes for two reasons: firstly, part of the respondents proved to be reserved toward what they perceived as "political" discussions or avoided these topics altogether. Secondly, our objective was to explore rather informal, self-organized and covert, "quiet" forms of everyday food democracy, related practices, activities and motives. In many cases, however, the issues that were initially avoided manifested themselves latently or emerged on their own accord in the course of the conversation. Most of the gardeners were approached in the gardens and not contacted in advance. In some cases, we obtained their contacts from media articles, neighbors, or the board of the cooperative.

The interviews were mostly conducted in Russian, recorded, transcribed, translated into English, and anonymized by the authors. For our qualitative analysis, we selected 20 interviews with 27 gardeners in which, according to our critical interpretation, gardeners actively raised issues and concerns linked to food democracy. Subsequent coding was done using MAXQDA according to the principles of content analysis (Mayring, 2010)

4 An example of the interview guide used during the interviews can be found in the Appendices.

FIGURE 1
The satellite photo **(left)** of Ida-Viru region between Sillamäe (on the left, right at the Baltic Sea) and Narva (on the right, at the Russian border) with the marked areas of dacha cooperatives (Sputnik, Druzhba) or their sites (Kudruküla, Olgina, Kulgu). A map **(right)** of the Sputnik dacha cooperative with over 1,100 garden plots.

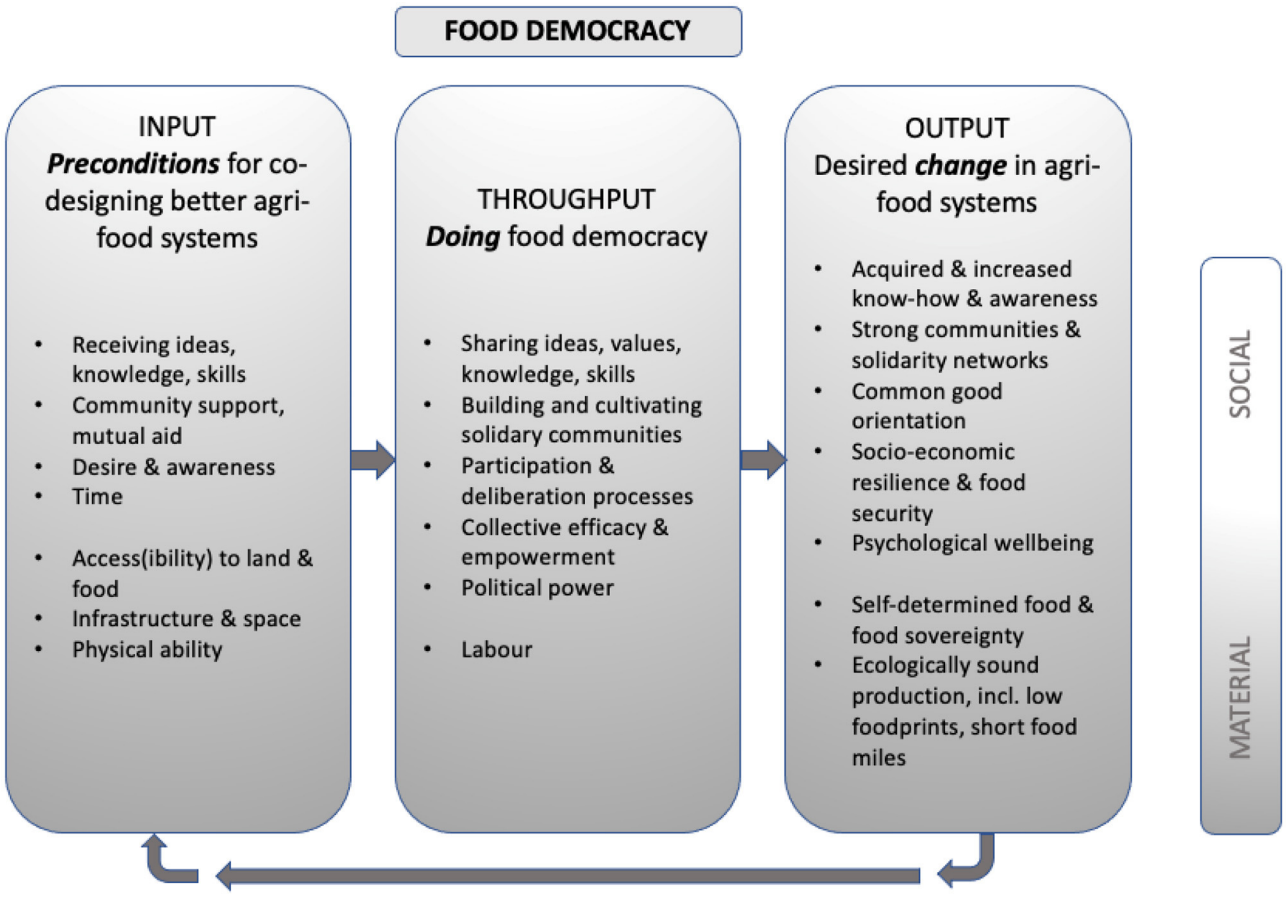

FIGURE 2
Empirical framework as inspired by the work of Hassanein (2008) and Bornemann (2022), as well as by theories of participatory (Pateman, 2000, 2012), deep (McIvor and Hale, 2015), and strong democracy (Barber, 2004), and our empirical data.

and was guided by the concepts of deep, participatory, and strong democracy (as a constitutive process), as well as the suggested frameworks of Hassanein (2008) and Bornemann (2022). These theories and frameworks served us both as tools and as points of departure for the discussion on food democracy. They provided the initial main coding categories (e.g., input, throughput, output from

Bornemann, 2022) and were complemented by additional (sub-) codes (e.g., social vs. material dimension) during the course of the qualitative content analysis. The results of our qualitative analysis of the found properties of food democracy can be seen below in our production-oriented framework (Figure 2).

Our empirical data has shown that several additional factors might be essential for food democracy on the ground. For instance, the material dimension of food democracy does not seem to be adequately addressed in previous empirical studies on the topic (Hassanein, 2008; Carlson and Chappell, 2015; Bornemann and Weiland, 2019; Sieveking, 2019; Bornemann, 2022), with the exception of Lohest et al. (2019), who emphasize economic power alongside social and political power. We have found that the material dimension (which is essentially embedded in unequal power relations) can *enable* or *hinder* food democracy, regardless of existing social aspects such as knowledge, participation or transparent and deliberative procedures. Therefore, we have distinguished between two different dimensions (social and material) of input, throughput, and output categories of food democracy. However, the respective categories are all hybrid. We are aware that by doing so we reproduce problematic dichotomies, but at the same time we consider it necessary to distinguish, for instance, between the social and material dimension in order to illuminate our reading of food democracy, which requires both the social dimension (for the sake of democracy/people) and the material dimension (for the sake of food/nature). Furthermore, some aspects of food democracy such as knowledge, skills, know-how, as well as solidary networks and strong communities seem to be essential for all "phases" of food democracy—they are indispensable as preconditions for food democracy, crucial for its process, and they constitute a desired goal of democratic food systems.

Through the analysis of our empirical data, the following preconditions for and properties of food democracy crystallized. We aim to demonstrate the variety of social forms from political demands, opposition and resistance to subtle, daily and mundane processes of collaboration, knowledge sharing and collective opinion formation. In addition, we draw attention to the material dimension, from access to land and food, physical ability to perform sustenance labor, to ecologically sound production, including low foodprint, short food miles, protected biodiversity and enhanced soil quality.

4. Results and discussion

4.1. Input—Preconditions for co-designing better agri-food systems

We understand "input" in food democracy as the variety of *preconditions* for codesigning food system(s). This includes the skills and ability (e.g., know-how, physical condition), access(ibility), and infrastructure that enables people to articulate their interests and ideas, participate, co-create, and design self-determined and preferred alternatives in relation to food systems. Our empirical data has shown that various factors have been found to be essential for food democracy as an "input". As such, in the social dimension, we consider relevant preconditions to be (1) acquired knowledge and skills, (2) community support, and (3) desire/awareness and (4) time resources for active engagement. In the material dimension, we have found that (1) access(ibility) to land and food (e.g., logistics, public transport, or vicinity to the city), (2) certain infrastructure (e.g., electricity, water, space), and (3) physical ability and health conditions that enable gardening are equally important and should not be underestimated in their importance.

4.1.1. Social dimension

As several scholars such as Hassanein (2008), Jhagroe (2019), and Adelle et al. (2021) point out, **knowledge and skills**, both about food (or FSP) and "democratic" skills such as collaboration and tolerance, are essential prerequisites for food democracy. These skills are even more critical when larger quantities of food are produced organically that could meet a significant portion of a household's needs, as is the case in FSP practice. The extensive know-how is usually passed on from (grand)parents to new gardeners and generations, shared with neighbors or, more recently, acquired through television and discussed in various Internet forums: *"We are talking about the use of various natural, popular remedies. And it goes from one generation to the next. The grandmothers pass it on to the children and then to the grandchildren. [..] And everyone knows that as soon as a caterpillar appears on a cabbage head, you need to treat it with a fruit vinegar." (Oleg, gardener, Sillamäe)*

In addition, **community support, solidarity, sharing, and mutual aid** plays an essential role. This is visible, on the one hand, in the form of the cooperative as an official structure that acts as a legal entity in the interest of the gardeners, and on the other hand, as a more informal community that shares and exchanges its seed(lings) and garden produce, helps with know-how and physical labor, or borrows tools. *"With the cucumbers, we didn't pull the sprouts off, and then one time a neighbor [stopped by] and said, 'what are you doing? You have to pull them off!'—and she cleaned our whole greenhouse, and that's how we slowly got into gardening." (Magdalena, gardener, Sillamäe)*

Finally, the **desire** (implying **awareness**) to consume "unprocessed," "clean," and "real" (all of these adjectives were regularly used by gardeners) food and provide it to one's family is a strong motive for many gardeners, and explains the willingness to invest a lot of time and physical labor in FSP practices: *"We have a grandson—this year he will start school, he turned seven. I don't want him to eat from the shops, I want him to eat clean [produce]" (Vlada, gardener, Sillamäe)*. This desire is also manifested in the strong need to be in nature, to engage with it and have "fingers in the soil", as has already been demonstrated by various scholars (Zavisca, 2003; Sharashkin, 2008; Ančić et al., 2019; Pungas, 2019; Sovová, 2020).

However, the desire can only "emerge" when there is enough **time** to spend at the dacha garden. This, in turn, counters the perceived alienation from nature (and feeds the desire for "organic" food). The temporal aspects become often evident in younger generations who seem to only want (or have time for) the "shashlik,

rest, trampoline, pool", as noted by an older gardener (*Lyudmilla, gardener, Sillamäe*). Many gardeners cited the time factor as the main reason why most people could not practice FSP "properly" or spend more time in their gardens, or why FSP would not generally be applicable for most people. Considering that retired people have more (free) time, it is also not surprising that most of our interview partners were elderly, as they were mostly the ones working in the gardens with vegetable beds. In contrast, younger generations tend to have recreational areas in the garden with fruit trees, berry bushes, flowers, and herbs that do not require much labor. As one gardener told us, *"I thought about planting less so I could rest. Because the youth around us, everyone around us, all rest, only I work. But they have small children that don't allow them to spend time on the garden" (Tania, gardener, Sillamäe).* Another gardener commented, "*Especially the younger ones have only the 'green zone'.*[5] *It is us elderly who are busy [with the gardens].*" *(Anushka, gardener, Narva).* The amount of time that the most diligent gardeners invest almost daily (~2–6 h) would be unimaginable for people with full-time jobs in the city and possibly also with caregiving responsibilities for family and children with which they already struggle.

4.1.2. Material dimension

Material **access to** (and affordability of) **the land** (including aspects of ownership and property) (or alternatively sufficient material resources or economic power to purchase healthy food) are essential preconditions for food democracy. The land does not need to be private property of the gardeners, as long-term warranties and affordable (or free) leasing can equally contribute to the flourishing of alternative food systems such as FSP, as the case of Eastern Estonian dachas has shown throughout history. Beginning in the 1960s, factories around Narva, Sillamäe, and throughout the Ida-Viru region began providing 600 square meter garden plots to their employees virtually free of charge to provide food security and "meaningful and active" recreation. In the 1990s, these garden plots were converted into a private property, which the former tenants bought for a more symbolic monetary value or vouchers. *"Back then [1961], there was [..] a shortage of vegetables, fruits, and throughout the Union [USSR] the [so-called] consumption program was announced. And they started giving 600 square meter garden plots" (Anna, gardener, Sillamäe).*

However, when such food gardens are not in private hands, the exchange value of peri-urban areas suitable for FSP often exceeds its use value. This is especially the case in areas around larger cities and capitals, where purchasing (or even leasing) a large enough area for FSP would be unthinkable for most urban residents without some support from city authorities, such as supportive regulations or subsidies. As a result, FSP practices must compete with rising real estate prices around urban centers and are subordinated to more profitable land uses such as capital-intensive commercial or real-estate development projects (Pungas et al., 2022). For instance, the creation of new FSP garden plots and community projects around the capital city Tallinn would counter unfavorable conditions and leasing prices. In fact, in many cases, community garden projects in the capital have become mere placeholders for real estate investments (Benjamin, 2020; Pungas et al., 2022), forced to leave as soon as a new real estate project is in the pipeline.

This is different in Ida-Viru county, which tends to suffer from rural exodus (Leetmaa, 2020, p. 28). In addition, the peri-urban areas around Narva and Sillamäe also do not have a high exchange value because the cooperatives were established on the swampy wasteland. Although the prices of garden plots have been steadily increasing, especially since the COVID-19 pandemic, most residents already owned their garden which they had inherited or bought in advance to the rising prices. A board member of the cooperative reflects on the meaning of the garden plots after the land privatization: *"The laws are different, the lifestyles are different. But the land remains" (Oleg, gardener, Sillamäe)*. The plots are still rather affordable in their respective regions and are extremely common in Sillamäe, as Oleg explains: *"And in our town like, almost everyone has a dacha" (Oleg, gardener, Sillamäe).* However, the private status of dacha gardens could also potentially have negative aspects, as gardens (and what is grown there and how) are generally considered a private matter (see also Jehlička et al., 2019, p. 8). This, in turn, could encourage the isolation of some gardeners, rather than determining and designing food production together with the community as a whole. Despite this potential "susceptibility" to individualism and atomization, formal and legally binding regulations and protracted collective discussions on food production would most likely be met with skepticism, though for understandable reasons—the negative experiences with the state collectivization of farms in the Soviet era have left a stain on anything declared formally "collective" (Jacobsson and Korolczuk, 2020).

However, not all dachas are privately owned—in Kulgu, many illegal dacha gardens are located directly under high voltage lines (see Figure 3). The gardeners have secretly and gradually appropriated the empty wasteland for their own food growing purposes and have managed to mobilize community support in Kulgu to ensure that their gardens continue to be tolerated by the land owner. These collective actions of occupying wasteland and maintaining it as one's own do not make newspaper headlines and are not motivated by ideological values other than common sense and the implicit understanding that the land belongs to the ones who cultivate it. This practice demonstrates how covert political agency and resistance (e.g., against the negative experiences of mass privatization in the 1990s) can be undertaken, even though the formal means may be lacking.

Since the gardens are located only a few kilometers from the city of Sillamäe or Narva, they can be reached by the *dachniki* either on foot, by bicycle or *via* a free bus line. This is an important requirement in terms of **logistical accessibility** (with regard to affordable and needs-oriented transportation and vicinity to the city). As in many cases in Estonia the "typical" summer houses or farms are located far away from the cities, and are often only accessible for the urban population by their own car on weekends and holidays, the vicinity of the garden plots, which allows daily accessibility (e.g., for watering) by public transport and/or by bicycle, should not be taken for granted: *"Yes, 20 minutes by bike*

5 The gardeners differentiated between two types of garden areas, on one side the so-called "green zone" [зеленая зона in Russian] (recreational area with lawn, flowers, barbeque area, trampoline for children etc.) and on the other side the edible plants [огород] (vegetable garden).

FIGURE 3
Illegal dacha garden plots with green houses **(left)**, potato fields **(middle)**, and dacha allotment houses **(right)** in Kulgu, which have been tolerated for decades by the municipalities as well as the electricity company, which owns the land under the high voltage lines (photo by the author).

from home, or there is a free bus. It has been done well here. [..] The bus goes there in the mornings and takes people back in the evenings. For free. Very convenient. Our city hall provided us with it as a present" (Tania, gardener, Sillamäe). The accessibility and vicinity of the gardens also enables regular contact and interactions with nature and food, and counters the increasing alienation of urbanites from surrounding more-than-human nature (described as "nature gap" by Schuttler et al., 2018). It enables parents to bring their small children easily to the dacha gardens of their grandparents or stop by after a working day themselves. All that fosters regular as well as emotional connection with nature and food also among urban population and from a very young age.

Another material prerequisite for FSP as an alternative food production is the **infrastructure** in and around the cooperative—the roads, electricity, (potable and irrigation) water, canalization and **space** for meetings. Although the respective infrastructure has improved significantly, there are still massive investment deficits and challenges ahead to which the cooperatives as legal entities contribute significantly by representing the interests of gardeners vis-à-vis the city on the municipal level. The city of Narva has employees in the city council who are responsible for negotiating and coordinating different infrastructural modernization projects with the boards of all cooperatives. As almost every inhabitant in the region either owns a dacha garden or is otherwise connected to them, the city cannot afford politically to set aside the interests of the garden cooperatives, despite lacking financial resources. In most cases, the agreements on major investments distribute the costs between the cooperative and the municipality, thus gradually improving the needed infrastructure for food producers. Furthermore, most garden cooperatives own certain common space for community to gather—a cooperative house with seminar rooms, and/or an area for outdoor events. These common spaces serve as a material prerequisite for different formats of deliberative processes.

Last but not least, **physical abilities** and a suitable health condition are an indispensable precondition for actually growing food and doing all the strenuous and regular physical labor. As such, FSP practices literally shape gardeners' bodies, and rhythms of their everyday life—to a much greater extent than, for instance, consumers who opt for a green organic label when purchasing food at the local super market.

4.2. Throughput—Procedural features of *doing* food democracy

We have defined the throughput of food democracy as a procedural feature of *doing* food democracy. This involves the quality of democratic processes around food systems such as transparency and inclusiveness, as well as deliberative capacities in order to sensitize for, discuss, negotiate, develop, and co-create alternatives, build coalitions and oppositions, increase collective efficacy, and coordinate strategies to balance or reshuffle existing power relations. At the heart of the food democracy process is the power of the community to collectively address food-related concerns and develop alternatives through a variety of different interactions, including dialogues, joint value formation and decision-making processes, collaboration, solidarity, and mutual support (social dimension). These interactions occur at different levels—between family members, households, neighbors, cooperatives, and city administration. We also assess the processual aspects of physical, mental, and emotional labor of food production and preparation.

4.2.1. Social dimension

Sharing know-how, experiences, ideas, and values with regard to food (systems) is essential for food democracy as it strengthens the "democracy" aspect. According to Hassanein (2008, p. 290), people in general make better decisions for themselves and others when they regularly and collectively engage in such conversations. In the case of FSP, food is often *the* topic in most of the dacha gardeners' interactions with family, neighbors, friends, and visitors.

Savoring and cherishing delicious homegrown food together while sharing knowledge, culturally specific delicacies and recipes, and discussing the socio-cultural aspects of food is common practice.

One gardener tells us about gardeners paying each other visits on evenings and weekends *(Yevgeniy, gardener, Sillamäe*), showing vibrant **solidarity networks,** in which the **community** aspect is crucial, although the gardens are not called "community gardens". Sharing is a daily practice among most gardeners and involves seeds, seedlings, and manure in the spring, tools and car transport to the city in the summer, and garden produce, juicers, and culinary takeaways from their own kitchens in autumn. As Patel (1991) noted, sharing helps stimulate friendships and creates a pattern of reciprocity and social interactions that foster trust. One gardener describes the coordination of mutual help between neighbors as a shared sense of purpose in the cooperative:*"The neighbors help us out, opening our greenhouses [in the mornings]. We don't come early, we come a bit later, and [..] if we leave without closing them, they will close them for us" (Inna, gardener, Narva).* Such solidarity networks for the common good with regard to the food system are essential for food democracy, according to Hassanein (2008).

Various forms of **participation** and processes of **deliberation,** negotiation, decision-making, and conflict resolution constitute an essential procedural part of food democracy within different communities. In our case study, formal negotiations and inquiries took place mainly in the cooperative meetings (we analyzed the minutes of the AGMs of the Sputnik cooperative), but also through processes such as collecting signatures for certain collective goals, e.g., a free bus service between the cooperative and the city, voicing political demands in the local newspaper (e.g., Sillamäe Vestnik), or strategically organizing support for votes of no-confidence (e.g., writing articles in local newspapers to mobilize opposition to the non-transparent behavior of the Sputnik cooperative's chairman, see, for instance, Karnaihov, 2016). Whilst some cooperatives, especially the smaller ones, seem to have more informal structures, meetings, and joint celebrations (see Figure 4), the biggest cooperative Sputnik, with over 1,100 garden plots, has one official AGM where each member has equal voting rights ("one member, one vote"). However, in the cooperative's day-to-day operations, the board takes most of the important decisions, while the AGM approves the annual budget and action plan. Despite these formal participation processes and the legal distribution of power, some gardeners seemed to lack trust and patience or understanding for lengthy collective processes such as AGMs: *"Nothing was decided, just chatter" (Karolina, gardener, Sillamäe).* Other gardeners were dissatisfied with regard to the cooperative board and felt that their needs were not taken seriously: "*We are not listened to! If we were listened to, things would have been different. Like, we need water here in the summers, they give us no water. And now, in the fall, they give water. [..] It is decided for us. For some reason. [..] It depends on a chairman—the previous chairman, he walked in such boots, over the knee rubber boots, in winters and summers, he was worried. [..] The new chairman [..], little use*" *(Pavel/Nadia/Jelena, gardeners, Sillamäe).* The "over-the-knee rubber boots" refers to a chairman who was physically present in the cooperative, ready to support the gardeners with their day-to-day challenges with construction, sewage, and similar problems, and who did not think he was any better (in comparison to the new chairman sitting behind the table with a stack of papers, as we were told). In contrast to the formal democratic procedures, which were met with less satisfaction and participation from the cooperative members, the smaller and informal formats (e.g., different actions with neighbors and acquintances from the cooperative such as joint apple juice making, mutual help in repairing an elderly widow's fence, car sharing, or women's singing and cooking group) seemed to thrive all the more according to the gardeners. It seems that "voluntary" informal communities provide a strong supportive network for most gardeners, whereas the formal cooperative with its implicit hierarchy and complex (and potentially not comprehensible) decisions remains a rather mistrusted institution.

According to Hassanein (2008), the process of building **self-efficacy** (Zavisca, 2003), as well as experiencing a sense of **collective efficacy**, is essential, both with regard to the personal relationship to food (the ability to determine and obtain the desired produce), as well as, optimally, with some impact on the food system in general, for instance, through engagement with community food concerns (Hassanein, 2008, p. 290, 300–301). As for the more subjective sense of self-efficacy in the case of the FSP practice, this is significant both materially (e.g., tangible garden produce contributing to a sense of (food) security) as well as psychologically (self-reliance, autonomy, and as a satisfaction of having accomplished something meaningful, e.g., "sense of autonomy" as in Zavisca, 2003). Collective efficacy (or lack thereof) is best exemplified by the negotiations that the cooperative (board) regularly engages in with the city administration, for instance, on financial support for cooperative infrastructure (e.g., roads or sewage systems) or on regulatory protections. This remains a challenge, as the dacha cooperative areas are not recognized as residential areas and as such are not protected by regulations (e.g., from the proximity of polluting industry or highway construction, both the case in Sputnik), nor are they automatically entitled to new electricity lines, sewage systems, or other expensive infrastructure projects. In some cases, the cooperative board does not have sufficient power to protect the interests of the gardeners, as the chairman of one cooperative told us. During the drought in 2018, for instance, the following happened: *"The factory is also taking water from there [the river], apparently. And we had no water, can you imagine? Had to water in the greenhouse, everything was burning [due to the heat]. [..] I turned to the city management, and I was told that the industry has priority" (Vlada, gardener, Sillamäe).* Due to the non-residential status of the dacha gardens, economic power elites from the local industry, for instance, are not obliged to take into account the needs of the gardeners, in such manner diminishing the gardeners' ability to "reshuffle" existing power relations. This conflict mirrors the previously voiced discontent by one family (*Pavel/Nadia/Jelena*) about the water shortage in the cooperative during summer heat, and points to the lack of sufficient or transparent communication within the cooperative.

Despite the unfavorable status of a non-residential area, there were massive protests in 2012 against the construction of the new Tallinn-Narva highway. Forms of activism involved lengthy meetings between various cooperative groups, complaints, and formal inquiries to the city council, negotiations with different administrative units, and self-organized collections of signatures.

FIGURE 4
The photo on the **left** shows an article written by a chairwoman of a garden cooperative in Kudruküla, near Narva, about environmental hazards (e.g., illegal waste dumping in nearby forests, as seen in the newspaper photo) and environmental consciousness and citizenship. The photo on the **right** gives a glimpse of the memories of annual midsummer celebrations of the same small cooperative in Kudruküla.

As a result, 3,776 of about 13,000 residents (including children) in Sillamäe signed a letter to the local administration demanding a bypass instead, because they were concerned about pollution of the gardens (and their food production) and traffic noise (Vestnik, 2012a,b). Nevertheless, the new highway was built and the gardeners' concerns were brushed aside. However, the mobilized opposition demonstrated the willingness of thousands of Sillamäe residents to engage in overt political resistance and opposition, defending their vegetable gardens against the proximity of a new polluting highway.

As Leipnik (2015) and Jacobsson and Korolczuk (2020) state, these specific political resistance phases and motives are often devalued and de-politicized as mere protectionist measures by NIMBY or "self-help" groups, according to which the elderly are only concerned about their own survival and act as "service providers" instead of publicly challenging neoliberalism. Yet who decides what intentionality, motives, and awareness are "legitimate" or "suitable" to frame political resistance and opposition as such? Why should resistance and struggle against something perceived as threatening to one's existence (such as the dacha gardens in this case) be anything other than a highly rational, legitimate, and political motive? Scholars have found that in many cases that initially looked like self-help groups concerned with their own wellbeing, the activists were actually practicing citizenship, engaging in "the politics of small things" (Goldfarb, 2006), and forming pluralistic spaces (Goldstein, 2017). Leipnik (2015, p. 86ff) has explored in Ukraine further examples of collective efficacy and control among dacha gardeners who self-organize and successfully coordinate logistics around volunteers guarding their dacha cooperatives in the off-season for crime. Such self-organized civic activism is, according to Císař (2013a,b), the most common form throughout post-socialist Europe and is usually mobilized without the involvement of formal organizations, associations, or the like, making it invisible in most cases.

The last essential aspect, however, is that of **political power**, as Lohest et al. (2019) refer to it with regard to food democracy. As most of the gardeners belong to the Russian minority in Estonia and some of them lost their citizenship status in 1992, they lack a basic democratic political voice and power in parliamentary elections. Such a context, which additionally involved the "rapid economic and symbolic downfall of large social groups, who almost overnight became the 'post-socialist leftovers' accused of inability and unwillingness to adapt to the capitalist order" (Hryciuk and Korolczuk, 2013, quoted in Jacobsson and Korolczuk, 2020, p. 135), resulted in massive frustration with everything that was condemned as political, and is now associated with dirty business, corruption, and unkept promises. Similar to what Jacobsson and Korolczuk (2020, p. 130) described as common among CEE activists, most dacha gardeners explicitly distanced themselves from party politics and drew strict boundaries between politics and the everyday "real" problems on which they resolutely placed their focus. To our surprise, one of the gardeners emphasized several times that the people in Sillamäe are "*actually very literate*", and after our inquiry, she explained, "*People often talk about it [that people here can't read and write]. As if we are not like others, retarded*" *(Grusha, gardener, Sillamäe)*. Together with her friend, she told us afterwards that *"[this] starts now already in the schools. 'You are Russian—you are not Russian'. No need to do so. [..] They [politicians] want to divide people [..] Divide and rule!" (Anna and Grusha, gardeners, Sillamäe)*. As such, general disillusionment and distrust in politic(ian)s are widespread in Eastern Estonia and have been exacerbated by half-hearted integration politics, politically instrumentalized polarization in the

last three decades (Braghiroli and Petsinis, 2019; Makarychev, 2019; Lang et al., 2022), rural exodus (Leetmaa, 2020, p. 28), controversial and emotionally charged debates over the regional oil shale industry (well-paying jobs for locals vs. phasing out a polluting industry, see Michelson et al., 2020), over COVID-19 politics, and now in relation to the war in Ukraine—which is perceived very differently by many local Russians in comparison to Estonians.

In our interviews, we also encountered explicitly anti-political and depoliticized attitudes, many of which also seem to have resulted in a certain disillusionment after the collapse of the USSR and due to increasing polarization: "*One is almost in despair when one sees how far apart people are in the assessment and understanding of the situation. The separation goes through the whole society—through friends, relatives, colleagues, partners etc. [..] The first time in my life, I feel I need to simply withdraw into the private [to the dacha]" (Jana, gardener, Sillamäe).* This shows the delicate and ambivalent role of the dacha—it can serve as a terrain of collective engagement for better food systems and at the same time provide an escape to a private sphere where politics is taboo and everything revolves around marmalade recipes (see also Jehlička et al., 2019, p. 8f). Some respondents reflected almost nostalgically on the Soviet past and seemed accustomed not only to universal welfare guarantees (such as employment and housing) but also centralized power as the political "norm". On these grounds, the aversion to formal (possibly inadequate) democratic structures within the dacha cooperative, and the increasing passivity and reluctance toward public and organized forms of politics are probably the most problematic aspects of this specific form of food democracy in Eastern Estonia and caution against romanticizing Eastern Estonian dacha cooperatives as role models of food democracy.

4.2.2. Material dimension

We consider the material manifestation of food democracy as a process to be primarily the strenuous **physical** (but also mental and emotional) **labor**. Within FSP practice, gardeners engage in physically exhausting and often daily labor—this demonstrates the extent to which their lives are shaped by the cultivation of different food products in their daily practice. If food democracy is not only about reshaping power relations in corporate agri-food systems, but also building alternatives, then this is what the dacha gardeners do on a daily basis. The labor involves not only gardening (e.g., sowing seeds, raising seedlings, watering regularly, harvesting, tending the soil), but in most cases also food preparation and conservation for the winter. Although it is "hard labor", "*nobody wants to refuse [it]. Because not only is it one's own, but also it is something that is deep inside. It is most likely soul [and comes] with great physical effort" (Oleg, gardener, Sillamäe).* Such labor is meaningful and rewarding ("active leisure" by Zavisca, 2003), and differs significantly from alienated wage work, as one gardener further explained to us. However, the time commitment to gardening is immense. One elderly woman told us that if she worked 8 h a day, she produced a sufficient amount of food for herself and her family.

4.3. Output—The *desired change* in agri-food systems

We have defined the output of food democracy as the achievement of *desired change* in relation to food system dysfunctions, and/or, alternatively, the creation of alternative models (that encompass food security, sovereignty, low foodprints, and more). Contrary to Bornemann (2022), who emphasizes the effectiveness and role of institutions and governance, we aim to highlight various other forms of social change that might be overlooked by focusing only on formal and institutional forms of governance and cooperation. Therefore, we focus on the multitude forms of informal collaboration, trust-based networks and governance forms that can also be collectively binding, as well as material aspects such as short food miles, low foodprints, self-determined healthy and nutritious food.

However, a desired output is simultaneously also the same that is needed as an input to continue practicing food democracy—knowledge, skills, access(ibility) to the land, necessary equipment and seeds, because the functioning food systems must also be guaranteed for the future. In the framework, this is depicted with an arrow, illustrating that food democracy is always a dynamic, evolving, circular process, but never a static object. With this regard we join Jacobsson and Korolczuk (2020) who suggest to conceptualize civil society as a "process of building relations and achieving collective goals, rather than a stable object of research or a structure that can be fully captured by quantitative measures" (p. 139).

4.3.1. Social dimension

Acquired and/or increased **knowledge and skills** are a desired output of food democracy. In the case of FSP, gardeners receive the necessary knowledge through childhood gardening experiences, from family members or neighbors—informal ways of knowledge transfer seem to prevail within the FSP practice, as most gardeners told us.

Another desired goal of food democracy, **awareness** of the ecological limits and negative externalities of the dominant industrial food system, also seems to be increasing through the process of FSP and lively exchange, as exemplified by the board member of one cooperative: "*You know what, the only thing I want to say is that on the big farms one cannot manage without pesticides. And this is very harmful. [..] Anything that is big, it cannot manage without pesticides. You won't go around sprinkling vinegar or soap or ash. You must use pesticides. The pesticides, well [..] the residues are staying.. Where? In the soil. Thus…" (Oleg, gardener/board member, Sillamäe).* However, awareness of the negative externalities of "big business" does not automatically translate into an overt opposition to large agri-food systems in general. This corresponds to the findings of Leipnik (2015), Mamonova (2015), Visser et al. (2019), Jacobsson and Korolczuk (2020), and Pungas et al. (2022), who have shown that opposition in post-socialist civil society might be more cautious and often perceived as not "radical" enough (with regard to anti-capitalist or anti-corporate attitudes) compared to their Western counterparts. Yet this is understandable in a context where the left can be associated with the socialist past

immediately. For instance, Visser et al. (2015, p. 14) observe that the "quiet food sovereignty" in Russia "[...] does not challenge the overall food system directly through its produce, claims, or ideas". The reasons for quite strong individualism, further reinforced by political disillusionment, are manifold and originate in the stigma of collectivism as a legacy of the socialist experience, but also in a "preference for individualist or market-oriented problem-solving strategies as well as individualistic notions of agency, which were strongly supported by the post-socialist economic transformation" (Jacobsson and Korolczuk, 2020, p. 129). However, this does not mean that there is no political discontent, resistance to the current agri-food system, or self-organized alternatives to be found. In many cases, they are either more covert, or they simply do not explicitly challenge and publicly condemn the global capitalistic order along with agri-food corporations as a whole.

Community along with **strong support networks** are emphasized by Hassanein (2008), Eng et al. (2019), and Lohest et al. (2019) as essential to food democracy. Gardening helps create a sense of home, belonging, and rootedness in a specific community, while shared food "glues" this specific community together. Relationships within the neighborhood contribute to a fair and generous yet informal distribution of food, mutual aid, and cooperation. As a community, they can collectively address various food related concerns and have an impact on the surrounding food system. One chairwoman of the board told us how she regularly organizes and coordinates solidarity collections of garden produce within her cooperative for a nearby elderly home: *"My daughter works in Narva in the retirement home and there are 150 babuschkas [grandmothers in Russian] and djeduschkas [grandfathers], an old people's home. We very often collect excess vegetables [for them]." (Ivanna, gardener/board, Narva).*

As producers and consumers either overlap or interact regularly in such communities, the recognition of the hard and skilled labor on the producers' side leads to a crucial shift from "farming as merely the selling of raw materials to the food industry to an activity that revalues and reincorporates various elements of food provisioning in a wider social and political meaning" (Renting et al., 2012, p. 290). This then not only results in a subjectively perceived high value of organic and local food, but also bridges the rift between rural producers and urban consumers in the sense that the urbanites are "forced" to engage with agricultural aspects that they would not otherwise be exposed to in the supermarket. This reinforces a spatially and socially close(r) relationship between producers and consumers (as advocated by prosumer approaches, CSAs, etc.) and increases other benefits of food democracy such as esteem, high regard, and trust toward food produce(rs) (Lohest et al., 2019).

As scholars such as Hassanein (2008, p. 291), Petetin (2014, p. 5), and Behringer and Feindt (2019, p. 125) emphasize, (orientation toward) the **common and community good** is another desired goal of food democracy. Concern for the common and community good means that people, as food citizens, are willing to go beyond their self-interest, consider the wellbeing and needs of the community, and recognize its entanglement and interdependence with their own wellbeing (Hassanein, 2008, p. 291). This also includes respecting and taking action to protect the ecological boundaries of food systems. By "community good", Hassanein (2008) refers to all more-than-human-nature as understood by Leopold (1989). Therefore, concern and engagement for the surrounding natural environment manifest themselves in caring and respectful relationships with the more-than-human-nature as well, contributing to the overall ecological sustainability of food systems. One cooperative board member told us of her frustration with people who dump their garbage in nearby forests (instead of paying some fees to bring it to official garbage collection points): "*They come and throw. I'll show you later, I even wrote an article* (see Figure 4). *I'll show you later how the garbage is thrown. People still cannot think with their heads at all" (Mashenka, board member/gardener, Narva).* Mashenka engages in educational work in her cooperative about various hazards of such behavior and apparently imposes "strict regulations" within her own cooperative. In addition, the generosity toward strangers who stop by in the garden cooperatives is also common, as one gardener explains: *"I give away in buckets. When we had an excursion from Tallinn passing by [..] I drove them around whole Sputnik. I brought them apples [..] to the bus" (Grusha, gardener, Sillamäe).*

With regard to **socio-economic resilience**, the output of food democracy on the social level is mostly connected to the certainty that gardeners are able to produce healthy food for themselves and share it with others. Although it is also perceived as "habitual insurance against feared food shortages" (Zavisca, 2003, p. 789), the resilience manifests itself in the sense of autonomy over one's abilities to determine one's food system and guarantee a family's **food security**. According to Zavisca (2003, p. 803), dachas autonomy is associated with peasant self-sufficiency, which we can confirm as several dacha gardeners explained their need for and confidence in the dacha on their childhood experiences on rural family farms. Ehlers (2000) titled his book "Potatoes we will always have" (own translation from German), which describes well the logic and mentality of some dacha gardeners (see also Ries, 2009). Even though the current system makes FSP in the dachas seem financially irrational and the actual food production in the dacha gardens is decreasing continuously, the importance of security and anchor it gives to the people who have lived through volatile times is commonly underestimated, overlooked, and de-politicized. Almost all the gardeners told us how the dacha garden and FSP provided a buffer for their families in the 1990s, when in some cases salaries were not paid, people were laid off, and pensions were cut. The gardeners emphasized the "help and support" (подспорье in Russian) aspect of the dachas, which had proved indispensable throughout the crises-ridden years (see also Pine and Bridger, 1998). For gardeners who experienced socio-economically challenging times during the 1990s ["*It was very hard on us, too. [..] We were not eating any sour cream. [..] We were only buying bread from the shop" (Maria, gardener, Sillamäe)],* it almost feels like a "waste" of their garden space to have a lawn instead of edible plants: *"[..] We were using every corner to plant the potatoes, all that. Now we allowed some luxury to ourselves, and made a lawn" (Maria, gardener, Sillamäe).* This is a rather wide-spread phenomenon (Zavisca, 2003; Pungas, 2022)—lawn, flowers and barbeque areas are slowly replacing the previous potato patches ("*There was no lawn in here. Half of that was all potato. [..] All that was garden beds. Now we [have] less and less..." (Dimitri, gardener, Sillamäe*), yet most gardeners would never consider giving up their

dacha or stop growing food altogether: *"If there was some sort of a collapse, I would have somewhere to go" (Tania, gardener, Sillamäe).*

This aspect is problematic in that dacha gardens are essentially connected to the socio-economic hardship that "forced" FSP practice due to shortages in food supply (Zavisca, 2003; Southworth, 2006; Brade, 2014). This internalized need for a safety net after experiencing various economic crises has been cited as one of the habitual (or subconscious) motives why many gardeners continue the FSP practice. However, such motives do not make it a globally applicable or desirable model for food democracy, as can be seen even among the younger generation. In addition to the lack of time to actually grow food, the younger generation prefers the "green zone" (lawns and recreational area instead of vegetable patches) simply because they have not experienced and internalized the multiple crises (in which dacha food gardens provided existential food security) as the older generation has. Hence, they do not assign value to the dachas as an economic safety net, but simply as a recreational space in the fresh air and nature, which leads to "generational deskilling" in food production (Booth and Coveney, 2015, p. 24). Furthermore, as there are not many jobs in the region, younger generations have moved to the bigger cities or capitals where they have become accustomed to buying food from supermarkets. When we asked some gardeners about their grandchildren and if they come to the gardens to help, the response was laughter: "*What a kind of question is that! They are city folk. They don't like coming here. They like it better in the city" (Inna, gardener, Narva).*

In addition, **the psychological wellbeing** and (mental) health benefits resulting from engaging with and spending time in nature are perhaps one of the primary motives for FSP, as expressed by the gardeners: *"I rest in here. Even if there is a lot of physical work sometimes, it is like rest for me—the headache, if I have it, is gone, everything is gone, it simply becomes good" (Karolina and Yevgeniy, gardeners, Sillamäe).* (Ehrenberg, 2009, quoted in Müller, 2012, p. 3) has described the garden as a refuge for the "exhausted self" that slows things down and allows for experiences with temporal cycles, which our findings confirm. This also demonstrates the deep human need to be an active (also political) subject in one's own life, to take action and be involved in the immediate, concrete surrounding nature, to which self-determined food grown in one's own garden and cultivated in nature contributes greatly. Such motives and benefits of the gardening have been further pointed out by various scholars such as Zavisca (2003), Ančić et al. (2019), Pungas (2019, 2020), and Sovová (2020), among others.

4.3.2. Material dimension

Food democracy is not only about the agency and empowerment of food citizens, but also about their actions actually having an impact (Hassanein, 2008, p. 297), a concrete physical output such as **self-determined fresh and healthy food**. In the case of FSP, gardeners grow organic food for themselves, share it with others, and prepare preserved, canned culinary products for the winter (which are also common as presents for friends and family). Various products are dried in the gardens to last throughout the winter (garlic), or they are stored in the cellar (potatoes, carrots, apples) or freezer (berries). In our case study, the gardeners actively practicing FSP produce between 30 and 90% of the fresh vegetables, seasonal fruits, and berries that they consume, which—as a rough ratio—is pretty common for the CEE region (see also Smith and Jehlička, 2013; Sovová, 2015, p. 17; Pungas, 2019, p. 80; Sovová, 2020, p. 128–130). In the season, some rare fruits can occasionally be bought in the supermarket (such as peaches and watermelons), but the rest comes from the garden and neighbors: *"From June to September, we buy nothing from the shops. [..] July, August, September—we don't go there at all. We don't buy vegetables, we have our own" (Tania, gardener, Sillamäe*). FSP in the form of dacha gardens thus contributes to **food sovereignty** by providing almost the entire city with a diverse and healthy food supply that would otherwise not be affordable or available to most people. *"[..] Or they are selling, and people are buying, so [the one] who doesn't have a dacha, this 0.9%, right, they are buying from the same gardens, from the same grandmothers, they still prefer the same cucumbers, tomatoes, strawberries… Anyway. So, all of us are eating the natural products. The whole town" (Lyudmilla, gardener, Sillamäe).* Self-assessed food self-sufficiency is therefore not only symbolic, but very real and demonstrates an essential and concrete output of food democracy. Garden produce is also important for those struggling with meager pensions, as it provides them with some additional income, thereby increasing their economic viability (see Figure 5). Most elderly people would by no means be able to afford organic and expensive food commodities in the supermarket, yet, as retirees they do possess sufficient time for FSP practice. *"What I want to say is—of course, thanks to this soil, for example the strawberries, the tomatoes, and the cucumbers that I sell now, I don't take [money] from the ATM in the summer. That's how I save a bit" (Olga, gardener, Sillamäe).*

Ecological benefits and environmentally friendly agricultural practices are the last yet one of the most important goals of food democracy. The ecologically desirable outcome of food democracy involves reducing foodprints, shortening food miles, preserving biodiversity, enhancing soil quality, and closing feedback loops (Sundkvist et al., 2005). If, for instance, the ecological footprint of food is to be reduced at all stages of the food system, from production to distribution, consumption and disposal, FSP gardeners offer a very promising model. As Smith and Jehlička (2013) have emphasized with their concept of "quiet sustainability", FSP practices involve beneficial environmental (and social) outcomes, which are not voiced by gardeners as explicit environmental or sustainability goals. The self-grown food is almost always pesticide-free, organic, and grown without any mineral fertilizers, as our respondents emphasize. The care for the surrounding environment and gardening work that to a large extent includes agro-ecological methods was voiced as "common sense" by most gardeners. However, in most cases, the primary motive is not an ecological concern, but plain self-interest (organic, healthy, tasty food) as only clean, pesticide-free garden produce is the "real" food for the gardeners. One gardener angrily responded to our question about the use of fertilizers: "*There's already enough fertilizer in the store, in the products we buy there" (Oksana, gardener, Narva).* In our case study, we discovered the following: all gardeners we conducted interviews with composted, and many bought or exchanged manure (horse, cow, or chicken manure) from nearby farmers, used ash and eggshells to improve nutrient cycles, white mustard as a green manure, and liquid nettle or garlic sprays

FIGURE 5
The photo on the **left** shows a rather large-scale preparing of pickled vegetables by an elderly couple on their dacha; the **middle** photo two women selling their garden produce at the street between Narva and Narva-Jõesuu to earn some extra money; the photo on the **right** shows a potato harvest at a dacha garden in autumn (photo by the author).

as a self-made organic pesticide. These environmentally friendly agricultural practices seem to have been born out of a simple desire to grow healthy, "real" food and ensure the long-term fertility of the soil in their gardens.

However, this is where the aspects of learned intentionality and awareness (Barnett and Land, 2007; Barnett, 2008) come into play. The food gardeners on the dachas seem to be worthy of less appreciation simply due to their—apparently insufficient, wrong, partial, egoistic—motives that lead them to agro-ecological gardening practices. But does it make one agro-ecological food practice more valuable when it is motivated by concerns for global sustainability, and less valuable if behind its practice is primarily a simple and "selfish" interest in eating delicious food and providing one's family with healthy (pesticide-free) garden produce? Furthermore, do different motives and intentionalities make these practices necessarily less political? If we do not understand politics in the narrow sense of revolting on the streets, demanding more sustainable agri-food systems, then are not all agro-ecological practices political activities in the sense that they resist corporate agri-food systems, food commodification, and manifold negative externalities while quietly building and cultivating alternative practices? (Jehlička et al., 2019; Visser et al., 2019; Jacobsson and Korolczuk, 2020).

5. Conclusion

We have explored the wide spectrum of diverse properties that according to various scholars such as Hassanein (2008) and Bornemann (2022) as well as concepts of participatory, deep, strong and constitutive democracy are essential for a food democracy. Furthermore, we have reflected on the difference between classic "Western" civil society food initiatives and the forms of on-the-ground collaboration within the FSP communities in CEE that might be overlooked due to their difference. It seems that "Western" examples emphasize more the aspect of "democracy" (different forms of governance and their efficiency, decision-making procedures, transparency, regulations, and more) when discussing food democracy, whereas in post-socialist countries, food democracy seems to revolve around food to a much greater extent, leaving a multitude of subtle and covert forms of "doing democracy" more in the background, as also shown in our case. With our suggested framework, we have first demonstrated the need for both, a social and a material dimension to food democracy (respectively as input, throughput or output). Second, we have added further features to our production-oriented framework that we consider crucial when exploring the exercise of food democracy among communities that also produce food themselves (and whose primary focus is not on coordinating AFNs or organizing political demonstrations for better food systems, as is common in more consumption-oriented frameworks). However, in analyzing our empirical data on FSP, we also encountered aspects that differ substantially from most examples of food democracy already discussed in Western scholarship. These aspects make FSP in CEE a more regionally specific form of food democracy that would most likely not be replicable in this form anywhere else.

McIvor and Hale (2015) has cautioned against an overemphasis on social capital or civic skills, as these alone, cannot revitalize democracy in modern societies, challenge the dominance of the industrial agri-food system, or achieve food justice. A more radical way of thinking and practicing, therefore, must first acknowledge that the spatial restructuring of food production and consumption "will not, by itself, undo structural injustices or inequalities" (McIvor and Hale, 2015, p. 6). The lack of such explicit and collective questioning of unjust power relations along the food chain, as well as the tendency toward individualized coping strategies and alternatives in food provisioning, are in our view the main "weakness" of food democracy as exemplified in our case study. More importantly, romanticizing local sporadic food communities runs the danger of obscuring forms of domination within and between such spaces (DuPuis and Goodman, 2005), which we sought to uncover in our case study. However, as Jacobsson and Korolczuk (2020) assert, it is crucial to extend our understanding of political engagement to include a diverse range

TABLE 1 List of cited interview persons.

	Interview partner	Birth year	Professional educational background	Last career positions	Location	Current status
1	Oleg	1951	Higher education, sport trainer/teacher	n.a.	Sillamäe, Sputnik	Board of the cooperative
2	Lyudmilla	1964	Vocational secretary school	Secretary	Sillamäe, Sputnik	Secretary in the cooperative
3	Nathalia	1952	Technological school	n.a.	Sillamäe, Sputnik	Secretary in the cooperative
4	Elena	2002	High school	High school	Sillamäe, Sputnik	Highschool pupil
5	Magdalena	1976	Vocational high school (nurse)	Senior operations supervisor	Sillamäe, Sputnik	Home for people with special needs
6	Valteri	1939	Vocational school (Energetics)	Shift supervisor at the Oil shale power plant	Sillamäe, Sputnik	retired
7	Pavel	1974	Technical vocational school	Factory worker	Sillamäe, Sputnik	Quarry
8	Nadia	1945	n.a.	Seller / commerce	Sillamäe, Sputnik	retired
9	Jelena	1984	Higher education (teacher, pseech therapy)	Teacher (Russian language and literature)	Sillamäe, Sputnik	teacher
10	Vlada	1951	Master in radiotelevision	Uranium factory in Sillamäe	Sillamäe, Druzhba	Board of the cooperative, retired
11	Sergei	1945	Middle education, electromechanics	n.a.	Sillamäe, Druzhba	retired
12	Tania	1968	Technical college (Chemistry-technology with specialization in oil refinement industry), later IT-College (IT specialist)	Lab assistant at the institute	Sillamäe, Sputnik	IT specialist at the library
13	Karolina	1968	Higher education	Teacher in high school (history)	Sillamäe, Sputnik	employed (teacher)
14	Yevgeniy	1962	Polytechnical institute (middle education, energetics)	Oil shale power plant, n.a. to specific position	Sillamäe, Sputnik	employed, n.a. to specific position
15	Anna	1946	n.a.	Operations manager	Sillamäe, Sputnik	retired
16	Grusha	1946	Higher education (Industrial heat power engineering)	Oil shale power plant, n.a. to specific position	Sillamäe, Sputnik	retired
17	Ivanna	1944	Vocational school (engineering)	Oil shale power plant, n.a. to specific position	Narva, Olgina	Board oft he cooperative, retired
18	Anushka	n.a. (between 65-70)	High school	Warehouse in Kreenholm fabric factory	Narva, Kulgu	retired
19	Mashenka		Vocational school (Postaö service and film control)	VARIOUS jobs (hairdresser, social worker, Kreenholm fabric factory)	Narva, Kudruküla	Board of the cooperative, retired
20	Kristina	1941	Higher education	Accountant	Narva, Kudruküla	retired
21	Vasil	1948	n.a. ("standard")	Railroad worker (logistical operations)	Narva, Kudruküla	retired
22	Inna	1948	Higher education (librarian)	Director at the library at Kreenholm facric factory	Narva, Kudruküla	retired
23	Oksana	1974	High school	n.a.	Narva, Kudruküla	Seller, poller for statistical surveys
24	Irina	1938	Vocational school (nurse)	nurse	Sillamäe, Sputnik	retired
25	Maria	1951	Middle education	Greenhouse, Caretaker	Sillamäe, Sputnik	retired
26	Dimitri	1952	Technical mining school	Kolkhoz, quarry	Sillamäe, Sputnik	retired
27	Jana	1959	Higher education	Environmental NGO / education in Sillamäe	Sillamäe, Sputnik	retired

of activities aimed at social change through which marginalized classes "attempt to collectively challenge the status quo—even if for various reasons those engaged reject the label of "political" activism. It is equally important to go beyond the limited vision of the political sphere as associated with the institutions of power, and to look at how power circulates in society through everyday encounters and exchanges" (Jacobsson and Korolczuk, 2020, p. 131). As we have shown, FSP gardeners largely shape and constitute their own food-related practices. However, democratic power, control and governance over the means of food production exist only with regard to FSP in dacha gardens and do not extend to commercial supermarkets, the transnational food system, or national food politics in general. Rather, the political dimension of FSP practice occurs "through the ordinary" (Neveu, 2015, p. 144) and is therefore comparable to Scott (1985) concept of mundane and implicit "everyday resistance". We draw on the analysis of Jehlička et al. (2019) and to the concept of "quiet food sovereignty" by Visser et al. (2015) to argue that the "quiet everyday resistance" (Pungas, 2019, p. 85) against market domains in the current food system, as well as the whole spectrum of collective and democratic practices in dacha gardens, also constitute an exercise of food democracy. If food democracy calls for giving more (decentralized) power to all actors involved in the food chain and for engaging citizens more in the management and governance of the food systems that surround them, then FSP in the dacha gardens provides quite a unique example of these demands. The gardeners possess a level of agency and autonomy over their immediate food systems that would be unimaginable in Western European cities. As such, we hope to have provided some insight into what may seem to be ambiguous (or even "unpolitical") forms of food democracy among food gardeners in Eastern Estonian dachas. Our project is exploratory rather than comprehensive; it certainly does not capture the full complexity and diversity of all political and social facets. What we *have* demonstrated, however, is sufficient evidence that food democracy in Eastern Estonian dachas both suffers from context- and case-specific (e.g., formal and ideological) democratic deficits yet is well positioned to address the manifold negative repercussions of the industrial agri-food systems while creating alternatives through a variety of democratic practices such as informal, collaborative, and collective procedures around food.

However, for true food democracy to flourish and have a greater political impact in a region like CEE, we need both: the "old", traditional FSP practices (as well as the practitioners and their knowledge) need to be acknowledged, valued, protected, and supported (lest they "die out" as "irrational, backward remnants of the Soviet era"), yet all consumers—whether they are dacha gardeners or not—should also be encouraged to become more involved in food politics. Collectively *re*figuring the current power relations within food systems would mean calling for more inclusive and transparent participation mechanisms to contribute to democratic and sustainable food systems. Furthermore, these demands should include political and financial support for the full spectrum of AFNs (formal and informal), organic agriculture in general (to make it affordable for all), as well as all political institutions to address and reduce the negative socio-ecological externalities of the current agri-food system. As such, we advocate bringing together the older generation of rural and marginalized FSP practitioners with their valuable know-how, and the more youthful, urban and "fashionable" food activists in order to build bridges and promote a mutually beneficial exchange of ideas and experiences for the sake of better food systems in general, and stronger food democracy in CEE in particular.[6] Jacobsson and Korolczuk (2020, p. 136) advocate such a strategy of cooperation and relationship-building between people with very different social positionalities (all are affected but have different vulnerabilities or occupy different strategic positions), which Brenner et al. (2012) refer to as alliances between the "deprived" (impoverished and unemployed) and the "discontented" (disregarded and constrained). However, as Jacobsson and Korolczuk (2020, p. 137) warn and Pungas and Kiss (2023) confirm, these alliances are fragile and could be hijacked by populist and right-wing anti-democratic sentiments, and therefore require a high degree of contextual sensitivity. Nonetheless, we see this plurality of experiences and know-how about food systems as a unique opportunity for all citizens concerned with food to collectively cultivate something that is perhaps even more important than home-grown vegetables, namely, to collectively engage in complex processes of collaboration and deliberation that are inherent in all democratic processes.

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. The patients/participants provided their written informed consent to participate in this study. Written informed consent was obtained from the individual(s) for the publication of any potentially identifiable images or data included in this article.

Author contributions

LP developed the interview guides, collected all the empirical data during the fieldwork 2019-2022 (including the photographic material), and conducted all the interviews. Furthermore, she conceptualized and developed the idea for this manuscript, drafted the first framework and wrote most parts of the initial draft. She is the sole author of the finalized and submitted manuscript as well as of all the extensive revisions and resubmitted article.

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6 The first attempt to build alliances between these two groups was made in September 2022 by Pungas and Kiss (2023) with transfer-activities in the field.

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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.

Publisher's note

Supplementary material

The Supplementary Material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fsufs.2023.1052298/full#supplementary-material

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Expanding food democracy: a perspective from the United States

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Food democracy can be a tool to combat capitalist hegemony in the food system and increase citizen's knowledge about alternatives to obtaining food from concentrated food businesses. But for food democracy to further democratic goals, it needs to help create these alternatives as transformational spaces, seek genuine inclusion of underprivileged people in food system governance, and ensure that public forums for deliberation about the food system are active and respected by public institutions.

KEYWORDS

deliberative democracy, corporate power, food sovereignty, markets, right to participate

Introduction

Democracy is threatened around the globe by authoritarian governments, lack of respect for the rule of law, polarization of public opinion, disinformation and criminalization of dissent. In the food system, corporate power continues to grow with mergers and acquisitions in every sector and the intrusion of corporations into domestic and international governance forums. Against this backdrop, food democracy seems on one hand to be unattainable, but on the other hand an opening into restoring more democratic processes in domains that directly affect every person every day. This paper considers diverse understandings of food democracy and what it requires, threats to achieving it, and its connections with food sovereignty. I argue that food democracy lacks a comprehensive theory of change at present; but when combined with genuine alternatives for obtaining or producing food, egalitarian spaces for public deliberation, and a rights-based approach to inclusion, it is a strike against one of the more egregious consequences of neoliberalism, a path to citizen empowerment and an opening to begin envisioning a better way of living on our planet.

The meanings of food democracy

In a 2004 essay, "Food democracy and the future of American values," Neil Hamilton plumbed the connections between food and democracy in the United States. Only 18 years later, his confidence in shared American values and democracy seems to be steeped in the innocence of an era before Trumpism when many people in the US took democracy for granted, not realizing how fragile it is nor how easily it can be destroyed by disinformation and the erosion of belief in the public good. Yet Hamilton described clearly how corporate interests, which he called "Big Food," threatened the ability of many people to access high-quality food. That threat has only grown since 2004 with rising inequality within and between countries and the concentration of food and agricultural corporations into a handful of companies in nearly every sector of the food system (Howard, 2021). With their increased market power from mergers and acquisitions, corporations have flexed their

political muscles too. They have encroached on domestic and international policy forums, most notably the UN Food Systems Summit of 2021 (Canfield et al., 2021; McKeon, 2021).

Hassanein (2008) suggested key dimensions of food democracy, which have largely been upheld in subsequent literature (see for example Cifuentes and Gugerell, 2021; Resler and Hagolani-Albov, 2021):

- Collaborating toward food system sustainability through collective action and meaningful participation
- Becoming knowledgeable about food and the food system
- Sharing ideas about the food system with others
- Developing efficacy with respect to food and the food system
- Acquiring an orientation toward the community good

The final dimension is worth emphasizing, given dimmed public understanding of the "common good" (Reich, 2018) and adulation of billionaires and celebrities who do very little for others unless they can take a tax write-off. Hassanein's dimensions are aligned with many other statements in the literature about the meaning of food democracy and rest on a recognition that food and food system governance are public goods, so the public should be able to exercise control. In one of the earliest academic pieces on food democracy, (Lang 1999:218) wrote:

> I use the term food democracy to refer to the demand for greater access and collective benefits from the food system… From the political perspective, it makes sense to see the dynamics of the food system as a titanic struggle between the forces of control and the pressure to democratize.

Specifically, the "forces of control" to which food democracy advocates object are corporations that manage food and agricultural distribution, trade and sales (Norwood, 2015; PANNA, 2015). But who is "the public" who should control food systems and who is demanding greater access and collective benefits? This vagueness is an example of the under-theorization of food democracy. In this paper, I seek to identify a few added dimensions which seem necessary.

I agree with (Tilzey 2019:203) that food democracy needs to "widen its remit to address 'economic' unfreedom, in other words to subvert capitalist social-property relations" to become a reality and to "[abrogate] the three supporting pillars of capitalism (primitive accumulation, absolute property rights, market dependence)." Tilzey is referring to what he calls 'substantive' food democracy, which he contrasts with 'formal' food democracy that simply focuses on political freedoms. I think that most proponents of food democracy in the US do not see it as radically opposed to capitalism, but believe it can exist within a capitalist economic system. Yet (Tilzey 2019:206) argues that,

> …[most initiatives in food democracy] merely subsist in the interstices of capitalism and may, indeed, conform to the process of neoliberal 'de-statization', whereby the state-capital nexus encourages the devolution and divestment of former state responsibilities to community-led schemes.

That is, food democracy efforts initiated by community organizations may relieve state governments of their responsibilities to govern in the interests of their citizens. Some food democracy schemes, such as local food policy councils, are a collaboration between state or municipal government and citizens' projects (Bassarab et al., 2019), and many of these have been effective in making government more responsive to citizens' wishes. But most other initiatives that allow greater public control over food are independent of government.

In the US, most people shop at supermarkets, supercenters, and other large grocers; these accounted for 92% of sales in 2019 (ERS, 2022a). These stores offer an illusion of choice with a mind-boggling array of products, but 80% of the foods bought regularly are produced by Kraft Heinz, General Mills, Conagra, Unilever and Delmonte (Lakhani et al., 2021). Products from large corporations that are distributed around the world tend to have high environmental footprints; this is why many consumers are willing to pay more for local or certified sustainable products, or products from independent companies guaranteeing that they adhere to strict environmental or labor standards. Furthermore, retailers are concentrating rapidly, independent grocers have a very small proportion of total food sales, and Walmart alone takes 30% of the market share of the top 10 retailers (ETC Group, 2022). In the US, farmers only retain 14.5 cents of every food dollar (ERS, 2022b), with the rest going to a 'marketing share'. What this means is that money generated from the sale of food does not stay with producers nor in the communities where food is produced, but instead pads the salaries of numerous intermediaries between the producer and final purchaser and the managers of transnational companies. These consequences would hardly be expected from real democratic decision-making about the food system; yet they are the logical result of capitalism, which rewards those who accumulate monetary power and resources of all kinds with even more financial power and resources.

I argue that food democracy requires the existence of alternative ways of producing and obtaining food beyond the outlets owned by the largest corporations, and must try to establish and maintain alternative social innovations (Fernandez-Wulff, 2019). Alternatives to corporate food include hunting and gathering, food commons where food is produced collectively and profits are shared among producers, food sharing, community-supported agriculture schemes, farmers' markets, food cooperatives that adhere to the cooperative principles espoused by the International Cooperative Alliance, and widely accessible means of producing one's own food (e.g., land, seeds, and water). People participate in social innovations for multiple reasons, however: they may simply want fresher and higher quality food and have little interest in food democracy or other purported benefits (see for example Pole and Gray, 2013).

In addition to alternative formal and informal markets, food democracy needs the existence of egalitarian, inclusive public forums for deliberation about food policies; an engaged public; institutions that respect public voice; and widespread knowledge about the current status of the dominant food system (e.g., how food is produced, the environmental and sociocultural consequences, who pockets the profits, who makes the policies). Given this stringent list of requirements, it is probably safe to say that food democracy does not exist anywhere at present except in small localized contexts. Opportunities to deliberate about food system alternatives are excellent for informing the public about the consequences of the dominant system and may be sufficient to motivate change in a small

area, but they are not sufficient to change the system. Yet as an ideal or aspiration, food democracy can be powerful and provide an opening wedge to work on democratization of other realms of life.

Food democracy is linked with food citizenship, agroecology, commons, and the right to food in that all oppose the commodification of food. According to some proponents, it rests on awareness of how human rights in the food system have been compromised by corporate control.

> Food democracy emphasizes fulfillment of the human right to safe, nutritious food that has been justly produced. It means ordinary people getting together to establish rules that encourage safeguarding the soil, water, and wildlife on which we all depend. It is also pragmatic politics built around the difficult lesson that food is too important to leave to market forces—that we all have a right and responsibility to participate in decisions that determine our access to safe, nutritious food (PANNA, 2015).

Barriers to food democracy

The most fundamental barrier obstructing food democracy is the hegemony of capitalism, particularly neoliberalism with its excessive emphasis on "business-friendly" practices, and the concentration of market and political power in agribusiness that it facilitates. Corporations have disincentives to democratize their decision-making, as this would reduce profits to shareholders. Capital accumulation processes result in environmental degradation, poverty, social exclusion and inequality, thus defeating many of the aims of food democracy to be inclusive and work toward greater food system sustainability. For example,

> Food democracy ideally means that all members of an agro-food system have equal and effective opportunities for participation in shaping that system, as well as knowledge about the relevant alternative ways of designing and operating the system (Hassanein, 2003:83).

But corporations have tried mightily to prevent citizens from having relevant knowledge about their practices (e.g., laws to prevent journalists' access to confined-animal feeding operations or mandatory labeling of genetically-engineered food), and have resisted efforts to find alternative ways to design and operate the food system. Corporate concentration of markets and intrusion of corporations into food system governance are transnational phenomena, with growing corporate influence in the United Nations as well as in domestic policy (Seitz and Martens, 2017). While specific corporate practices have sparked widespread resistance, the pervasive and growing corporate control of the food system has not.

A second barrier to food democracy internationally and in most countries is lack of public access to land and other resources needed for food production. Producing one's own food is the most direct way to eschew capitalist markets. International land grabs (large-scale land acquisitions) have effectively stolen land from communities lacking secure tenure and governments that were looking out for their interests (Müller et al., 2021). But even in purportedly democratic countries, land for beginning and socially disadvantaged farmers is in short supply. Given the centrality of private property to capitalism, this barrier is very difficult to overcome, although many people are experimenting with forms of collective ownership and farming.

A third barrier to food democracy is the lack of public forums for deliberating food issues. Food policy councils are often held up as a way to achieve food democracy; but their existence depends on champions in local or state legislatures, and the extent to which they are representative of people in their regions depends on how they are formulated. There is a consistent problem in food policy councils of under-representation of minorities and low-income people (Bassarab et al., 2019). But these are the people whose right to food is most likely to be violated; and a rights-based approach mandates that they should be at the center of decision-making about the food system, not tokenized or on the periphery. Even where a representative food policy council exists, it may not have authority or funds to implement its decisions. Along with the lack of public deliberative forums is public apathy, time constraints that disallow participation in deliberation [perhaps due to the "overworked American" phenomenon described by Schor, 2008], and a marked preference for convenience in how people get their food. Food democracy requires an engaged public, willing to invest extra time into learning about and finding solutions to problems. Few people in the US are willing to allocate that time, preferring to go with "easier" alternatives rather than learn about and participate in social innovations.

Threats to food democracy have arisen in the context of the erosion of democracy in government, and food democracy cannot thrive in an undemocratic society. Varieties of Democracy (V-Dem) documents a frightening rise in authoritarianism between 2011 and 2021, with increased use of polarization and disinformation (Alizada et al., 2022). While the US prides itself on being a democracy and has often justified interventions abroad as "bringing democracy," other countries are critical of the health of US democracy (e.g., King, 2022; Tharoor, 2022) and it has been designated as a "backsliding democracy" by the International Institute for Democracy and Electoral Assistance (Berger, 2021). People in the US are not accustomed to working for democracy; we have been told that we already have the best democracy in the world and—at least well-to-do white people—have taken it for granted until recently.

Connections between food democracy and food sovereignty

Food democracy and food sovereignty both emerged in the 1990s in response to increasing corporate control of the food system, but they have distinctly different foci:

> Food sovereignty mainly focuses on producers by advocating for sustainable production methods and the right of small producers (e.g., peasants, family farmers, etc.) to control their production; while the focus of food democracy lies on the reinforcement of the role of citizens to democratize the food system (Cifuentes and Gugerell, 2021:1,062).

Inclusive deliberation about food system issues should include the whole range of people who are affected by policies. This includes

producers, citizens, small businesses, and marginalized groups such as Indigenous people (Anderson, 2008).

Food sovereignty has a wider scope than food democracy, moving well beyond participation to encompass production, what kinds of food are consumed, and human rights:

> Food sovereignty is the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems. It puts the aspirations and needs of those who produce, distribute and consume food at the heart of food systems and policies rather than the demands of markets and corporations (Nyéléni.org, 2007 Declaration of Nyéléni).

A right to participation in food systems and policies is suggested by food sovereignty's principle to localize control. But does "local" control in fact result in healthy and culturally appropriate food, produced through ecologically sound and sustainable food? It may simply allow whomever has most power in the local food system to continue ensuring that their own interests are met. The right to participation in public affairs is in the 1945 UN Declaration of Human Rights, and its application to small-scale farmers and other rural people was spelled out explicitly in the UN Declaration of the Rights of Peasants and Others Living in Rural Areas (Alabrese et al., 2022).

Food sovereignty has its strongest proponents in the Global South where many people have felt the ruthless grip of corporate power over seeds, land, water, food and prices. Formerly colonized peoples are much more likely to see "sovereignty" as worth fighting for; others may be confused about what food sovereignty means and who would become sovereign (Edelman et al., 2014). Food sovereignty that re-imagines the capitalist relations of production, distribution and consumption that impede food democracy is equally needed in the Global North. However, corporate power wears a velvet glove for dealing with the most privileged populations, disguising control as offering greater choice. Lack of control over the food supply is an early warning sign of lack of control over other essentials.

What can food democracy add to food sovereignty? For people living under conditions of privilege, recognizing its absence and fighting for it is a warm-up to struggling for other freedoms which are under threat but not yet widely recognized as endangered. And, given confusion over the meaning of food sovereignty among wealthy and privileged people, food democracy may be a more comprehensible and palatable goal which can be achieved, at least in an emerging way, through social innovations such as food policy councils, cooperatives, and community-supported agriculture. Participating in these initiatives allows people to take an active role in their food system and (in many cases) enjoy healthier food with purchases that help to build stronger local food systems. Given that these initiatives embody many of the goals of food democracy, it is puzzling that more people do not participate in them.

Food democracy might also enhance food sovereignty by adding a stronger demand for inclusive participation, especially of marginalized and otherwise disadvantaged people who do not reap the benefits of the current food system. This is more important than *localizing* control, given that privileged people within a locality can thwart any significant re-orientation of the food system to meet the full human rights of people without privilege and voice. Finally, food democracy emphasizes the need for better education and consciousness-raising about the food system (Hamilton, 2004) to overcome the barriers to a just and sustainable system.

Conclusion

Food democracy is more important than ever now, with increasing corporate control of the food system and the hollowing-out of civic democracy. But food democracy is shallow unless people have options for obtaining food outside the concentrated capitalist markets where most buy food now and spaces, respected by public institutions, for public deliberation about their food system. I propose that the next stage of food democracy is the intentional centering of the people whose right to food and right to the resources necessary for growing and marketing food are not respected, protected and fulfilled. This will enable food democracy to contribute to civic democracy that recognizes the rights of all people.

Data availability statement

The original contributions presented in the study are included in the article, further inquiries can be directed to the corresponding author.

Author contributions

The author confirms being the sole contributor of this work and has approved it for publication.

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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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Food justice in public-catering places: mapping social-ecological inequalities in the urban food systems

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Departing from reflections and observations raised by Food Policy Councils (FPCs) within North America specifically, this article explores the complex material, discursive, and governance aspects of food provision on the urban-regional scale by highlighting recent accounts of public food provision within state-funded public-catering places in Germany. Based on a fieldwork in Southern Germany, and grounded in a methodological approach guided by participatory action research (PAR), participatory observation, feminist GIS, and 17 interviews with different actors within the regional food systems involved we would like to form the basis for pushing these new approaches further toward more food democracy and food justice as we are elevating the key factors and rewards, but also the downsides and challenges of food provision in public catering places regarding social-ecological inequalities. In doing so, the global intimacies of the urban food system on the local scale, their different modes of inclusions and exclusions, and their intersections of inequalities are unpacked by also shifting the focus to the economic and political entanglements at stake within the global sphere of food provision. By amplifying how producers, meal providers, and consumers within the urban food systems perceive (and perhaps contradict) issues of food justice and by coalescing their perspectives about local food system transformations and desires toward food justice and sustainability, not only the challenges at place but also the promises of hope within public-catering places are illustrated.

KEYWORDS

food justice, Food Policy Councils, social inequalities, public catering, urban food systems, feminist mapping, participatory action research

1. Introduction

Food is more than solely a lifestyle issue. In the aftermath of Covid-19 and times of inflation (and not only then), there are shortages of delivery rates, there are climate-change-induced agricultural challenges in fostering healthy food, and accessible food is distributed unequally. Even in welfare states such as Germany, a recent study highlights that 3.5 million persons are affected by "material food poverty" which is connected to "social food poverty" that excludes people from participation in social life [WBAE (Scientific advisory board on agricultural policy, food and consumer health protection), 2023, p. 1]. This situation leads to a whole set of subsequent questions: which modes of food production, processing, and distribution can foster a more just access to and sustainable transformation within the current food system? How can we pay better attention to the underlying inequalities and problematizations, when food is

produced, processed, and consumed within the structure of global capitalism? And how can consumers gain more decision-making power over the food system? These questions are raised by food democracy and food justice theorists and by the rising FPC movement. Departing from these reflections and observations, this article explores the concept of food justice and its interlinkages with food democracy in relation to the debate about sustainable food transformations in public-catering places. On the basis of fieldwork in public school food providers in Southern Germany, these FPC-inspired interlinkages of food justice (Alkon and Norgaard, 2009; Reese and Garth, 2020) and food democracy (Hassanein, 2008; Baldy and Kruse, 2020) will be pushed further by elevating the complex material, discursive, and governance aspects of food provision at the urban-regional scale. By highlighting the recent accounts of public food provision within state-funded public-catering places in Germany, not only the key factors and rewards but also the challenges of providing food in public catering places will be illustrated by back bounding them to the more recent debate on transitions toward sustainable food systems (Baldy and Kruse, 2020; Stein et al., 2022).

Methodologically, our study is based on the participatory action research (PAR) approach (Fals-Borda, 2000) and developed in cooperation with the FPC movement in the federal state of Baden-Württemberg. On the basis of the analysis of 17 qualitative interviews with different actors in the value chain relevant to the issue of school catering, including members of the university, city administration, the FPC, parents' association, and pupils and a workshop with the German-wide FPC network, the argument is that the means to facilitate a more just and sustainable access to school food on the ground are still underexplored and that actual spaces for democratic participation to foster such developments are missing. By mapping the different scales of food provision, moments of food consumption, and levels of food governance, five key factors are developed, which are vital to foster further discussions about local food system transformations toward food justice in contested places such as public catering institutions in general and public-school canteens in particular.

2. Problem definition: nutrition, social-ecological inequalities, and school catering in Southern Germany

The global food system contributes around 30% to global greenhouse emissions and has thus a huge impact on climate change (Rockström et al., 2020; Crippa et al., 2021). The high incidence of child labor in Ghana, ongoing precarious working conditions in tomato greenhouses in Spain, and exploitative working contracts deployed in meat factories in Germany throughout the last decade highlighted that the current food system has not only a huge ecological but also an enormous social footprint which leads to rising social inequalities between "privileged and cash-poor customers across the globe" (Friedmann, 2005, p. 258). These and other troubling dimensions of local–global food production pushed advocates for food justice to reflect and rethink how our current globalized food system could be transformed into a more sustainable and just one on a more regional scale. Questions such as this have been increasingly raised by social movements, local initiatives, and critical scientists. However, they are not new or unique. From a historical perspective, Food Regime theorists have been criticizing the distancing of production and consumption by processes of global sourcing with the expansion of world market integration after WWII until today. These processes resulted (and still do) in more disaggregated global value chains and unequal power relations between local producers and transnational corporations. In this lineage, different conceptual frameworks have emerged, which aim to theorize the spatial and temporal distancing of global value chains. One of them is Philip McMichael's notion of "Food from Nowhere" (McMichael, 2005, p. 287), which makes part of a corporate Food Regime and represents a model of mass production and processing of food and mass consumption within capitalist trade circles. In contrast, Harriet Friedman's "Food from Somewhere" (Friedmann, 2005; see also: Campbell, 2009) refers to the search for more regional and ecological food sources which, however, often results in a two-class consumer society in which some privileged groups have access to quality food and others rely on buying Food from Nowhere. More recent studies in Food Regime Theory try to discover relational spaces in which – instead of focusing on nation-states– powerful regional networks (e.g., complex of food corporations) are visualized in order to explain regional political-economic dynamics within the global food system (Wang, 2021, p. 638).

While Food Regime Theory helps explain inequalities in the food system from a historical point of view, it is rather emblematic that often public discourse about sustainable food consumption focuses solely on the individual scale of consumers' decisions, disregarding global inequalities at place (Brand and Wissen, 2017). However, we argue that local municipalities, specifically public food procurement, could provide an important leverage point for promoting sustainable food in a way accessible to all social sectors in the sense of food justice. Recent research projects (e.g., KERNiG), and policy papers underline the potential role of local municipalities for sustainable food transitions and offer concrete recommendations for policy measures (Schanz et al., 2020; Sipple and Wiek, 2023). Nevertheless, this potential role is largely underestimated, although in Germany, public catering entities serve about 12.4 billion customers annually, with rising tendencies (Speck et al., 2022, p. 2,288). Moreover, by promoting sustainable food services, cities can function as a role model for citizens, especially for pupils in the case of public school catering. However, due to neoliberal city management and outsourcing of public services in the last years, school catering was neglected, precariously financed, and externalized to private catering companies. In Germany, commercial catering companies deliver 88.7% of school food through the model of external provision. Only in a few cases (11.3%) school meals are produced in school-owned or municipality-owned kitchens (Jansen, 2019, p. 70). As the most relevant criterion for selection in public tenders is price, factors of quality and sustainability are seldom considered in the model of external provision nor is pupils' participation encouraged (Jansen, 2019). Thus, this study aims to uncover the key factors and challenges for shaping school food systems in a more just and sustainable manner. From this, we deduce the following two research questions:

1. How are global food production, transportation, and processing networks reflected in local contexts of school cafeterias, the cityscape, and bodies of consumers (pupils)?

2. What are the key factors for cafeterias to become a more just and sustainable place within public schools?

3. Theorizing food justice and food democracy in the context of Food Policy Councils and sustainability transformations in school canteens

Our study interconnects food justice approaches with ideas of food democracy regarding public school food canteens in Southern Germany. Although these concepts have different origins, they have interconnected agendas, which perceive food as a common good to which all citizens should have access to and should be able to decide upon. To unpack their underlying normative ideas and to illustrate how these concepts are perceived by regional stakeholders and what the contradictions are when putting them into practice, each approach will be first introduced by emphasizing its interlinkages to what is at stake here: a sustainable food transformation for food provision in public schools. In this view, we will first highlight how FPCs try to articulate food justice and food democracy by creating spaces for democratic participation in the food system and by making it more just and regionally connected.

Food justice is a "theoretical, methodological, and aspirational framework" (Reese and Garth, 2020, p. 1) that emerged from the movement against environmental racism in the 1980s/1990s in North America, which was predominantly led by women of color. By addressing the unequal distribution of environmental benefits and the higher prevalence of environmental damages such as pollution and floods among lower-class, migrant, and Black communities (Alkon and Norgaard, 2009), environmental justice movements spotlighted multiple dimensions of environmental racism. Accordingly, food justice activists claimed that Black and migrant communities in particular have less access to fresh and affordable food and are more affected by nutritional diseases such as diabetes or obesity (Guthman, 2014). Continuing these debates and activists' engagements, food justice theorists highlight the postcolonial continuities in the configuration of local food systems and analyze the underlying racist and patriarchal power relations that produce unequal foodscapes from an intersectional perspective (Winker and Degele, 2011; Miewald and McCann, 2014; Reese, 2019; Motta, 2021)—and which are still present and effective until today.[1] The food justice approach thus differentiates various justice dimensions such as global justice, distributional justice, capability justice, and procedural justice (Tornaghi, 2017). As a proposal and a political perspective, food justice activists claim equitable access to fresh and healthy food (distributional dimension) and hope for higher democratic participation in shaping the local food system (procedural dimension). This connects with the claim for more food democracy, which was put forward by the FPC movement. From a feminist point of view, the dimension of justice involves also questions about the equal distribution and recognition of the care work for preparing food—a work often undervalued and disregarded, especially when undertaken in invisible private spaces (Tronto, 1993; Brückner, 2023).

The *food democracy* approach conceives of food as a common, jointly shared good (Helfrich and Bollier, 2019; Vivero-Pol, 2019). The idea of food as a commons was introduced by Vivero-Pol (2019), who differentiated, on the one hand, five dimensions of food as a commons: Food as a human right, as a renewable resource, as a public good, as essential for human life, and as a cultural determinant. On the other hand, he identifies as an opposing dimension the notion of food as a commodity (Vivero-Pol, 2019, p. 34 f). The dimension of food as public good departs from the idea that all citizens should have equitable access to food. Public goods are generated through collective choices, funded by collective payments and (e.g., taxes) owned through private, public or collective property regimes (Vivero-Pol, 2019, p. 35). This is connected to food citizenship, which implies that citizens have rights to decide democratically upon the food system and also responsibilities (Vivero-Pol, 2019, p. 35; Welsh and MacRae, 1998, p. 240). In contrast, the dimension of food as a commodity is historically rather new, having expanded in the last 200 years due to capitalist accumulation and expansion of global trade. Treating food as commodity implies that people are merely conceived of as consumers, and their rights and decision-making power are reduced to their ability to buy or avoid certain products and services (Vivero-Pol, 2019, p. 34f). In Germany, school food is increasingly becoming a commodity according to the notion of food as tradeable good by Vivero-Pol (2019) due to the growing outsourcing and externalization of public services to commercial providers in recent years.[2] According to Hassanein (2008, p. 290ff), food democracy is expressed by five key aspects, two of such are "becoming knowledgeable about the food system" and "acquiring an orientation toward food as a community good." These aspects show the importance of raising awareness and sharing knowledge about food and food systems as a precondition to exercising food citizen rights.

The promotion of food democracy was brought forward by the rising FPC movement, which emerged in the context of the 1980s and 1990s in North America as an answer to the above-described problems

1 As a more recent example, Reese (2019) describes in her work "Black Food Geographies" the histories and trajectories of Black working class families in Deanwood, Washington, D.C., which were affected by public disinvestment in the 1970s/1980s. Here, supermarkets relocated to wealthier neighborhoods, grocery shops closed, and the remaining shops offered mostly fast food and frozen foods. This shift resulted in an unequal foodscape: "In Washington, D.C., the chance of a full-service grocery store being nearby depends on where a person lives. And, where a person lives, is highly dependent on race and class" (Reese, 2019, p. 47).

2 In contrast, Brazil is an example of a country that treats food as a public good in school canteens. Due to the efforts of the Brazilian FPC called CONSEA (Conselho Nacional de Segurança Alimentaria), which was founded in 2003 on a national scale, an innovative political program (programa nacional de alimentação escolar PNAE) was established in 2009, which sets very progressive requirements for public food provision. In Brazil, 30% of all food delivered to public institutions comes from familiar agriculture, which means a regional and usually an agroecological origin (Nogueira and Barone, 2022). The food in public schools is delivered to all pupils free of charge. Although the funding for PNAE was cut down during the former government of Bolsonaro (Mendes, 2022), Brazil provides an innovative approach to how food democracy and food justice can be practiced. With the government change in 2023, the reinstallation of the CONSEA and a stronger promotion of the PNAE is to be expected in Brazil.

of food racism in lower-class and Black neighborhoods. In Germany, the first FPCs were founded in 2016 in Cologne and Berlin, two major cities that were already strongly engaged in urban gardening and where community-supported agriculture (CSA) initiatives already existed. Their motivation was to expand their efforts from the local scale of neighborhoods toward the regional scale of the city and its surroundings and to build up networks with the surrounding rural communities with the FPC as an integrative platform. Currently, there are more than 70 FPCs in German-speaking counties.[3] Some of them are already well-established and financed by the city administration (e.g., Cologne, Freiburg, Oldenburg). Others are organized at a voluntary level, which requires more effort from their members in their free time to coordinate the activities and projects (see for more information: Sieveking, 2019). The FPCs are usually organized as associations with spokespersons, a coordinating committee, and working groups, which are open to the participation of local and regional citizens. Main areas of activity of these working groups are the promotion of biodiverse agriculture, regional value chains, edible cities, education, and public catering. The FPC's action area of public catering (especially school catering) will be the main focus of this study.

Grounded on the empirical insights gained through participatory observation and interviews and the collaboration with FPC in Southern Germany, we analyze how food democracy and food justice are articulated, hinder or undermine each other, when putting from theory into practice. In doing so, we draw on and depart from the uplifting and utilization of feminist notions of scale (e.g., the body and workspaces) for our mapping of socioecological inequalities within urban food systems.

4. Methods: participatory action research and mapping of global intimacies of food production, consumption, and working conditions in public catering areas

This study is inspired by and based on feminist geographical scholarship and research practices, which include reflecting our own positionality, being sensitive of the situatedness of the knowledge we reproduce and co-produce, and our entanglement with field relations, providing us with conceptual understandings of positionality and situatedness (Haraway, 1988; Ahmed, 2007; Billo and Hiemstra, 2013; Faria and Good, 2015; Coddington, 2017). Our positionality is linked to our experiences as white female academic researchers from a lower-class family background. Both of us have not been to a school where public food was provided. Our personal perspective on this topic is first and foremost related to our three-fold role as scientists, activists, and mothers, as one of the authors is engaged as chair in a local FPC and is single mother of a 13-year-old child. On the one hand, these rich experiences and entanglements enabled access to as well as some first-hand insights into activist and school contexts. On the other hand, being deeply inspired by PAR, our positionalities and collaborative approach also implied possibilities to co-reflect and re-think our own viewpoints on school food and normative issues of social justice together with actors involved in this research (Kindon et al., 2007).

PAR aims to merge research with action to transform social realities (Fals-Borda, 2000). In this case, our study is conducted in cooperation with the FPC movement in Germany. The underlying idea of this research was presented at three occasions to the groups involved (e.g., in the German-wide network meeting of FPCs in Cologne in March 2023) to receive feedback on the methodological procedure and to gain insights on what research questions, prompts, and notions of food justice, sustainability, and public catering are of interest from the activist's point of view. By analyzing the key factors of and barriers to organizing school catering in a more just and sustainable way and by feeding back results, this research aims to contribute to the knowledge exchange and conceptual growth within the FPC network and beyond. In this way, we are especially highlighting key factors and hurdles that emerge when implementing these ideas on the ground in school canteens and dining halls from both angles—those, who organize, produce, and process public food (municipal city governments, school administrative, canteen staff, local farmers, etc.), and those supposed to pay for and consume it (parents and pupils).

In doing so, our study aims to (a) integrate and contrast viewpoints from the different actors all along the school catering value chain and (b) visualize them in a less textual, more space-related way. To this end, 17 interviews were conducted between October 2021 and 2022. These interviews had an exploratory character to gather the perceptions and visions of school food actors about their understandings of sustainability and justice. Thus, the interviews were initiated with open questions on these terms and then a semi-structured questionnaire followed (see Supplementary material 1). In the selection of the interviewees, the aim was to gather the perspectives of the actors of the different stages in the school catering value chain (producer organization, kitchen management, city administration, parents' association, pupils, and teachers). Different models of school catering organizations (school-owned kitchen, municipality-owned kitchen, and catering company) were taken into account, as well as different regional foci within Southern Germany (Freiburg, Tübingen, Rottenburg, Mannheim, and Munich).

Additionally, four interviews were conducted with pupils to gain some qualitative insights into their perceptions of school meals. For this questionnaire (see Supplementary material 2), our questions were adapted to make language accessible for the target group. The questionnaire started with entry questions ("What is your favorite meal at school?") and open brainstorming questions about their first associations when hearing the term "sustainability." In the next step, we were asking questions on how their understandings of sustainability relate to their current perceptions and visions of school food. For these interviews, different age groups (12 years–15 years), school types, and genders were considered, although all pupils have at least one parent with an academic background. For the analysis, all empirical material was revised and restructured to identify and illustrate the five key factors and challenges that seem to be central to organizing school food in a just and sustainable way. To this end, all interviews were coded and analyzed with the software MaxQDA according to a previously defined codebook by organizing the entries along the

3 See map of the existing Food Policy Councils and initiatives on: https://ernaehrungsraete.org/ (Accessed 28 June 2023).

predefined categories: "sustainability," "participation," "food justice," "spatialities," "key factors," and "challenges."

Inspired by feminist approaches to Geographical Information Systems (GIS; Elwood, 2015; Whitesell and Faria, 2020), the food industry at play was mapped across the body, the city, and the global scale. By grounding the underlying macro (geo-)economic shifts in the experiences of pupils, their parents, public kitchen workers, and local farmers involved in the public food provision in school cafeterias, our insights revealed some of the cross-scalar political economics of food democracy and food justice. Thus, a form of "global intimate mapping" was developed (Whitesell and Faria, 2020, p. 1276; Klosterkamp, 2023) to find answers empirically to the central research questions introduced at the beginning.

Of particular influence to our mapping project are early feminist engagements with GIS (Kwan, 2002; Pavlovskaya, 2002; Elwood, 2015), which made visible the embodied, gendered, and relational spatialities of commonly ignored and marginalized subjects. In this way, we elucidate the paradoxes (re-)produced through the co-existence of "Food from Nowhere" (McMichael, 2005) and "Food from Somewhere" (Friedmann, 2005). This approach also helped us to take a closer look at the processes of including sustainability criteria in the public food sector and associated contradictions (see Figures 1–3). The overall goal of this investigation was to integrate and contrast the various perspectives of different actors all along the value chain of public school catering—from production, (re-)distribution, and meal preparation to consumption—to be able to portray a more grounded picture of the global-intimacies of the global–local food economies at play, when it comes to public food services.

5. Results

In the following section, the results of the analysis are presented, focusing on the main potentials and obstacles for establishing a higher degree of sustainability and food justice regarding school food systems. We also analyzed the enabling as well as hindering spatial factors and visions for a future school food system, which pupils and working staff mentioned during the interviews. The results show the various perspectives of the different actors on the categories of sustainability, justice, and spatial factors.

5.1. Sustainability in school food—various dimensions

When openly asked about sustainability in school food, interviewees mostly mentioned regionality and organic production as criteria. When explicitly asked about the social dimension of sustainability, most interviewees referred to working conditions in the school catering companies/school kitchens or to fair trade. During the interviews, they stated further criteria of sustainability that were not addressed by our guiding questions but appeared as relevant topic for the actors: above all, animal welfare, reduction of packing material, energy-saving cooking, and most important of all, food waste reduction. Interestingly, the interviews with different stakeholders and FPCs indicated that best-practice examples to meet these demands are already available. Among these are municipalities that demand a high share of organic food (50%–75%) in their public tenders. In this regard, the cities of Nurnberg and Munich were most often mentioned. Augmenting the share of organic food in public tenders was seen as an important incentive for contributing to a "resilient agriculture" (Interview No 4), which was considered as being necessary for organizing value chains in a more sustainable way. Additionally, the interviews also allowed to better understand some of the key difficulties that producers face—such as unpredictable demand shifts and high costs for certification processes—in the transition toward organic farming.

As one representative of a producer association mentioned, the transition to organic farming is fraught by high risks and may entail existential economic threats for producers because of high costs for meeting animal-welfare standards that raise product prices (Interview No 1). Herein, one crucial point is meat. Transitioning to organic meat production involves large investment in facilities (e.g., appropriate cowsheds) and further efforts to reorganize fodder supply chains (e.g., GMO-free, local). To make these efforts requires stable demand in the longer run (Interview No 1). Indicating Munich as an example, several interviewees disagreed with the general view that organic food in public canteens is necessarily more expensive than conventional food[4], yet the example of Munich showed strategies to offer organic food in a cost-neutral way. From the perspective of the farmers, cooperation with public procurement has a huge unexploited potential, but at the moment, there are still very few direct linkages between producers and public consumers (Interview No 2). Whereas school-owned and municipality-owned kitchens have more flexibility to integrate organic providers into their menu planning, the transition to increasing the organic share in public tenders is more difficult because contracts between city administrations and commercial catering companies last for about 5 years, inhibiting rapid changes in public procurement. As one interviewee expressed, a higher rate of organic products does not necessarily imply regionality "when the organic tomato sauce comes in cans from Italy or Turkey" (Interview No 1). In his eyes, not only share of organic food should be raised, but also regional value chains should be promoted.

Regionality is one of the most desired sustainability criteria, however it is often restricted by legal frameworks. In middle-sized cities such as Tübingen or Freiburg, due to European law, the total sum of the school food supply requires to announce the tender on a European level. This legal setting makes it rather difficult to integrate regional value chains as part of a sustainability strategy. The models of canteens owned by schools or municipalities have more potential to promote regional food as "proximity allows more flexibility" (Interview No 5). The municipality-owned and school-owned kitchens of this study are already working with a (limited) list of regional suppliers for certain products, such as potatoes, bakery, and milk products. In the interviews, seasonality was often mentioned as an

4 The city of Munich was set as an example for reaching a cost-neutral transition process. Among the strategies recommended to augment organic share in school food were reducing the amount of meat (e.g., by creating a one-meat-day-a-week menu), making long-term cooperations with regional suppliers (e.g., via direct selling contracts), integrating seasonal offers, and optimizing internal processes to reduce food waste. In another vein, the city of Freiburg decided recently to offer completely vegetarian menus for primary schools to allow a higher organic share and food quality (Interview N°15).

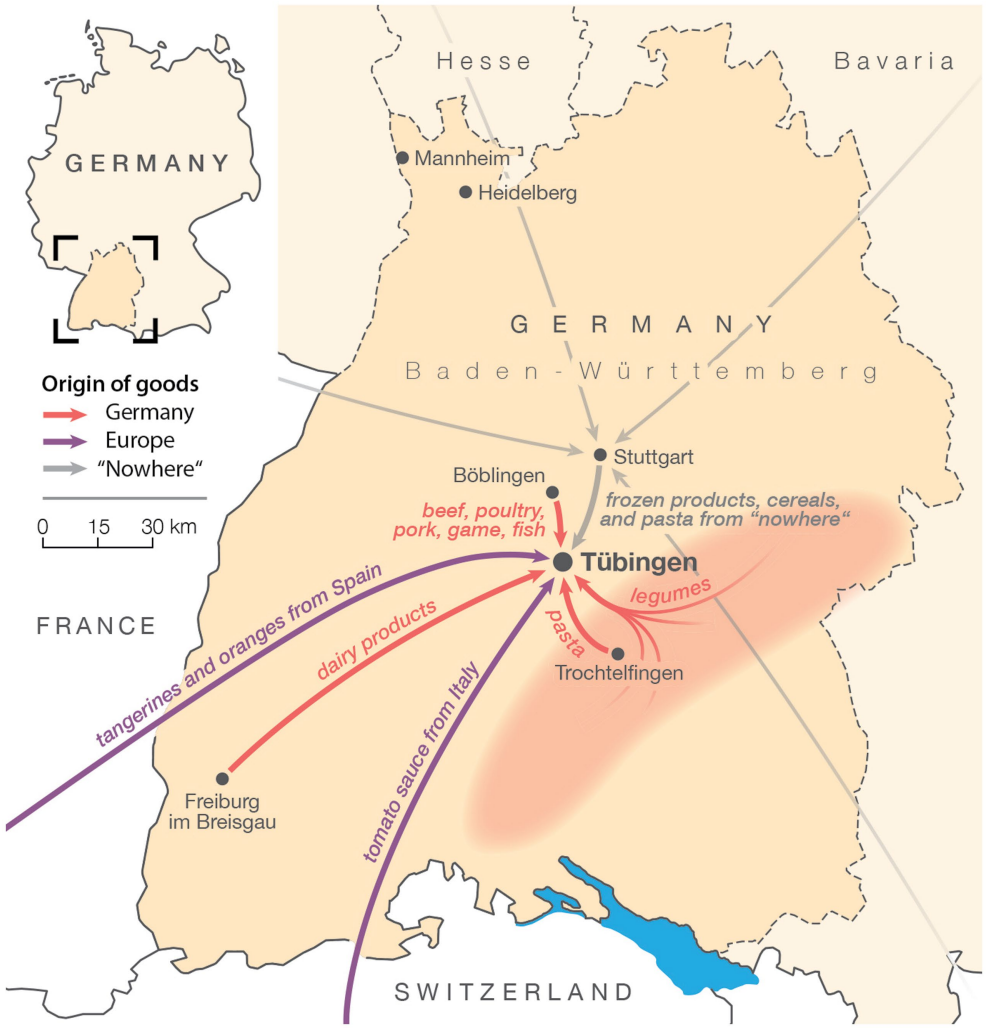

FIGURE 1
Learning from best-practices: spatial dimensions of regional vs. global food production and food transportation. © Irene Johansen, Sarah Klosterkamp & Birgit Hoinle.

important sustainability aspect. Defining a seasonally orientated menu plan as a requirement in public tenders also helps promote regional value chains. This can mean "pumpkin soup in autumn and no tomato salad in winter" (Interview No 14). From the perspective of the representative of the city administration, seasonality is a good way to promote regional offers, but the challenge is that pupils find the typical German dishes of autumn and wintertime (e.g., cabbage) attractive (Interview No 15). In our study, the school-owned and municipality-owned kitchens are already actively promoting the issue of seasonality—e.g., by adapting the menu plans to seasonal offers. Freshness is also an important issue for them: "We make all the 650 meatballs by ourselves, and also all sauces" (Interview No 5).

However, one of the main challenges in the implementation of a higher degree of regionality in public-school catering is in terms of scale: sometimes large kitchens need a vast amount of products (e.g., 50–60 kg of carrots), which small-scale regional producers cannot provide regularly because the caterers need the products all at once or in an already-processed format (e.g., peeled potatoes) to reduce the workload and, thus, depend on low processing costs and time. As one member of a producer association highlighted, maintaining the regional structures of food processing (e.g., mills, dairies) had no political priority in the last decades and should be promoted more: "We need a fair trade for the region" (Interview No 6). Given the legal constraints, very few municipalities make efforts to integrate and amplify regional value chains to supply schools–one of them is depicted in Figure 1. Here, three flows of commodities are visualized: goods from national and European origin with transparent origin, as well as goods with unclear origin in school canteens which underlines the notion of "Food from Nowhere."

Food waste was a highly discussed topic in nearly every interview. It is directly related to pupils' low acceptance rates of school food. Here again, the different models of food supply make a difference. In the school-owned kitchen of our study, every pupil from 1st until 6th grade eats every day at the school canteen. This habit makes it easier for the kitchen management to calculate the required quantities and to avoid food waste. As highlighted by the parents' association, "they work with exact portion sizes. When it is too small, pupils can go for second helping" (Interview No 8). In the municipality-owned kitchen, the proximity allows more flexibility: "When they like the potatoes, we can bring them more" (Interview No 5). In our study, in

the schools provided by external caterers, the high absence rates make it difficult for caterers to calculate the exact amount of food needed for the lunch breaks. Many pupils prefer to go to the city center and buy food elsewhere instead of having lunch at the school canteen. The unclear number of eaters is a challenge for kitchen management and generates high amounts of food waste. For instance, the city of Mannheim has developed a strategy to reduce food waste, which includes the regular adoption of portion sizes and a feedback system (Interview No 14).

5.2. Food justice—visions and challenges in public school canteens

All interviewees were asked about their vision on food justice and the role the issue of diversity plays in school meals. The answers reveal a panorama of visions by different actors and pupils—but also a lack of meeting specific dietary, economically-driven, or culturally-embedded needs, when it comes to public food provision in school canteens.

Working conditions in school canteens are crucial regarding the issue of food justice. In the municipality-owned kitchens, the municipality employs all kitchen workers, who receive a regular salary based on a labor contract in the public sector. In the case of school-owned kitchens, the school association employs only a few professional cooks, so parents also have to voluntarily help out with activities such as cutting vegetables, serving meals, or cleaning up afterward. One of the parents highlighted that at their school, not only the mothers but also the fathers are involved in this duty called "Kocheltern" ("cooking parents"; Interview No 8). From the perspective of a teacher who had the opportunity to know other school systems during exchange programs, in France, schools usually have their own kitchen, where employed workers prepare and serve meals: "I do not know any other scholar system where there are less employed people at schools than in Germany" (Interview No 12). Her statement shows that much more permanently employed personal resources would be necessary to improve school food quality.

There is a lack of knowledge about the working conditions of the staffs within the private catering companies. One interviewee explained that in the last decades, the food sector was economized and externalized, resulting in negative consequences for the working conditions—all of which also influenced the quality of school meals. As such, the demand for better recognition for the work of kitchen employees was visible in several interview statements: "The kitchen should have a feel-good atmosphere; people should like to work there" (Interview No 4), or "The workers should have space for creativity and for trying out new recipes" (Interview No 6). Regulated working hours, a fair salary, and a good quality of apprenticeship are also considered necessary (Interview No 6). In the workshop with the FPC, participants formulated a clear need for a better political and societal recognition of the profession of cooks in public canteens. In view of the rising requirements (e.g., hygiene standards, punctual delivery, etc.) for kitchen work, interviewees claimed that this situation should also be reflected in better payments and further education offers.

Regarding the issue of diversity, future school organization faces several challenges which could also be seen as potentials. The expert from a consultancy agency highlighted that diversity (in terms of diverse dietary or intercultural eating habits) has not been well considered and taken into account at the majority of school canteens (Interview No 3). Until now, this lack has been reflected only through offering dishes without pork meat for children of Muslim backgrounds. According to the interviewee's statements, further aspects of diversity that take into account the different needs of people from diverse cultural backgrounds are not considered yet. One interviewee claimed that the canteen organizers should better consider the needs of refugee children as sometimes the (regional) names of the southern German dishes (written in German dialect) are not understandable for German learners (Interview No 3). When asked about diversity, a member of a producer's cooperative stated that there is a lot of underexplored potential for this topic: "We need more out-of-the-box thinking and cooking" (Interview No 6). One project manager added that cuisines from other regions have a lot of potential regarding sustainability as many of them (such as Eastern European and Arabic countries) cook legumes such as lentils or chickpeas as plant-based proteins. She states that there is a "huge culinary playground" for creativity to discover new things from other kitchens (Interview No 4) by admitting that these potentials are so far not well developed at all.

These observations illustrate that school food is an inherently social justice issue. The provision of sustainable school food could be an approach that allows all children (regardless of class, race, parents' income, etc.) access to fresh and healthy food in the sense that food is a common good (Vivero-Pol, 2019, see above). Our results illustrate again the often contradicting demands and realities on the ground: considering the rising rate of children from migrant families being integrating into the school system, the issue of diversity or diverse eating habits are not sufficiently accounted for in the meal compositions. At the same time, more and more middle-class parents demand wholesome, organic, and thus healthy food on their children's plates, and in contrast, working-class families would not be able to afford this or would need more than the existing state subsidies for it (Morgan, 2015; Krüger and Strüver, 2018; Augustin, 2020; see for general comments: Haynes-Conroy and Haynes-Conroy, 2013; Shannon, 2014). Although municipalities provide subsidies to make food accessible for all families, the subsidies depend on each municipality's decision and economic power.

When asked about their visions for a future school, pupils had several (visionary) ideas: One was to integrate local gastronomy (his favorite restaurant has West-African dishes) in the school canteen because of its good taste (Interview No 11). Others said that children should "look forward to going eating there" (Interview No 10). In her eyes, always having vegetarian and vegan options should be "normal" (Interview No 10). When asked about their vision for food in a future school, parents and teachers referred to the issue of participation: "They should co-cut, co-cook, and co-decide" (Interview No 8). They also proposed formats, such as school conferences, which allow more pupils to participate or own working groups run by them. Schools having their own canteen with "diverse, regional, organic, and seasonal food" was considered important (Interview No 12). Here again, the emphasis was on the participation of pupils in the cooking and decision-making processes to address the formulated necessity that they regain the connection with food and learn to value it (Interview No 12). This change would also require more efforts to connect the transition with a holistic education concept that makes learning about regional food cultures part of the curriculum (Interview No 8). From the perspective of project coordinators, school canteens could be the places in which pupils learn "sustainable eating habits for the future" (Interview No 4).

5.3. Space matters—underestimated aspects of school food consumption spatialities

According to feminist and critical geography, the shaping of space reflects societal power relations – it is a space produced and reproduced by social processes (Belina and Michel, 2011). In the case of school food, many canteens reflect decades of political disinvestment and disinterest. The category "space" was not considered at the beginning of the questionnaire but came up during the first interviews as a crucial aspect for evaluating school meal organization. As highlighted throughout many interviews, space matters often immensely, as it renders and shapes the atmosphere, wherein food is socially consumed and shared: From the consultant's view, "food is a social process"; in his eyes, it makes a difference, whether the canteens are designed as "feeding centers" or "places of wellbeing" (Interview No 3). In a similar vein, it was critized that psychology and needs of teenagers were seldomly considered when designing the architecture: "The elder ones want their own spaces (…); they do not want to sit next to the ones of the lower grades" (Interview No 4). The representative of the parents' association also highlighted transparency of the kitchen as an important feature: "In our school, you can look directly into the kitchen; everything is transparent, very open, with glasses. Pupils can have a look on how they cook" (Interview No 8).

In our interviews, we asked pupils whether they like or dislike to go to the school canteens. From their perspective, first, high degrees of dissatisfaction with the food offered by private companies became evident during the interviews: "Nobody goes there; none of my friends goes there" (Interview No 11). "When they bring the food, it smells disgusting throughout the whole building; it smells like typical ready-to-eat meals" (Interview No 10). In light of the bad image of the school canteen, the teacher's perspective helped to explain the group dynamics among the pupils: "When the first one says, "I do not like this." All the others also do not like it" (Interview No 12). When asked about their wishes for school meals, pupils especially highlighted the need for freshness: "In my former school, they had carrots out of the can" (Interview No 11). When asked about their ideal canteen, pupils considered it important that they could sit with their friends and that the teachers do not prearrange the sitting order. Another interviewee mentioned that for her, "cleanliness" is important when eating with so many people and that she would like decorations on the tables (Interview No 10). Others wished for more comfortable sitting zones and a more friendly and colorful space design with "images on the windows" (Interview No 17).

The school canteen architecture is important for not only the pupils but also the staff: In some cases, the teachers also go and eat in the school canteens. The interviewed teacher states that in her school, teachers do not have enough space. If they want to eat the school meals the canteen offers, they have to take them in a box to the staffroom and eat there (Interview No 12). In her eyes, the spatialities of the canteens are very important: "There should be enough space; it should be a building with glass fronts and should have a view toward the urban green with comfortable sitting corners inside. Ideally, it should be designed as a multiuse building so that during the day, it can offer space for pupils to work there in the afternoon, and in the evening, the hall could be used for events" (Interview No 12). The spatial configuration also influences the quality and variety of school meals. She mentioned one example in which there is space for a salad bar, pasta bar, and certain action weeks, which attract the attention of the pupils (Interview No 8).

In combing these different accounts of pupils' and teachers' perceptions of the spatialities of school food provision with feminist qualitative mapping techniques, Figure 2 illustrates "the layered insights that feminist epistemologies and methodologies afford" (Whitesell and Faria, 2020, p. 1,277). The quotes visualized here reflect upon the different perceptions and visions of actors of the school value chain (including pupils) at place, by drawing specifically on the pupils' demands on how the school canteen may become a more welcoming and social space.

6. Toward a more just and sustainable school food system?

"We have already a lot of good examples and schools that cook on their own, but we need to change the structures" (Interview No 3). But who decides upon what? To what degree can citizens participate in and shape the local food system to meet the economic, political, and sustainability demands? In the following, we want to highlight crucial aspects for food justice discovered in our analysis, one of them is educational offers regarding food sustainability. These were seen as crucial in improving the acceptance and participation of pupils (Interview No 7). Although since the year 2016 in the curriculum for the federal state of Baden-Württemberg, sustainability and health are introduced as cross-cutting perspectives that every teacher should integrate into her/his lessons, food sustainability results often more as a "nice to have" topic but not as an integrated content of the curricula (Interview No 15).

Several interviewees stressed that relying on voluntary initiatives of singular schools is not enough and that, instead, political guidelines should be formulated to effect change toward a more just and sustainable school food organization. This move could be initiated on a local scale with a decision of the municipal council in which, for example, the increase of the share of organic and fair-trade products in public catering is defined. It was positively mentioned that, for instance, the federal state of Baden-Württemberg defined the goal of 30% organic food share in public catering as a political goal. As a concrete measure, the "Biomusterregionen" (organic model regions) were established to promote organic agriculture and value chains on a regional scale (Interview No 9). Political incentives such as the promotion of the network of "Biostädte" (organic cities) were considered relevant in the exchange of experiences between cities in the process of transitioning (Interview No 3). On a European scale, one interviewee demanded that foodstuff should be exempted from European competition law to allow the participation of regional providers in the public tenders for school meals (Interview No 15). Thus, our interviews illustrate that much more political will, educational efforts, and public investment are needed to put these measures into practice to promote changes on a more structural level.

In our overall analysis of the empirical insights, several key factors and challenges that promote or hinder the transition to a more sustainable and just school food system were identified (see Table 1). Among these, fair working conditions at the canteens, menu planning, different models of ownership and governance of public canteens, and

FIGURE 2
Mapping toward food justice: unfolding social-economic inequalities in the context of school catering in Southern Germany. © Irene Johansen, Sarah Klosterkamp & Birgit Hoinle.

attractiveness of the eating venue are all favorable factors and shall be discussed in more detail below.

All these favorable factors are often not implemented for various reasons: (1) a lack of regional networks, (2) economic constraints, (3) the lack of political will, and (4) a huge dependence on voluntary work, which can also shape the implementation of a more just, sustainable, and less exclusive public catering food system.

First, the lack of regional networks has been mentioned throughout all interviews as one of the main challenges. Particularly, interviewees referred to the missing links between producers and public catering institutions: "They seem to wait for each other" (Interview No 2). As explained, producers reclaim missing regional marketing possibilities, whereas catering companies and municipalities argue that regional and organic offers are not enough. In this regard, one difficulty is that larger kitchens need the products in huge amounts, and often, they need them already processed. However, in the last decades, many already-existing regional processing facilities, such as mills, slaughterhouses, or dairies, have closed. Political efforts are necessary to promote processing structures to maintain the full value chain of a region and connect them with the supply of public catering institutions. In this regard, the example of the "organic model regions" was outstanding as they undertook measures for promoting a platform in which canteens could find regional and organic providers and organized network meetings between producers and catering companies (Interview No 9). In a conceptual dimension, the promotion of regional food networks could contribute that pupils – instead of receiving "Food from Nowhere" (see McMichael, 2005)—could experience where their food came from and who is producing their food in the sense of a "Food from here" (Schermer, 2015).

Second, economic constraints were mentioned in several interviews, by drawing on a wide variety of different challenges throughout the production process and distribution of food, that come into play in school canteens, such as (a) rising prices due to inflation and economic crisis (Interview No 5), (b) high investment costs for transitions toward organic meat production (Interview No 1), and (c) difficulties of small-scale producers to make a living out of organic farming (Interview No 6). From a producers' perspective, one main challenge was the missing planning reliability due to an unpredictable and volatile market situation (e.g., in the organic sector). In this regard, direct cooperation schemes with public catering would be a way to develop long-term perspectives for regional producers and processors (Interview No 1). The two producer associations interviewed in this study still do not cooperate with public catering but considered this as their future project.

Third, and as illustrated in Figure 3, many interviewees discovered a "lack of political will" (Interview No 12) that hinders, for instance, investment in public catering that would improve the sustainability

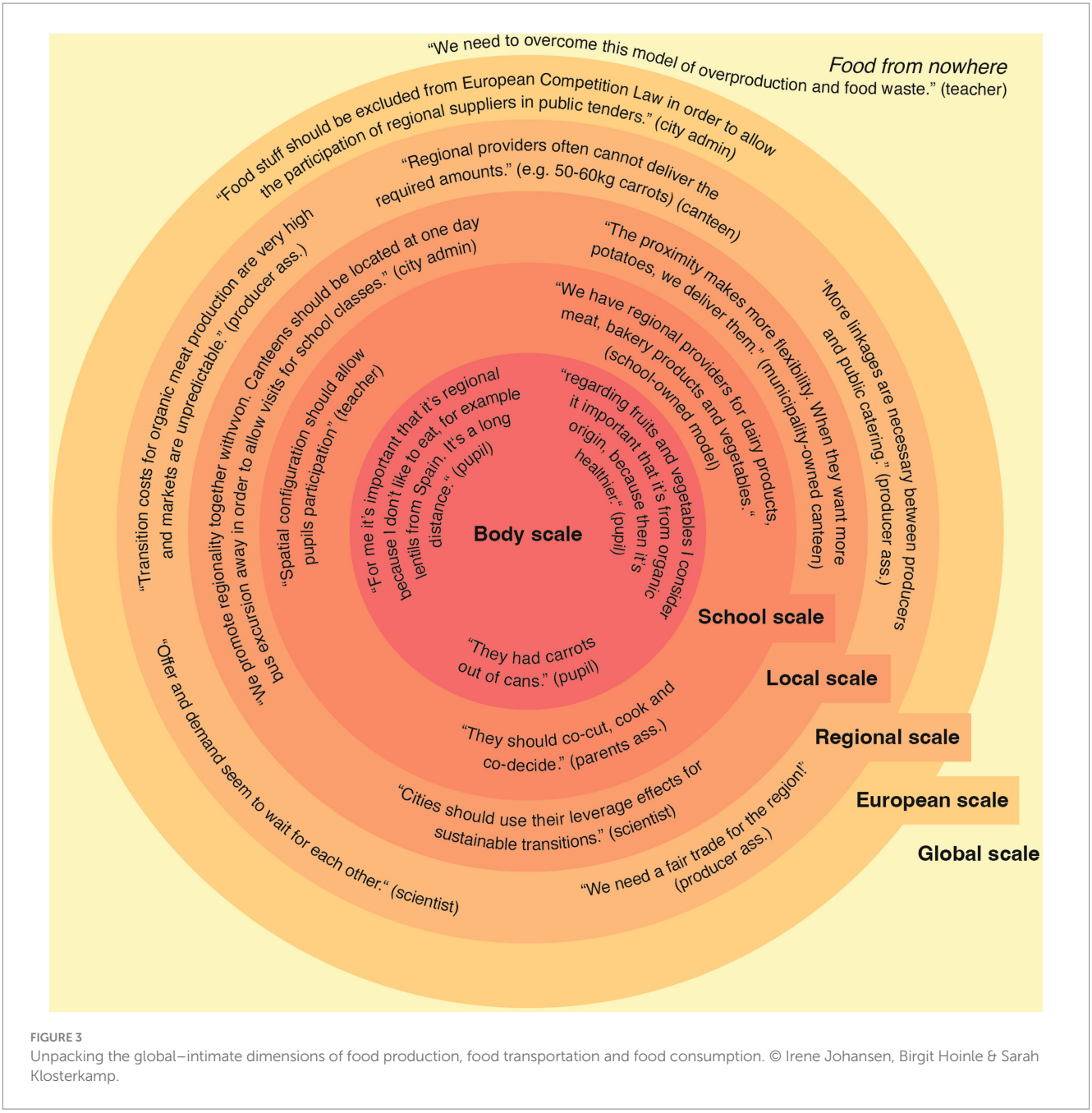

FIGURE 3
Unpacking the global–intimate dimensions of food production, food transportation and food consumption. © Irene Johansen, Birgit Hoinle & Sarah Klosterkamp.

and quality of school food. At an organizational level, sometimes, persons in leading positions were observed to end up being "the bottleneck" as they promoted or constrained efforts toward more sustainability based on their individual opinions (Interview No 2). In this regard, establishing political guidelines as orientation was viewed as necessary (Interview No 4).

Lastly, the example of the school-owned canteen illustrates how several initiatives already on a promising transition toward sustainability still highly depend on voluntary work or parent engagement (Interview No 8). However, not in all social contexts are parents in the appropriate condition or have enough time capacities to contribute with their unpaid work (e.g., single parents). While the type of school-owned kitchen was especially motivated by parents' dissatisfaction with the predominant externalized model of school food, it is thus not easily transferable to other (less privileged) contexts. The parents' reliance on unpaid voluntary work makes it likely that women take over this work and that a gendered division of labor is reproduced in a similar vein as in household economics. The logic is related to the missing recognition of cooking as an essential care-work for the well-being of society (in this context in public school catering places).

Figure 3 illustrates the challenges for providing school food in a more sustainable and just manner on different scales, ranging from the body scale up to the local, regional and global scale of food consumption and production, closely aligned to our findings. As such, this figure illustrates that efforts to improve food justice in school

TABLE 1 Key factors for a more just and sustainable school food system, elaborated based upon empirical results (own source).

1. Fair working conditions at canteens and at global–local production sites	The motivation of the kitchen staff was seen as crucial (Interview No 3, 6, 9). According to the interviewees, workers should have a regulated contract and a platform for feedback with the kitchen team (Interview No 5). The consultant also mentioned that more holistic approaches are needed in which kitchen workers are part of the transition process toward sustainability. The kitchen staff should be more involved and have possibilities and time for creation—e.g., inventing new dishes out of seasonal offers (Interview No 3). This requires more investment in further education and capacity-building. The direct cooperation between catering companies and regional providers was mentioned several times as a crucial point to promote regional value chains and to create stable food networks between city and countryside, which provide long-term economic perspectives for regional small-scale producers (Fieldnotes from a workshop with FPC).
2. Innovative menu planning	The transition toward sustainable menu planning requires more than just replacing one product (e.g., meat) with a substitute product. The creation of proper, nutritious vegetarian dishes that are attractive to pupils was viewed as necessary (Interview No 4). Instead of relying on convenient products, which are often rather expensive, working with legumes as plant-based proteins and creating self-made substitutes would be and could minimize possible cost increases in the transition to organic (Interview No 2). Here again, the aspect of capacity-building for kitchen staff seems crucial and is promoted by projects such as "Bio für Kinder" in Munich or the federal program "BioBitte."
3. More agency through municipality-owned models of school canteens	Regarding the different models, the interviewees in our study see the most potential in the municipality-owned model: "This model has more leverage points for a transition toward sustainability" (Interview No 4). According to the interview statements, the criteria of sustainability can be more easily implemented, including the most challenging criterion of regionality. Municipality-owned canteens do not depend on European-wide public tenders and can create regional networks with suppliers (Interview No 2). Yet, they have a better performance regarding the social dimension of sustainability due to the fact that all stuff members have fixed contracts with the municipality. They also have economic advantages because paying a 19% value-added tax on the meals is not necessary (Interview No 4). All in all, city administrations were viewed as crucial for sustainable transitions" (Interview No 6). With the municipality-owned model, they have more decision-making power to establish programs to promote sustainable public catering
4. Attractive spatial arrangements	Many interviewees agreed that the space where meals are served is a key aspect for the well-being of the pupils during the meals and that they should enjoy going there. Teachers and pupils emphasized their vision of a friendly canteen building with enough space for comfortable sitting corners (Interview No 10, No 12, No 17). More subsidies and political support should improve the kitchen equipment so that kitchen staff has enough space and facilities to prepare sustainable meals (Interview No 9). As shown in the quotations of the pupils, the school canteens delivered by external companies have a very bad image with many prejudices about (poor) food quality and taste intertwined. Efforts to improve quality and sustainability at school canteens or to introduce a new model should be accompanied by communication and education endeavors to make these places more attractive. In this regard, the offers for further education and consultancy directed toward catering companies and canteens should be expanded (Interview No 4, see also Key Factor 5).
5. Education and participation activities for pupils	In the school-owned models, good communication directed by the school, with the school community staying behind the model, was considered important (Interview No 8). The reasons for the measures to improve sustainability, such as reducing meat-centered meals to only once a week or vegetarian meals, need to be communicated well and made transparent to the pupils and parents (Interview No 15). This improvement also requires the involvement of the teachers who could bring these topics into the classroom (Interview No 8). The FPC proposed a holistic concept of education for sustainable development as crucial to accompanying transition processes (Interview No 7). Moreover, education for sustainable food should be "a topic for every week at schools" (Interview No 6). The statements of the pupils also underlined their interest in farm excursions and activities that involve gardening or preparing food in school (Interview No 11; 13).

canteens have to consider different scales to develop better action strategies toward social justice and sustainability along public food provision, by reforming European law (European scale), improving networking of producers and canteens and by incentivizing new value chains on regional scale.

7. Conclusion: who decides about school food?

Our results show key factors for organizing school food systems in a more just and sustainable way in Southern Germany and beyond, although these processes are related with several challenges.

Following the lead of Whitesell and Faria (2020), and as such, by incorporating feminist methodologies with GIS technologies, the aim was to highlight and amplify often-unheard voices within the public food system, such as that of pupils and parents of public schools, and their visions for a transition to a more just and sustainable space. As such, our study tried to integrate the grounded viewpoints of local consumers with the production needs and price sensitivity of transportation modes (see Figure 1), deeply connected and rendered by each type of food that gets served and combined as a meal plan (see Figure 2) or referred to as a democratic, sustainable, and more just undertaking within the region (see Figure 3). Mapping these economically vibrant, socially distinct, and (trans-)national spaces of food production, transportation, and processing within the food system of school cafeterias offers new and layered understandings of the global, political, and economic shifts reshaping the economies of public food provision in Germany. By back bounding these findings to the theories in place, our empirical insights also illuminate further

research areas for the study of Food Regimes, and globalization in and through the food system and its underlying (in)justices, contradictions, and aspirations in multiple ways.

Regarding sustainability, several examples of already engaged municipalities were identified that were on the way to improving the share of organic food in school meals. The municipality-owned kitchens were discovered to have more potential for better working conditions than the school-owned and externalized models, because canteen workers have fixed, long-term treaties with a public institution there. Regarding the criteria of regionality, the municipality-owned model has more possibilities to promote and build up regional value chains. This opportunity is connected to the spatial and social dimensions of sustainability because the integration into regional networks could help small-scale farmers to have a steady demand for their products in public catering entities and offer them economic perspectives. Several interviewees (including pupils) referred to food waste as a highly relevant topic of sustainability. In this regard, the need for further research was identified to develop strategies for avoiding food waste in terms of kitchen organization and more sustainable ways of reusing the waste (e.g., biogas systems). For us, food waste is not only a regional problem but also an international one, taking into account the global justice dimension of food and its socioecological inequalities of overproduction and food poverty all along the value chain.

Regarding the aspects of food democracy and food justice within the transition toward a more sustainable and just public feeding within the school-food-provision economy, only the model of municipality-owned canteens was discovered to correspond to the dimension of (school) food as a public good according to the notion by Vivero-Pol (2019) and, thus, may be best positioned to take a lead here for other school food policies to follow. The school-owned canteens also demonstrate these potentials to a lesser degree. However, although in the school-owned models, the school community (teachers, parents, pupils, etc.) has more decision-making power to define the guidelines of how a canteen works, they depend on the voluntary engagement of parents, which can reproduce the gendered divisions of care work (cooking) and exclude people from less privileged contexts. This highlights the need for more research on the role of inclusive and democratic participation in the school food value chain and the potential role of civil society initiatives and FPCs to foster stronger collaboration bonds and regulations between all parties involved. Freiburg was the only example in this case study in which fruitful cooperation between the city administration and the FPC had been already established, which led to several progressive political measures such as the promotion of regional providers for school food in public tenders, combined with educational offers for pupils. Nevertheless, and while much still remains in flux, first studies draw on FPC in Germany, France, and Switzerland and provide first comparative insights to their roles as leverage point for sustainable food transitions and food democracy approaches (Michel et al., 2022).

Overall, regarding the visions for future school meals, all interview participants saw the need for pupils to have more spaces of democratic participation in the school food organization and menu planning—e.g., in formats such as school conferences or working groups. As the results show, the involvement in the kitchen process also has an educational dimension such as learning where food comes from and how it is prepared, which then could also foster broader debates on the value of food and the (invisibilized) labor behind the production and preparation process. Efforts on making the often challenging and precarious working conditions behind the food "visible"—in the production and cooking process—can be seen as one of the most relevant urgencies for changes in the school food system. From a feminist point of view, the missing societal recognition of the care work for preparing food (in this case in public canteens) is a crucial aspect in this regard, so far often left aside. Thus, as our findings show, an improvement in working conditions in public canteens, the promotion of regional value chains that integrate local small-scale producers, and a better recognition of the profession of a cook are key factors (see Appendix) for making "Food from Nowhere" visible and tangible—and in this sense, for fostering social-ecological transitions in the global–local food system which integrate more "Food from Here" networks. Our final conclusion is the grounded notion that a more holistic approach is needed in which all actors involved within the school food value chain work together to promote long-term changes in the local–global food system in Germany, and elsewhere. According to our results, public provision can be an important leverage point for transitions toward sustainability and social justice. However, as the analysis of challenges also highlights, several structural, legal and economic constraints barriers impede the evolvement of these potentials currently. Thus, much more political efforts and measures, such as the promotion of regional value chains, stronger efforts and improvements of working conditions at canteens remain necessary to convert public canteens into "transformative places" under unjust conditions.

Data availability statement

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

Ethics statement

Written informed consent was obtained from the individual(s), and minor(s)' legal guardian/next of kin, for the publication of any potentially identifiable images or data included in this article.

Author contributions

All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

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Conflict of interest

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

Publisher's note

Supplementary material

The Supplementary material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fsufs.2023.1085494/full#supplementary-material

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Appendix

List of interviews and workshops

1. 11 October 2021, director, producer association, Rebio Rottenburg
2. 11 November 2021, scientist, University of Applied Forest Sciences Rottenburg
3. 17 March 2022, consultant, consultancy agency, Öko-Konsult Stuttgart
4. 25 March 2022, employee, project "Bio für Kinder," Tollwood mbH München
5. 1 July 2022, director, kitchen management, Rottenburg
6. 1 July 2022, management, producers cooperative, Xäls Tübingen
7. 13 July 2022, activist, food policy council, Freiburg
8. 15 September 2022, activist, parents' association, Tübingen
9. 16 September 2022, employee project management, Biosphärengebiet Schwäbische Alb
10. 22 September 2022, pupil, Tübingen
11. 23 September 2022, pupil, Tübingen
12. 1 October 2022, teacher, Tübingen
13. 5 October 2022, pupil, Tübingen
14. 13 October 2022, employee city administration, Mannheim
15. 20 October 2022, employee city administration, Freiburg
16. 21 October 2022, cook, kitchen administration Tübingen
17. 22 October 2022, pupil, Tübingen
18. 11 March 2023, workshop, Food Policy Council activists, Cologne

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Food democracy as radical political agroecology: securing autonomy (alterity) by subverting the state-capital nexus

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Food democracy and political agroecology, as closely allied social movements, have become associated in the main with what may be termed 'agrarian populist' and postcolonial problematics. While certainly 'radical' in relation to hegemonic neoliberal, or sub-hegemonic 'national developmentalist', framings of contemporary agricultural and ecological crises and their mitigatory responses to them, populist food democracy and political agroecology, it is argued here, fail convincingly to identify causality underlying the 'political' causes of these capitalogenic contradictions. While more convincing in identifying such causality in the 'ecological' domain in terms of the need to 'localize' and 're-territorialize' food production and consumption networks, in its 'political' aspect populist food democracy and political agroecology demonstrate a failure to specify key ontological drivers of capitalogenic contradiction in terms of state, capital, class, and, more generally, power relations in their historical particularity. These shortcomings of 'populist' food democracy and agroecology in their 'political' aspect are exemplified by reference to key academic texts arising from the movement. The paper then proceeds to identify how these populist assumptions differ from a Marxian derived understanding of contradiction and the resulting proposal for a 'radical' political agroecology as substantive food democracy.

KEYWORDS

food democracy, political agroecology, food sovereignty, autonomy, state-capital nexus

Introduction

Food democracy, and its close ally political agroecology (and, indeed, the latter's close relation, food sovereignty), have, as social movements, become associated predominantly with what has been termed an 'agrarian populist' problematic (Bernstein, 2014). Such agrarian populism, or 'peasant essentialism', thus invokes political agroecology as the social means to secure sustainable food production and the democratic oversight of the wider alimentary system as food democracy (see de Molina et al., 2020). We describe these prevalent definitions or framings of food democracy (see Hassanein, 2008; Vivero-Pol et al., 2019), political agroecology (see Toledo and Barrera-Brasols, 2017; Pimbert, 2018; de Molina et al., 2020), and food sovereignty (see McMichael, 2013; Desmarais et al., 2017) as 'agrarian populist' because, we assert, they lack key analytical elements that help us both to understand the dynamics of capitalism and the state-capital nexus (together, the principal motor of ecological and political unsustainability globally), and, through such understanding, to subvert this dynamo of

planetary despoliation, at least so far as the agri-food dimension is concerned. While we will detail the analytical shortcomings of these prevalent definitions and framings in the course of this paper, it may be helpful to summarize their most salient deficiencies at the outset, albeit at risk of parody: thus, for 'food democracy', these shortcomings involve a focus on 'political' or formal democracy at the expense of constraining the economic powers of capital and their operation through market dependence – in other words, a lack of attention to 'economic' unfreedom and substantive democracy (Tilzey, 2019c); for 'political agroecology' they entail principally a focus on 'localism' and 're-territorialization' at the expense of addressing capitalist social property relations upheld by the state-capital nexus; for 'food sovereignty' they involve a focus on the 'progressive' preoccupations of 'democratizing' and 'greening' food production and consumption networks to the neglect of 'radical' concerns to de-commoditize access to food and land by subverting capitalist market dependence (Holt-Gimenez and Shattuck, 2011; Tilzey, 2018a).

In order to confront capitalism and the state-capital nexus, and thereby to secure sustainability as 'real autonomy' ('true alterity'), we will propose in this paper Marxian-derived definitions and framings of these terms in preference to their currently populist orientation. At risk of anticipating our argument, we will define what we propose to term 'substantive' food democracy as the institutionalization of deliberative/participative democracy in relation both to political process and to economic access to the means of production, thereby abrogating the operation of the 'self-regulating market' as capitalist market dependency and the dichotomy between the 'political' and the 'economic' in capitalist society; what we term 'radical' food sovereignty is the application of substantive food democracy to the production, distribution, and consumption of food (and associated land use) within states and territories, based on principles of social equity and ecological sustainability involving, perhaps most importantly, equality of access to the means of production for the de-commodified provision of use values; and 'radical' political agroecology is the political means to secure the above through agroecological principles.

We will start this paper with a brief clarification of what agroecology entails, and then proceed to delineate the linkages between the political advocacy of this ecologically-based mode of farming (political agroecology) and food democracy. Agroecology is the proposition that agroecosystems should aspire to replicate the biodiversity and functioning of natural ecosystems. In mimicking these natural models, agroecology, it is maintained, can not only be productive, but also pest-resistant, nutrient-conserving, and resilient to shocks and stresses. Emulating natural ecosystems, agroecology aspires to eliminate 'waste', such that all nutrients deriving from the soil are returned to the soil, thereby avoiding the phenomenon of the 'metabolic rift' (Marx, 1972) characteristic of industrialism and capitalism. The key elements of agroecology are the use of locally adapted and genetically diverse crops, trees, and livestock, the deployment of biodiversity to control pests and diseases, the recycling of nutrients within the local agroecosystem, and the proscription on the use of agrochemicals and fossil fuels (Altieri, 1995; Gliessman, 1998). Because of this refusal to rely upon agrochemicals and fossil fuels, agroecology is necessarily labour-intensive (and knowledge-intensive), and therefore requires large numbers of people on the land producing food, in stark contrast to the de-populated countryside of capital-intensive and fossil-fuel based agricultural productivism. By the same token, the agrochemical-and fossil-fuel-based production of food by a few highly mechanized farms for a huge population of non-food producers, characteristic of industrial productivism, is a structural anathema to agroecology.

Agroecology thus represents not only a convincing and integrated 'ecological' and food production response, but also a profound challenge, to the ills of capitalist agrochemical productivism that underlie many of the principal biophysical and social contradictions of the Anthropocene (or, perhaps more accurately, capitalocene).[1] These we may enumerate as climate change, soil degradation, biodiversity loss, reliance on non-renewable resources, loss of cultural and traditional knowledge, erosion of indigenous/peasant knowledge and livelihoods, etc. As agroecology has moved toward the centre stage of international and national policy debate, however, the meanings and practices of agroecology have become increasingly contested by different interest groups. Here, even the 'ecological' tenets of agroecology have been subject to subtle, and less than subtle, appropriations and distortions by hegemonic (neoliberal) and sub-hegemonic (national developmentalist, and neo-mercantilist) interests (see Tilzey, 2020b; Wach, 2021). Agroecology has, of course, also a 'political' dimension, not only in terms of its analysis of politico-economic causality underlying Anthropocenic (or, more particularly, capitalogenic) contradictions (and, more specifically, how these are impacting food systems), but also its normative proposals, or imaginary, of how society might need to be organized to realize the agroecological bases of sustainable food production. Here the differences between agroecology (as above defined rather than in its latter day appropriations) and the neoliberal (*hegemonic*) and national developmentalist (*sub-hegemonic*) capitalist policies are pretty clearly drawn – both of the latter are premised on productivism, the first (ostensibly) 'market productivism', the second, 'political productivism' (Tilzey, 2000) [although it might be noted that the concept of 'food sovereignty', which is often taken to be synonymous with agroecology, has often been used by national developmentalist and market protectionist strategies as a counterpoint to neoliberal imperialism (see Tilzey, 2020b)].

What is less commonly appreciated are the differences *within* agroecology (as above defined) in its 'political' dimension between what may be termed an 'agrarian populist' position [which we might otherwise term '*alter-hegemonic*' or 'progressive', and which has tended to appropriate the terms 'food democracy' (see Tilzey, 2019c) and 'political agroecology'], on the on the one hand, and a 'radical' (implicitly or explicitly Marxian), or '*counter-hegemonic*' position on the other (these mirror, unsurprisingly, similar differences within food sovereignty discourse) (Tilzey, 2018a).

1 The Anthropocene is a descriptive term denoting the period during which human activity has become the dominant influence on planetary climate and the environment (see Lewis and Maslin, 2015). It makes no attempt to identify specific causality underlying these human-induced impacts, however. The capitalocene, by contrast, (we use lower case since this term has not been adopted officially as a proper noun) does seek to identify specific causality underlying these impacts, that is, the rise of capitalism (see Moore, 2016). Ironically, perhaps, Moore misidentifies the nature of capitalism, conflating it with mercantile capital, or commercial exchange, a phenomenon with a far longer history than capitalism proper (see Tilzey, 2018a; Tilzey et al., 2023).

Thus, prominent usage of the term political agroecology to date, self-avowedly or otherwise, appears to conform to an agrarian populist approach (see for prominent examples Toledo and Barrera-Brasols, 2017; de Molina et al., 2020; Tornaghi and Dehaene, 2021). A possible exception here is that of Bottazzi and Boillat (2021) who deploy a more nuanced and differentiated categorization of the peasantry and subaltern classes than is common in the 'peasant' essentialization characteristic of agrarian populism, where 'peasant' is taken to refer to an undifferentiated corpus of small, family farms. Given this general equation of political agroecology with agrarian populism, the present paper is the first to articulate political agroecology in detail from a Marxian perspective and to employ this as a basis for identifying the shortcomings of the term when employed by agrarian populists.

We may take a recent paper, namely *The Global Status of Agroecology: A Perspective on Current Practices, Potential and Challenges* (Pimbert, 2018), as an exemplar of agrarian populist political agroecology and food democracy (and indeed food sovereignty). Some of the key principles of agrarian populist agroecology in its political dimension (as food democracy) are delineated here:

(i) Farmers distancing themselves from markets supplying inputs (hybrid seeds, genetically modified organisms, fertilizers, pesticides, etc.), reduced dependence on commodity markets for inputs enhances farmers' autonomy and control over the means of production;
(ii) Farmers diversifying outputs and market outlets, a greater reliance on alternative food networks that reduce the distance between producers and consumers while ensuring that more wealth and jobs are created and retained within local economies, for example, short food chains and local procurement schemes that link organic producers with schools and hospitals;
(iii) Active citizenship and participation in decision-making are rights that are claimed mainly through the agency and actions of people themselves; they are not granted by the state or the market;
(iv) Empowering farmers as well as other citizens in the governance of food systems and the wider ecosystems they are embedded in (grasslands, forests, wetlands, etc) requires social innovations that: (a) create inclusive and safe spaces for deliberation and action; (b) build local organizations, horizontal networks and federations to enhance peoples' capacity for voice and agency; (c) strengthen civil society and gender equity; (d) expand information democracy and citizen-controlled media (community radio and video film-making); (e) promote self-management structures at the workplace and democracy in households; (f) learn from the history of direct democracy; and (g) nurture active citizenship;
(v) Diverse agroecologies and re-territorialized food systems in which economics is re-embedded in society (Polanyi, 1957), all require inclusive participation and collective action to coordinate local adaptive management and governance, across a wide range of food systems and associated landscapes (forests, wetlands, grasslands, etc);
(vi) Strengthening citizen-centered food systems and autonomy calls for forms of political and social organization that can institutionalize interdependence, without resorting to the global market or the central state.

In the present paper, we suggest that there are a number of theoretical 'absences' and shortcomings underlying the above principles. We propose to examine these asserted political/ontological absences and shortcomings by means of critique through development and deployment of an ecological and political Marxian frame to articulate a 'radical' (or counter-hegemonic) positionality with respect to political agroecology and autonomy (alterity), which, we maintain, comprises the key basis for *substantive* food democracy (see Tilzey, 2018a, 2019c for fuller delineation of this position). While we may concur normatively (and enthusiastically) with most of the above principles, especially in relation to local and deliberative/participative democracy, and above all in the need for the adoption of agroecology both ecologically and politically, the ontology of society and the model of social dynamics that they embody are, nonetheless, asserted to be in certain important respects deficient and politically naïve. We demonstrate the shortcomings of agrarian populist and related postcolonial framings of political agroecology, food sovereignty, and autonomy in terms of both analytics and political praxis by, first, defining an alternative and Marxian-derived ontology of agrarian class dynamics, and, second, drawing out the implications of this ontology for the notion of autonomy (alterity). We also point out the dangers of peasant agrarian populism and indigenous (postcolonial) 'culturalism'[2] in both fragmenting and obfuscating the forms of autonomy required to subvert the state-capital nexus and build ecologically sustainable and socially equitable livelihoods through 'radical' political agroecology.

It is important to note here that while this paper draws on illustrative examples principally from the global South, its theoretical arguments are of profound relevance to debates around agrarian autonomy and alterity in both South and North. This is so because geographical context in this paper is not merely a contingent backdrop, but rather of deep structuring importance to agrarian dynamics and associated discourses. This is the case because, as we will seek to demonstrate in this paper, the features that lend the South and the North their distinctive characters (peasant persistence and 'disarticulated' capitalism in the former, peasant disappearance and 'articulated' capitalism in the latter[3]) are not contingently but rather dialectically related, arising from historical and contemporary relations of imperialism and colonialism between the latter and the former (see also Tilzey, 2020a; Tilzey et al., 2023; Tilzey and Sugden, 2023). These relations profoundly shape the differing configurations of agrarian politico-economic interest groups and their discourses in

2 That is, the essentialization of culture and cultural 'difference' such that questions of power, class, status differentiation, exploitation and, above all, historical and social dynamics are excluded from anthropological analysis. See Eric R Wolf's *Europe and the People Without History* as an example of Marxian-based and historically-informed anthropological theory.

3 Where we define 'peasant' not as a generic small family farmer, whether market dependent or not, as do the agrarian populists, but rather as conforming to Eric Wolf's characterization of 'peasant' in his *Peasant Wars of the 20th Century* (Wolf, 1999) as an essentially non-market dependent producer of use values for family and community, equating to the 'middle peasant' (see below).

each pole of the global capitalist system. Overall, our purpose in this paper is to bring into greater dialogue theoretical positions – agrarian populism and Marxian political economy/ecology – which have become unhelpfully polarized and which have tended increasingly to 'talk past' one another.

The ontological shortcomings of agrarian populist political agroecology as food democracy

The first two principles delineated in the work of Pimbert (2018) above build on the work of agrarian populists such as van der Ploeg (2008). Agrarian populism, we may recall, regards 'family farms', otherwise erroneously equated with the 'peasantry' *tout court*, to comprise an essentially undifferentiated class, which reproduces itself despite capitalism, and represents a distinct and enduring mode of production that both resists, and is autonomous from, capitalism (Brass, 2000; Kay, 2006). It considers capitalism, and more especially neoliberalism[4], to represent a monolithic phenomenon which, while remaining external to the internal dynamics of family farms/the 'peasantry', nonetheless acts to constrain and compromise their putative autonomy (Bernstein and Byres, 2001; Jansen, 2015; Tilzey, 2017; Habibi, 2023). Family farms/the 'peasantry' are regarded as lacking in class fractional economic, ideological, and political differentiation, as coherently opposed to capitalism (and, more especially, to neoliberalism) (Bernstein, 2014; Habibi, 2023), and, therefore, as representing consistent agents of counter-hegemony. While self-avowedly populist political agroecologists such as de Molina et al. (2020) do recognize class fractional differentiation among the peasantry and family farms, this is considered to be of lesser significance than the ideological and political factors that supposedly unify these class fractions. Because agrarian populism fails, however, to theorize the essence of *capitalism* (as opposed to neoliberalism), which, for populists, is a problem principally of scale and not of social production relations, the result is that 'peasant' or 'family farm' alterity involves, not the abrogation of capitalist social property relations, but rather the localization and re-territorialization of production and consumption networks. Alterity is thus seen to comprise market relations that are 'embedded' in local ecology and society, rather in the manner of Polanyi (1957). In a similar way, populism fails to understand the *internal* and class relation between capitalism and the state (or the 'state-capital nexus'), conceiving them, respectively, as a reified private/market domain counter-posed to an essentialized public domain (see Tilzey, 2018b, 2019b for discussion).

Thus, principles one and two above assume that reducing dependency on upstream inputs and greater reliance on ecological processes and local markets generates autonomy from capitalist markets. While the family farms attempting to reduce such upstream dependency may not be strictly capitalist (that is, not employing off-farm labour) and may thus be described as petty commodity producers, their central reliance on the sale of petty commodities into markets, even where local and ecologized, renders them subject to capitalist market dependency (Wood, 2002). This not only fails to differentiate reliance on petty commodity production for livelihood from peasant production of use values for self-subsistence, it also fails to appreciate that such market dependency is actually a form of entrepreneurialism. The author (Pimbert), like van der Ploeg (2008), thus appears to equate peasant production *tout court* with petty commodity production. In this way, there is a conflation of two separate categories: on the one hand, a structural reliance on petty commodity production arising from capitalist market dependency in order to secure family reproduction by means of commodity sales (at least on the 'downstream' side) and frequently with a view to capital accumulation; and, on the other, peasant family/community use value production to secure simple reproduction needs in episodic combination with the opportunistic, not compulsive, sale of surplus on the market. Capitalist *market dependency*, in other words the market acting as a compulsive force rather than as a non-essential opportunity (Wood, 2002), thus marks the key difference between peasant production of use values, a characteristic principally of the 'middle' and 'lower' peasantry, and market reliant petty commodity production, a structural feature of the 'upper' peasantry and family farms.[5] These market dependent petty commodity producers may be defined as small entrepreneurs since their production is intended to yield a market surplus both to reproduce the economic unit of the family and to accumulate capital.

There is a marked similarity here with the 'entrepreneurial' category of van der Ploeg (2008), who likewise gives insufficient weight to the importance of differentiating capitalist market dependency (the imperative to realize exchange value) from use value production for simple reproduction. Van der Ploeg (2008: 1) maintains that, as an apparent generality, peasant 'production is oriented toward the market as well as toward the reproduction of the farm unit and the family' (in other words, *all* 'peasants' are fully oriented toward the market). This basically fails to appreciate, however, the desire of (lower and middle) peasants for predominantly non-commodified production of food staples as an ideal, and therefore fails again to discern the difference between market 'as opportunity' and market 'as compulsion'. Also, the differentiation between 'orientation toward the market as well as toward the reproduction of the family unit' is

4 Neoliberalism is a form of capitalism wherein the state-capital nexus re-regulates tendentially in favor of private capital, and 'corporate' and transnational capital in particular, at the expense of publicly owned or subsidized institutions and legal frameworks that may act to inhibit surplus value generation by these private enterprises. We define the class discourse of neoliberalism as 'hegemonic'. Neoliberalism may be contrasted with a more state-centric and market interventionist form of capitalism termed 'national developmentalism'. This is associated with what we term a 'sub-hegemonic' discourse.

5 'Lower' peasants have plots of land of insufficient size to support the family unit through subsistence production throughout the year – they are therefore obliged to sell their labour power off-farm, commonly to 'upper' peasants or to larger landowners. 'Middle' peasants have access to land of sufficient size to support the family without essential recourse to the market or to the sale of labour power – this represents the peasant ideal of autonomy and market independence; 'upper' peasants own sufficient land to be able to produce a consistent surplus for sale onto the market, such that their production tends to be increasingly oriented towards the realization of exchange value. They also frequently employ labour power from poorer peasants and may thus be described as small capitalist farmers.

non-sensical, because the latter is dependent on the former; the family unit may be reproduced on the basis of market-dependence or non-market-dependence. The key issue, however, is whether the peasant family unit can reproduce itself on the basis of non-commodified use value production, or whether it needs to sell commodities (including labour power) in order to realize exchange value so as to reproduce itself, i.e., market dependency. This differentiation is not really picked up at all by van der Ploeg. That is why there is a conflation between his categories of 'entrepreneur' and 'peasant', so that, in effect, all of van der Ploeg's peasants could actually be market-dependent upper peasants. This conflation leads van der Ploeg to describe market dependent petty commodity producers as the 'new peasantry', when this category might be more appropriately nominated 'ecologically-oriented family farm entrepreneurs'. Eric Wolf (1999), in his *Peasant Wars of the 20th Century*, supplies a rather more useful and accurate definition, clearly differentiating (non-market dependent) use value producers from (market-dependent) petty commodity producers. Here, 'peasants' may be identified with the former, and 'farmers' with the latter categories (this, of course, is *not* to suggest that non-market dependent peasants do not produce commodities to generate additional income to purchase goods that they cannot produce on the farm – this, however, is undertaken as an opportunity, not as a compulsion).

In a recent work, another author, Otero (2018), articulates a similar view to van der Ploeg (2008) and Pimbert (2018). Thus:

> *there is the possibility for petty commodity producers to become peasant entrepreneurs successfully incorporated into the market. These are family farms and farmers whose activities may include export-oriented monocropping as well as mixed farming for local, regional, or even national markets. These producers are embedded in the market without being capitalist corporations… Entrepreneurial farmers may be best suited to engaging in a food sovereignty programme as such agriculture can also be ecologically sustainable. Their production is oriented to the market, but their logic of production is still imbued with a moral economy. In this moral economy, the market will no doubt represent an ongoing and harsh context in which only a few will win. Because entrepreneurial farmers are content with recovering costs and gaining the equivalent of self-attributed wages, however, their numbers could be much greater than only capitalist farms; they seek simple rather than expanded reproduction, as in capital accumulation.* (p. 48, 49)

The full implications of this line of argument are not really drawn out, however, and, as such, Otero's position appears somewhat naïve. The farmers in question are subordinate to the compulsive and competitive pressures of capitalist market dependency. This obliges them, whether they seek simple or expanded reproduction, to minimize costs and maximize exchange value, leading to the same strategy as van der Ploeg's 'entrepreneurial' farmers. This leads, in turn, to tendencies of farm amalgamation and consolidation. This process also entails farmer differentiation, with smaller farmers falling by the wayside and larger farmers engrossing and strengthening their 'entrepreneurial' strategy, or transforming into capitalist farmers employing labour. We can see, then, that the condition of market dependency generates a continuum between capitalist, 'entrepreneurial', and petty commodity production. Where it is based on these assumptions, it seems clear that political agroecology/food sovereignty cannot be considered to be anti-capitalist. Rather, it may be considered to be 'progressive' or populist ('alter-hegemonic') according to Tilzey (2018a). By contrast, peasant use value production autonomous from the capitalist market, Tilzey describes as 'radical'. Like van der Ploeg and Pimbert, then, it appears that Otero fails to differentiate 'progressive' (populist or 'alter-hegemonic') from 'radical' ('counter-hegemonic') food sovereignty, an assumption reinforced when Otero states that 'the food sovereignty program strongly advocated by *La* Via *Campesina* is the safest policy route for developing [*sic*] countries to take, raising small-scale and entrepreneurial peasants to a central productive and environmental role' (p. 57). By conflating 'progressive' (populist) and 'radical' food sovereignty, the populism of Otero and others thwarts attempts to move beyond capitalist market dependency, and the compulsion to realize exchange value rather than meeting social and ecological needs. Like that of Pimbert and van der Ploeg, Otero's critique appears to be directed more against neoliberalism than capitalism *per se*.

More specifically, Otero invokes a variant of agrarian populism which may be identified as 'national-popular' (Tilzey, 2019a), or what otherwise may be termed a 'sub-hegemonic' agricultural policy stance (see Tilzey, 2006, 2017, 2020b) associated with the 'developmentalist' state.[6] Family farms are here viewed as the pivot of national development, fomenting a 'farmer road' to capitalism (Lenin, 1963; Byres, 1996) by means of a process de Janvry (1981) has described as 'sectorally and socially articulated development'. It was the re-invocation of this development model against the neoliberal tide in 1980s' Mexico (and elsewhere in Central America) that gave rise to the term 'national food sovereignty' (Edelman, 2014), a strategy of an interventionist and reformist state to engender synergistic domestic relations between the agricultural and industrial sectors and rising employment. This was seen to entail a virtuous spiral of increased food production, industrialization and off-farm employment, increased farm productivity, income, and mechanization, further surplus to feed a permanent off-farm workforce, and so on. Such a 'farmer road' to capitalism tends to involve, however, the *demise* of the (middle and lower) peasantry (if not of family farming), since it entails, through class fractional differentiation, the transmutation of the upper peasantry into fully-fledged commercial petty commodity producers, on the one hand, and the lower and middle peasantry into wholly proletarianized workers, on the other. Such a 'farmer road' transition has occurred to its fullest extent in the global North, and is indeed a defining characteristic of the North, with the full commercialization of farmers, and the full proletarianization of the former peasantry

6 Sub-hegemonic agrarian class positionality envisages the commercialization of peasant production as productivism through state protection from overseas competition and state support for agricultural intensification. It thus focuses on the preservation of an upper peasantry against hegemonic agrarian oligarchies and transnational corporations, but this focus at the same time entails the tendential elimination of the middle and lower peasantries. Alter-hegemonic positionality is similar to sub-hegemonic in terms of peasant dynamics, but focuses on 'conventionalized' agroecological or organic production rather than productivism. Counter-hegemonic positionality envisages an abrogation of capitalist market dependency by a reversal of primitive accumulation so that there is generalized access to land for agroecological use value production.

linked strongly to imperialism and nationalism (see Tilzey, 2020a). While Otero is evidently an advocate for the peasantry, and even for an agroecologically-oriented peasantry, he appears unaware of the adverse policy implications of national developmentalism ('national food sovereignty') for the bulk of lower and middle peasants.

Otero's sub-hegemonic policy stance may be differentiated from, although overlapping in certain respects with, one more characteristic of agrarian populists such as McMichael (2013), van der Ploeg (2008), and Pimbert (2018). This, as noted, we nominate an 'alter-hegemonic' positionality (Tilzey, 2017, 2018a) in which family farms are considered emblematic of an essentialized 'peasantness' as an autonomous 'mode of production' to which the principles of localism, 'territory' and ecological sustainability are key. Alter-hegemonic discourse, as noted earlier, may be seen not so much as anti-capitalist as anti-neoliberal, constituting an important strand of food sovereignty and food democracy thought which, again, we have identified as 'progressive' (Holt-Gimenez and Shattuck, 2011; Tilzey, 2017) rather than 'radical'. A sub-hegemonic positionality may also be distinguished from counter-hegemony. The latter we consider to be anti-capitalist, involving transformation of social property relations through the assertion of common and democratic control over the means of production. Such control is directed to the production and distribution of use values for fundamental human need satisfaction (while taking full account of non-human nature), rather than to the generation of exchange values for private appropriation (see also Wach, 2021). Where this counter-hegemony is implicated in food sovereignty, it entails agroecological and family/communal-based production to meet fundamental food needs of all citizens as a matter of priority, and represents what may be termed 'real' autonomy, or 'true' alterity (from/in relation to capitalism), radical food sovereignty, and *substantive* food democracy (Holt-Gimenez and Shattuck, 2011; Tilzey, 2017, 2018a, 2019c).

The remaining principles delineated by Pimbert above, relate to issues of democratization, local/ecological embedding, and an assumed dichotomy between 'state' and 'market'. The first two of these are laudable enough as normative aspirations, but, unfortunately, they give us virtually no idea as to the nature of the politico-economic systems (social-property relations) that both structure, and act as formidable constraints on, the transformation of agrarian social-property relations toward such radical and deliberative/participative democracy. Similarly, to invoke localization and ecological 'embedding' places an emphasis above all upon geographical scale (important though this may be) to the neglect of a consideration of differential power and class relations within 'local' social-property relations which may serve to seriously subvert, and which themselves need to be subverted by, transformational movements toward a politically egalitarian agroecology/food sovereignty. Rather than being exceptions, such differential power in social-property relations is actually pervasive in both the global South and North – but these realities are elided in the 'rose-tinted' view of local and grassroots initiatives expressed above, routinely deploying unspecific and populist terms such as the 'people' and 'citizens'. This then informs the assumed dichotomy between 'state' and 'market' in this populist ontology, with 'civil society' occupying those spaces unoccupied by the former. In reality, state and market are intimately interwoven in capitalist social formations (states) as the 'state-capital nexus' (see Tilzey, 2018a, 2019b), their *appearance* of separation being a reification of liberal and neoliberal episodes in capitalism, whereby the state 'retreats' from more 'positive coordination' of the economy in order to 're-regulate' in relative favor of private capital (Tilzey and Potter, 2007). The commensurate retreat of the capitalist state under neoliberalism from welfare and social functions at local level (Jessop, 2002 terms this 'de-statization') simultaneously leads to the 'occupation' of the resulting 'vacuum' by NGOs, volunteer organizations, self-help groups, etc., – in short, what is now commonly referred to as 'civil society'. The appearance of 'autonomy' of such groups is largely illusory, therefore, since they are at base functional to neoliberalism by stabilizing those parts of society vacated by the state and of little interest to capital. Should such 'autonomy' and associated groups prove too 'radical' and start to question or challenge the circumscribing parameters of existing social-property relations, the state-capital nexus then typically steps in to find ways and means to re-stabilize the status quo in favour of capitalist social-property relations (This has happened widely in Latin America, for example, where a focus on 'ethno-development' initiatives and cultural recognition of indigenous peoples, within the context of so-called 'neoliberal multiculturalism', has attempted to deflect more radical demands for transformational change to social-property relations by the indigenous peasantry [see, for example, Bretón, 2008]).

Salient among the shortcomings of the above 'populist' ontology informing 'food democracy' is, then, the assertion that discursive, deliberative democracy can of itself foment a transition toward a more ecologically and socially sustainable mode of production, embodied in agroecology, with the 'food citizen' here acting as the main political protagonist of 'food democracy' (Hassanein, 2008; see Holt-Gimenez and van Lammeren, 2019, and Tilzey, 2019c for critique). Symptomatic of this focus on discursive to the neglect of material power, it is the strength of democratic argument of itself, divorced from issues of ownership of, and access to, the basis of livelihood (that is, to the 'means of production'), that is asserted to be the way to ensure transition to 'food democracy'. By divorcing discursive democratic praxis from the transformation of wider social-property relations, 'populist' agroecology leaves much of capital's power, and more broadly that of the state-capital nexus, intact. We should recall again that capitalism and market dependency are predicated on the separation of the mass of citizenry from the means of production, most importantly from land; unless this basic social property relation of capitalism – the private appropriation of land – is addressed and redressed, the democratic praxis of 'food democracy' will be of little avail. In the same way, the promotion of ('subjective') citizen 'positionality' to the detriment of ('objective') class 'position' obscures deep-seated power imbalances, resulting in their perpetuation. This refers especially to the deep power imbalances between the global North and global South [in reality a relation of imperium to periphery (see Tilzey, 2020a)], which proposed unity of 'citizen interest' between the two functions acts only to disguise and, therefore, to reproduce.

Populist discourse as food democracy continues to be trapped, therefore, in the problematic of 'right to benefit', consequently effacing the material bases of 'ability to benefit' (Ribot and Peluso, 2003). Stated otherwise, the capacity to derive wellbeing and livelihood from institutions and resources is moulded strongly by class (here subsuming relations of exploitation that are manifested in racial, ethnic, gender, etc. discrimination), together with contextual social-property relations upheld by the state-capital nexus. Thus, subverting the neoliberal food regime requires the dismantling of essential, material, or *structural* (politico-economic), and not simply discursive, underpinnings of capitalist social-property relations. Stated differently, building an anti-capitalist food regime, or substantive *food democracy as radical agroecology*, will rely upon 'class struggle' to challenge both the

discursive *and* material predicates of capitalism, the latter entailing the re-unification of the mass of citizens with land as the basis for ecologically sustainable and socially equitable production of use values (Tilzey, 2019b,c).

Thus, even at the 'anti-market', communitarian end of this 'alter-hegemonic' spectrum, such as entirely laudable initiatives in, for example, 'proto-regenerative' farming based in cooperative and non-market-dependent agroecological production, there is a tendency to over-emphasize the actual and potential impacts of such alterity on the status quo, as a result of a failure to understand the *material* (as well as the discursive/ideational) foundations of prevailing social-property relations and the 'imperial mode of living' (Brand and Wissen, 2018). The post-Marxian frame deployed to analyze such 'alternative food network' initiatives typically assumes, erroneously, that capitalism is merely an ideational (discursive) system, and that, consequently, a mere shift in ideology can secure the necessary transition to agroecologically-based sustainability (see, for example, Leitheiser et al., 2022).[7] Thus, 'local action' by, and 'local autonomy' for, 'communities' through 'territorialization' are seen to be key desiderata for sustainability, effectively ignoring the material constraints of social-property relations defined by the state-capital nexus that define the possibilities for such action. 'Progressive' ideas that motivate alternative initiatives in agri-food are reconfigured in ways that fail to challenge the state-capital nexus and remain, wittingly or unwittingly, conformable to market dependency. Thus, 'alternative' forms of agri-food production and consumption such as fair trade, organic, geographical identification, re-territorialization, etc. conform to the assumptions of market capitalism (albeit of a more 'embedded' variety) while masquerading as alterity. Even where overtly critical of capitalist market dependency, the post-Marxian frame of alternative food network (AFN) discourse effectively hobbles deep critique of capitalist social-property relations and, thereby, thwarts deeply transformative praxis. Such praxis then becomes part of protest (negativity) that is artificial, since it has lost the capacity to critique both the hegemonic material *and* discursive structures of capitalism [this is termed 'artificial negativity' by Bonanno and Wolf (2018)].

Two recent interventions in the AFN literature attempt to address some of these deficiencies. Misleh (2022) engages with the structuring constraints of the neoliberal food regime while recognizing the dialectic of varying forms of opposition as a Polanyian 'double movement'. While thereby recognizing the 'compromise' as the outcome of contestation that food regimes represent, and therefore the inherent 'incoherence' of these entities (see Tilzey, 2018b), the Polanyian approach adopted by her nonetheless loses focus on what the class content and interests of these constituent contestants might comprise, for example, as hegemonic, sub-hegemonic, alter-hegemonic, and counter-hegemonic concerns as we define them in this paper. While the resulting hybridities as the outcome of interest group contestation have an undoubted empirical reality as food regimes or national food systems, the Polanyian double-movement problematic fails to pinpoint what real autonomy or true alterity in relation to capitalism and the state-capital nexus might entail (see Tilzey, 2017, 2018b). Empirical reality should not be conflated with normative critique.

More promising in this regard is the intervention by Rosol (2020). She points both to the nature of true alterity as requiring profound changes in economic practices as alternative economies (in effect, a change in social productive relations/social property relations in Marxian terminology), and to the severe constraints upon the realization of such alterity, as cooperative non-capitalism, within the global Northern context she examines – especially access to land that is largely monopolized by capitalist agricultural enterprises. Unusually for the AFN literature, Rosol's approach may be described as one approximating to counter-hegemony on our definition, although one that could perhaps be strengthened by a greater focus on class relations and a contextualization of the global North (characteristically the home of AFN discourse) in relation to the global South by reference to the imperial mode of living (see below).

The elaboration of political agroecology by de Molina et al. (2020) constitutes an important intervention in this debate *on alterity*, and it is vital to note strong overlaps in normative position between this paper and that articulated by these authors, especially in the foregrounding of autonomy from capitalist market dependence a key desideratum of political agroecology. These authors thus appear to lie at the radical end of the alter-hegemonic spectrum. However, while concurring with the normative political agroecology that de Molina et al. envisage, we discern a number of shortcomings in the ontology of social relations delineated by the authors, deriving from their self-avowedly agrarian populist stance, that have the unfortunate effect of rather compromising the possibility of attaining their proposed societal and ecological ideal. These deficiencies we may identify as:

- In typical agrarian populist fashion and following McMichael (2013), a strong and simple binary between trans-nationalized and essentially stateless capital, embodied in the so-called 'corporate food regime', on the one hand, and a 'multitude' of potentially counter-hegemonic citizens on the other. There is thus no conceptualization of differentiated capitalist interests (for example, contestation between nationally-oriented capital and transnational capital) or of differentiated farmer/peasant interests, such as we have delineated in this paper, between hegemonic, sub-hegemonic, alter-hegemonic, and counter-hegemonic class fractional positionalities. Thus, for de Molina et al. all family farmers are really at heart peasants just waiting to break out of capitalist market dependency to which they have been subordinated 'against their will';
- In line with the above binary and the assumed plenipotential character of capital, no real understanding of the state, in its relation to capital, as the *causal* motor of food regimes and their dynamics. We maintain, however, that the state and capital are not mutually exclusive entities but are rather conjoined as the 'state-capital nexus'. De Molina et al. (2020) portray the 'corporate food regime' as all-powerful and as something that imposes itself on states. However, in reality it is the state-capital nexus, and, in particular, the *imperial* state-capital nexus, that generates food regimes, and which controls their dynamics, not the other way around. It is therefore the state (the state-capital nexus) which needs to be the object of anti-capitalist movements, not the vague abstraction of a 'global' and stateless food regime;

7 In fairness to Leitheiser et al., Leitheiser's subsequent work with Vezzoni (Leitheiser and Vezzoni, forthcoming) recognizes that transformative social praxis needs to operate both on the political ideational and economic levels to effectively reorganize social relations.

- Perhaps surprisingly, no understanding of the relationship between agricultural intensification, the tendential disappearance of the peasantry, and the development of urban-industrial modernism. These elements are intrinsically linked, however. The intensification and capitalization of agriculture are necessary counterparts of high entropy urban-industrial capitalism and modernism more widely. This whole edifice (not merely the food system) needs to be confronted through a programme of equitable de-growth if agroecology and sustainability are to be secured;
- Because the putatively stateless corporate food regime, rather than the state-capital nexus, is seen to be the prime mover of unsustainability, consequently no understanding of the differential power of the state within the global capitalist system manifested as imperial-peripheral relations. It needs to be emphasized that the peasantry has a differential location in the periphery because of the existence of these imperial-peripheral relations (see Tilzey, 2020a). Again, de Molina et al. assume that the state is simply subordinate to the 'corporate food regime' and that all states and citizens are equally 'victims' of it whether in the global North (imperium) or global South (periphery). This, we suggest, is profoundly to misidentify causality.

We are now in a position to summarize the above political/ontological shortcomings of agrarian populist or alter-hegemonic food democracy and political agroecology:

Firstly, the 'political' region is reified, leading to a focus on discursive elements at the expense of the material, or structural, social-property relations underpinning capitalism. That is, 'populist' food democracy highlights the 'democratic deficit' while ignoring 'relations of production and exploitation';

Secondly, a theory of the state is lacking, or is very truncated. The state is conceived in an essentialist manner, commonly as a 'public' entity counter-posed to the 'private' market, rather than as a 'social relation condensing the balance of class interests in society' (Poulantzas, 1978; Jessop, 2016). An exemplar of this approach is the volume entitled *Public Policies for Food Sovereignty: Social Movements and the State* (Desmarais et al., 2017). Alternatively, the state may be seen as intrinsically autocratic and oppressive as per the anarchist tradition (for example, Scott, 2009) which, while of course frequently true, fails again to understand the state as a class relational entity [embodied in the notion of the state-capital nexus (Tilzey, 2019b)]. These autocratic and oppressive characteristics are seen to be the result of scalar aggrandizement, such that a 'return to scale', that is, 'localization' and 're-territorialization', is construed to be intrinsically beneficial. While this may well be true 'ecologically', 'politically' this is less convincing since power differentials and exploitation frequently exist at the 'local' level;

Thirdly, and closely related to the foregoing, there tends to be a denial of the significance, or even existence, of 'class' and 'class struggle,' the assumption being that 'civil society' and 'democracy' have somehow transcended 'class', and that issues of gender, ethnicity, and race are now more 'important' than class, as if they can somehow be conceptually divorced from the latter as a power relation;

Fourthly, and related again to the above, there is a binary conceptualization of contestation between the so-called 'multitude' of civil society and the 'corporate food regime' (McMichael, 2013). Here, the 'state' is enjoined to 'regulate' corporate capital and 'protect' 'citizens' in the manner of a Polanyian 'double movement'. This is symptomatic of a portrayal of class-divided society as a unified citizenry, a deficient conceptualization of the state-capital nexus (see above), and a simplified theory of capital's nature as putatively unified, corporate, and thoroughly transnational;

Fifthly, an appreciation of the division of the capitalist world system into an imperium (the global North) and a periphery (the global South) is essentially lacking. Under the system of the 'new (neoliberal) imperialism' (Biel, 2000; Smith, 2016), however, the imperium sustains consumer, welfare, and liberal democratic benefits at cost to the periphery, whence the majority of primary commodities and surplus value is now extracted by 'unequal exchange' (Carchedi and Roberts, 2021). The imperial state-capital nexus is also the author of food regimes. It is a common assumption of proponents of populist agroecology, by contrast, that the 'multitude' as a whole, whether in the global North or South, suffers equally from the depredations of the 'corporate' food capital, and that the responses of each will, or should be, of a similar kind;

Sixthly, there is a tendency to inflate the significance of the challenge that local and 'autonomous' agroecological initiatives may pose to neoliberalism/capitalism. Frequently, however, such initiatives have an existence that is marginal to capitalism. Indeed, these initiatives may often be accommodated to processes of neoliberal 'de-statization,' in which selected state responsibilities are devolved and divested by the state-capital nexus to community-based schemes, but commonly without requisite levels of funding and political control. This is related to the quest for indigenous autonomy, encapsulated in the notion of 'neoliberal multiculturalism'. In asserting political authority in selective areas of state territory and/or over particular state decentralization initiatives, indigenous movements have placed faith in their capacity to moderate the impacts of capitalism, and, more specifically, state support for extractivism (especially in the global South), while failing to give due consideration to the ways in which this might compromise their potential role as agents for a radical transformation of social property relations. Indigenous groups have striven for ethnic autonomy, both discursively and materially, by means of asserting claims to discrete spaces 'apart' from the state and associated with calls for 'autonomous' governance of territory – the 'defence of territory' problematic. This comprises the quest for 'autonomy' 'outside' capitalism and the state, not by confronting capitalism/the state. This differs from other subaltern actors (mainly semi-proletarian peasants lacking access to 'autonomous' spaces) directly impoverished by the neoliberal state-capital nexus, and this interest difference weakens coalition building between indigenous and non-indigenous subalterns. Thus, struggles for peasant 'autonomy' (that is, adequate access to land) have not necessarily attracted strong solidarity from indigenous movements, and vice versa (Veltmeyer and Petras, 2019; Bretón et al., 2022).

Constructing a Marxian conceptualization of substantive food democracy as radical political agroecology and understanding its social relational basis

By contrast to the agrarian populist, or alter-hegemonic, conceptualizations of agroecology and food sovereignty, substantive

food democracy as radical (counter-hegemonic) political agroecology (or radical food sovereignty) invokes, in practice or by implication, a Marxian, or social relational, understanding of capitalism and agrarian transitions (Tilzey, 2018a, 2020b). Capitalism, according to this understanding, arises from labour power commodification as a result of expropriation of peasants from their means of production – or what Marx termed 'primitive accumulation' (Marx, 1972). This process of expropriation subordinates the 'classes of labour' to the condition of capitalist market dependency (Kautsky, 1988; Wood, 2002; Bernstein, 2009) as the only means of survival. Radical political agroecology/food sovereignty envisages an abrogation of this condition, or the prohibition of its realization (in the case of 'kin-ordered' indigenous groups), as a prerequisite for social and ecological sustainability through supersession of capitalist social-property relations, and of the state-capital nexus as the bulwark underpinning these relations. To understand the causal basis of radical political agroecology/food sovereignty and to take a strategic relational perspective (Jessop, 2016) on the opportunities and constraints surrounding its potential realization requires, we suggest, an improved theorization of capital-state dynamics as nationalism, imperialism, and now sub-imperialism. This confers a better understanding of character and importance of market dependency and primitive accumulation as the basis for their own subversion through counter-hegemonic agency (Tilzey, 2019a,b, 2020b).

In developing this Marxian conceptualization of capitalism and agrarian class dynamics, we articulate theory which integrates so-called 'Political Marxism'(Brenner, 1977, 1985; Wood, 1995, 2009; Mooers, 2014), neo-Gramscian International Political Economy (Cox, 1987; Bieler and Morton, 2004), Regulation Theory (Boyer and Saillard, 2002; Sum and Jessop, 2013), Poulantzian state theory (Poulantzas, 1978), and the work of Wolf, especially as embodied in his *Europe and the People Without History* (1982). This conceptualization also draws on the important work of Marini (1972, 1974, 2022) on dependency, imperialism and sub-imperialism, in which he sees the peripheral super-exploitation of labour and nature undertaken by export-oriented capitalism as being necessary to sustain the industrial capitalism and high consumption of the imperium and sub-imperium.[8] In this paper, 'class struggle', capital, and the state remain central and dialectically related categories. These 'political' dynamics of 'structured agency' (Potter and Tilzey, 2005) are conjoined to the 'ecological' dynamics of biophysical 'sources' and 'sinks' (and related and discounted 'costs' and loss of livelihood which are located differentially in the global South) through political ecology (Tilzey, 2018a). These analytical tools enable key parameters of the agrarian question, the peasantry, and food security/food sovereignty within capitalism to be defined as approximately state-level arenas of contestation within the global centre-periphery structure. Here the state, despite differential power and capacity between core (imperium) and periphery and the global disciplining force of imperial capitalism, is considered to remain the key medium for the regulation and institutionalization of social-property relations and, hence, for understanding the possibility for any social relational change toward substantive food democracy and radical political agroecology (Tilzey, 2017, 2018a).

Poulantzas (1978) and Wolf (1982) are especially helpful in this conceptualization, since they consider the state itself to be a social relation, comprising the condensation of class forces and interests in the social formation. Here, the state affords the institutional space in which the various fractions of the capitalist class, in addition possibly to other classes, conciliate or compromise to form longer-term strategies and alliances, while simultaneously disorganizing non-capitalist classes through various means of co-optation and division. Here, to recapitulate our earlier points, we may define the principal class groupings as *hegemonic* (neoliberal, export-oriented), *sub-hegemonic* (nationally-oriented capital and national food producers), *alter-hegemonic* ('green economy' producers), and *counter-hegemonic* (anti-capitalist groups demanding equality of access to the means of production, and production to meet social [and ecological] use values, rather than exchange values).

In the previous section, we deployed this body of theory to critique agrarian populism (principally, alter-hegemony) as a putative resolution to the 'political' and 'ecological' contradictions of capitalism in its alimentary dimension. It is important to note here that this body of Marxian theory, while having certain analytical similarities to the influential work of Bernstein (2010, 2014), in actuality differs from his oeuvre in three important respects:

First, conceptually and normatively, the advocacy of radical political agroecology in this paper (and arising from a particular understanding of political ecology developed in Tilzey, 2018a) as a response to the existential crisis of climate change, ecosystem collapse, and endemic food/nutritional insecurity and precarity, is quite 'un-Bernsteinian'. Bernstein still cleaves at base to a productivist 'progressivism' to the extent that development of the forces of production and industry is seen to be a necessary prerequisite for poverty alleviation and a transition to socialism. This is quite an 'orthodox Marxist' position and ultimately differs little from the sub-hegemonic 'national developmentalism' described earlier. Here, the peasantry, analytically and normatively, is seen to be an unnecessary anachronism, an irrelevance surviving by default, and awaiting transformation into an agrarian or industrial proletariat. By contrast, the present paper advocates an 'alternative-developmentalist' (as opposed to 'post-developmentalist', see, for example, Vergara-Camus, 2014) position founded in eco-socialism, in which the peasantry and indigenous people are *pivotal* to socially equitable and ecologically sustainable 'alternative' development;

Second, Bernstein tends to adopt quite a narrow 'social relations of production' approach which fails insufficiently to theorize the relation between class position ('class-in-itself') and class positionality ('class-for-itself'), a vital consideration in attempting to delineate 'political' responses to 'economic' contradiction, marginalization, and exploitation of subaltern classes. This is where the present paper, by contrast, starts to deal with issues of 'structured agency' and the articulation of reflexive political discourses and action as unrest, rebellion, revolution, etc. This relationship between material circumstance and discursive response is to articulate a 'cultural political economy' somewhat akin to Sum and Jessop (2013), for example, something that takes this paper beyond Bernstein's purview. It is worth noting here, with respect to the well-known debates

8 The sub-imperium comprises states, such as China, India, and Brazil, which, though subject to exploitation by the imperium of the global North, themselves exploit other states in the periphery and their subaltern classes. Thus, China is now prominent in neo-extractive activity throughout much of the global South.

between Bernstein and McMichael, the essential non-resolution, and polarized nature, of this dialogue within the parameters defined by these two scholars, and the consequent perpetuation of a 'binary' between the agrarian populists (McMichael) and the proletarianists (Bernstein). The present paper attempts to carry the debate forward into new conceptual areas: by accepting Bernstein's differentiated class positions within the peasantry, but advancing this by means of articulating 'political' class positionalities and discourses in terms of what are here termed counter-hegemonic, sub-hegemonic and alter-hegemonic oppositional interest stances. This attempt to translate 'objective' class position into 'subjective' class positionality in relation to food sovereignty discourses, especially at the level of state politics, has not really been undertaken before (Holt-Gimenez and Shattuck, 2011 make a start, but their framework is pretty broad brush and only defined at international level). These class-based discourses are developed at greater length in Tilzey, 2017, 2019b.

Thirdly, Bernstein, with his focus on social relations of production 'narrowly conceived', does not really concern himself with the relationship between capitalism and state dynamics, this relationship being a logical step from point two above. This, however, is a major preoccupation of this paper and marks out the present work clearly from Bernstein – as noted, this paper draws on neo-Gramscian theory, Regulation Theory, Poulantzian state theory, so-called 'Political Marxism', and on the anthropologically informed Marxian perspective of Wolf (1982). This development is innovative, and takes the arguments surrounding food sovereignty, and its multiple and contested understandings arising from differentiated oppositional discourses, in directions significantly beyond the polarized Bernstein and McMichael debate. We attempt below to delineate the relations between class positionalities (in relation to food sovereignty discourse, these comprise sub-hegemonic [national-popular], alter-hegemonic, and counter-hegemonic discourses) and understandings of and advocacy of forms of autonomy (alterity), building on, but taking further forward, the thinking of Bretón et al. (2022).

Having differentiated the theoretical position of this paper from that of Bernstein (while simultaneously acknowledging our debt to his class fractional acuity), we assert that the agents of counter-hegemony in the form of substantive food democracy, radical political agroecology and food sovereignty have a differential location in the global South, since this is the locus of the bulk of the peasantry, semi-proletariat, and indigenous groups whose enduring ties to non-commodified land provide escape routes from, or continued security against, the precarity of 'disarticulated' capitalism (de Janvry, 1981). This differential location of subaltern classes is intimately related to the imperialistic and sub-imperialistic character of capitalism as the 'imperial mode of living' (Brand and Wissen, 2018). These escape routes of subaltern classes take the form of the *synthesis* of the strategies of autonomy discussed in the next section (*viz.* 'political', 'economic' as market avoidance, and 'cultural/territorial' autonomy), while cautioning against strategies of market creation and integration within a capitalist context.

We contend that this differential location of the peasantry, semi-proletariat, and indigenous people (collectively, the subaltern classes) arises due to the failure of capitalist 'agrarian transition' in the global South to generate the complete proletarianization of subalterns (complete separation of workers from the means of production) that has typically characterized the global North (imperium) and parts of the sub-imperium (especially China). Rather, the agrarian transition has commonly been incomplete, with the peasantry, most often as a semi-proletariat, frequently retaining some measure of access to land, however residual. This desire to retain land is hugely reinforced by the general absence in the periphery of secure employment opportunities both within and outside the capitalist agricultural sector (de Janvry, 1981; Vergara-Camus, 2014; Vergara-Camus and Kay, 2017; McKay, 2018). This is largely due, in turn, to the dependent nature of capital accumulation in the periphery (Veltmeyer and Petras, 2000; Petras and Veltmeyer, 2016; Marini, 2022), enforced by the imperium and endorsed by the national agro-export oligarchies. The implication is that, while essentially the whole of Latin America, for example, has undergone a capitalist transition, the socially and sectorally disarticulated nature of the transition (de Janvry, 1981; McKay, 2018) entails a substantial percentage of subaltern class members retaining access to land and engaging in *non-capitalist* forms of production. These subaltern class members (principally the middle and lower peasantry) tend to sustain, not a proletarian, but rather a peasant class positionality. This is a crucial factor in explaining causality underlying radical agroecology/food sovereignty as social movements differentially located in the periphery. As a result of semi-proletarianization and precarity, we suggest that there is a *tendency* for a radical imaginary of food democracy, political agroecology and food sovereignty to emerge. This constitutes a counter-hegemonic positionality in which there is a demand for the equitable redistribution of land from capitalists and the upper peasantry (market-dependent petty commodity producers) to the middle and, especially, lower peasantry and precariat principally for the purposes of self-subsistence, at least in the first instance, as an insurance against market-dependent precarity. Such an aspirational agrarian transition represents a reversal of primitive accumulation and capitalist market dependency.

For indigenous and non-peasant populations (that is, populations that have retained 'kin-ordered' modes of production, as in much of the Amazon Basin, for example, and have never been subordinated, as peasants, to hierarchical 'tributary' or capitalist modes of production as in the Andes, for instance), the concern has been to 'defend the territory', along with cultural identity, against the incursions of the state and modernism – that is, to obviate the possibility of primitive accumulation occurring in the first place, rather than, as with the peasant claims, seeking appropriate access to land. While it might seem that peasant and indigenous non-peasant resistance to the state-capital nexus would be aligned, this has not always been the case, as we have elsewhere demonstrated (see Tilzey and Sugden, 2023). While the former tends to demand land reforms in their favour through change to social-property relations within the context of the state (in other words, autonomy from capitalist market dependency enabled by an interventionist state), the latter frequently advocate territorial integrity 'outside' the state (albeit with the acquiescence of the state) with an emphasis above all upon cultural identity and self-governance (in other words, autonomy from the state). Despite these differences, considerable potential for synthesis between the two does exist, as articulated, for example, in the foundational rationale of CONAIE (*Confederación de Nacionalidades Indígenas del Ecuador*) in Ecuador (see Tilzey and Sugden, 2023 for detail). *Inter alia*, this entails both resistance to, and reversal of, primitive accumulation in the form of egalitarian access to land and resources for sustainable living as *buen vivir*. Concurrently, this entails subversion of the state-capital nexus and termination of relations of subordination to the imperium and

sub-imperium manifest in destructive programmes of neo-extractivism that undergird the perpetuation of the imperial mode of living of the global North (Brand and Wissen, 2018; Tilzey, 2020a).

We argue that the capitalist agrarian transition in the global North (and increasingly in the sub-imperium) has, by contrast, involved full proletarianization, entailing full peasant expropriation and the general occupation of the land by capitalist and market-dependent petty commodity producers. The potentially counter-hegemonic nature of the proletariat here has characteristically been blunted by class co-optation into the state-capital nexus as 'labour aristocracy', as 'consumers', and by nationalism (often taking the form of social imperialism). These 'material rewards', the predominantly urban nature of the imperium, and the frequent subordination of class to nationalism, have been facilitated by 'unequal ecological exchange' (resource imperialism in the form of neo-extractivism), financial and industrial imperialism with the global South, sustaining the imperial mode of living (Brand and Wissen, 2018; Marini, 2022). These dynamics imply that, as a result of the general expropriation of the peasantry, rural anti-capitalist protest in the imperium is negligible in comparison to the periphery. In the global North, protest tends to take the shape, not of radical, but rather of progressive or populist anti-neoliberalism (rather than anti-capitalism): sub-hegemonic family farm-based productivism (neo-mercantilism) on the one hand (see Potter and Tilzey, 2005), and 'post-productivist' or 'green' farming on the other, undertaken by what we have chosen to term 'alter-hegemonic' (localized but market-dependent) producers, exemplified by the 'new peasantries' of van der Ploeg (2008). The deep irony here is that, although the imperium helps to sustain 'disarticulated' and distorted 'development' in the periphery and hence the continued, albeit precarious, survival of a largely semi-proletarianized peasantry, it simultaneously tends to thwart the resulting counter-hegemonic aspirations toward market autonomy by perpetuating peripheral state export and neo-extractive dependency.

How might it be possible to engender counter-hegemonic change, then, in the form of substantive food democracy and radical political agroecology and food sovereignty? We argue here that it is the role played by the precariat, peasantry, and indigenous people of the global South that may be pivotal. The differential location in the global South of these actually or potentially radical counter-hegemonic classes carries with it the opportunity to exploit weaknesses in the state-capital nexus, as demonstrated by the history of peasant wars (for example, Wolf, 1999; Vergara-Camus, 2014), all symptomatically occurring in the periphery of the imperial system. However, the difficulties involved in subverting the state-capital nexus even in the global South (let alone the global North) are daunting. These are amply exemplified by reference to the experiences of counter-hegemonic mobilizations in the Latin American 'pink tide' states, such as Ecuador and Bolivia. In these states, national-popular programmes of reformist capitalism have attempted to replicate the imperial mode of living (Tilzey, 2019a; Tilzey and Sugden, 2023), and have tended progressively to co-opt the counter-hegemonic groups (advocating substantive food democracy and radical political agroecology/food sovereignty) which had subverted neoliberalism in the early years of the new millennium. This is an essential characteristic of 'national-popular' alliances, entailing collaboration between sub-hegemonic (nationally-oriented bourgeoisie and petty bourgeoisie, including market-dependent petty commodity producers) and counter-hegemonic (anti-capitalist) movements to constitute political parties such as the MAS (*Movimiento al Socialismo*) in Bolivia and AP (*Alianza País*) in Ecuador. 'Reformist', or sub-hegemonic, capitalism comprises a more socially inclusive variant of the state-capital nexus, whereby the state redistributes to subaltern classes a percentage of the surplus value or rents it appropriates from capital, both for reasons of political legitimacy and in an attempt to widen the market for consumer goods.

Despite their socially inclusive motivations, these 'national-popular' regimes remain capitalist, however.[9] In alliance with imperial and sub-imperial capital, and to feed generalized consumerism in the global North, they have deployed the proceeds of neo-extractive accumulation to subvert agrarian radicalism through welfarism and job creation (in effect, proletarianization). Meanwhile, they have supported the upper peasantry through farm credit to foment productivism, while furthering primitive accumulation and the destruction of ecological ways of living in respect of the middle/lower peasantry and indigenous groups through the very process of extractivism, and by the failure to undertake egalitarian land reform and respect land rights (Petras and Veltmeyer, 2011; Veltmeyer and Petras, 2014; Tilzey, 2019a). This has entailed both the fragmentation of the strategies of autonomy detailed below, together with emphasis upon those elements of 'economic' autonomy (market creation and market integration) that encourage conformism to capitalist rationality and the de-radicalization of counter-hegemony. We argue in this paper that such de-radicalization is, however unwittingly, aided and abetted by agrarian populist and postcolonial interpretations of agrarian dynamics and framings of food sovereignty/democracy.

Populist and Marxian understandings of autonomy in agrarian livelihood strategies

The concept of autonomy is pivotal to understandings of the status of agrarian livelihoods in relation to the state-capital nexus, and perforce to strategies to secure autonomy, and therefore underlies all attempts to foster food democracy, agroecology, and food sovereignty. This section addresses some of the key differences in the conceptualization of autonomy between agrarian populist and Marxian frames (see Popay, 2022 for detailed examination of this concept in relation, especially, to the work of Tilzey and van der Ploeg).

Autonomy represents the demand for self-determination or self-definition against an entity (typically, the state/market, or state-capital nexus) that appears to thwart, or to actively undermine through exploitation, the aspirations and livelihood sustainability of certain classes, ethnic groups, etc. which suffer increased 'economic', 'political', and 'cultural' marginalization as a consequence. 'Economically',

9 The food systems of these regimes could be taken to represent examples of the empirical Polanyian hybridities, the outcome of contestation and compromise, referred to by Misleh (2022). However, the ongoing capitalist character of these systems and regimes, albeit mitigated by their reformism, continues to generate severe ecological and social contradictions, thus in no way diminishing the need for counter-hegemony as real autonomy or true alterity.

'politically', and 'culturally/discursively/symbolically', 'autonomy is presented as a political project that will address the grievances of subaltern classes which have been marginalized by capitalism and the colonial and post-colonial state by regaining collective control of their lives and becoming historical subjects' (Bretón et al., 2022: 5). This means, essentially, that the state-capital nexus fails to fullfil, or actively ignores/suppresses, its putative vocation of satisfying the aspirations and needs of all its citizenry – in other words, it differentially satisfies the interests of some of its citizens to the neglect or detriment of others. This reflects the class-bound and culturally conformist character (a certain permissible latitude notwithstanding) of the state-capital nexus, and the concomitant difficulty of building national consensus and sustainable livelihoods for all (within the peripheral social formation especially) when the national project remains one of building 'prosperity' through consumerism, economic growth, and capitalism (whether 'market oriented' or 'state regulated').

Autonomy may be seen to have three primary dimensions, the first two involving the 'political' and 'economic' dimensions between classes in the state-capital nexus (typically, in the global South, between the class triad of the peasantry, landed oligarchy, and the domestic bourgeoisie), the third involving the relationship between the state-capital nexus and indigenous 'kin-ordered' societies, the latter typically occupying areas remote from the main power and economic centres of the state. Autonomy, reiterating the previous paragraph, may, in the global South, be 'understood as a political project, a practice, and utopian horizon of the agrarian subaltern classes and marginalized ethnic groups. First, in its strictly political dimension, it [implies control of] the decision-making process and active participation in policy-making [affecting] the nation' (Bretón et al., 2022:1), including agrarian issues. Closely related to this is the concept of autonomy as a social/political *praxis* of social movements which, although realized differentially from organization to organization, is founded on the principle of horizontal participatory decision-making, marking a distinct departure from the traditional hierarchical relationships between leaders and membership of the 'old left'. The latter acts as a template for participatory and devolved governance of the state.

Second, in its 'economic' dimension, autonomy implies the ability to exercise governance over productive resources (means of production) such as land and water, entailing, *inter alia*, varying degrees of intervention in, regulation or transformation of, markets with a view, in many instances, to the defence, rehabilitation, and re-affirmation of communitarian principles of reciprocity, redistribution, and solidarity (Bretón et al., 2022). These may include structural transformation measures such as egalitarian land reform. Depending upon the depth of critique of the 'market' and upon class positionality (see Tilzey, 2017), movements may seek autonomy on the basis of three basic strategies: market avoidance, that is autonomy in relation to the capitalist market by the enactment of non-capitalist modes of production and distribution, and often underpinned by structural changes in social-property relations such as land reform – in other words, a *counter-hegemonic* strategy to confound market-dependency; market creation, that is autonomy within the market by creating new niches for 're-territorialized', re-localized, and 'ecologized' food consumption, while minimizing dependence on 'green revolution' inputs – in other words, an *alter-hegemonic* strategy principally for market-dependent petty commodity producers (upper peasantry, small family farms) as advocated most notably by van der Ploeg (2008) (see discussion above); and market integration, that is integration into nationally defined, protected, and supported food production, distribution, and consumption using principally green revolution technologies and insulated from neoliberalized overseas competition – in other words, a *sub-hegemonic* strategy, the principal beneficiaries of which are the market-dependent upper peasantry and commercial family farms (as with the alter-hegemonic strategy above). Market integration may also of course entail integration into neoliberalized/globalized food circuits (a *hegemonic* strategy) – for smaller producers, however, longer-term survival in such a context can only be secured through sub-contracting arrangements with larger producers (in the absence of other strategies as per those above), since the economies of scale that undergird the logic of such market productivism sooner or later spell the demise of the smaller family farm. Indeed, the use of the word 'autonomy', in an oppositional sense relation to the market in this context, clearly loses any meaning.

Third, autonomy, in its cultural and nationalist dimension, is proposed by indigenous people (or other ethnic groups such as afro-descendants) claiming and exercising collective rights to self-determination in relation to specific 'territories' (Bretón et al., 2022). In Latin America, for example, this quest for autonomy has been undertaken by both protest and negotiation with a view to reforming the nation-state and securing varying degrees of cultural recognition and devolved governance in favor of indigenous 'nationalities', in some measure 'insulated from' or 'outside' the state-capital nexus. While there may be strong overlaps here with agrarian issues pertaining to the peasantry in respect of the market avoidance strategy above, especially when the peasantry in question is largely indigenous (as in much of Mesoamerica and the Andes, with the Zapatistas in Chiapas perhaps being the archetype here), this form of autonomy may also be quite distinct from the 'peasant question' as 'market avoidance'. This is principally because 'cultural' autonomy is invoked in the main by non-peasant and traditionally 'kin-ordered' indigenous peoples (from the Amazon Basin, for example) which have never been integrated on a class basis into the colonial and post-colonial state, in marked contrast to the indigenous and non-indigenous peasantry which has had the status of an exploited subaltern class *within* the state-capital nexus. While there can, and should be, complementarities between 'peasant' and 'indigenous' autonomy, in practice they have often been distinct and, not infrequently, antagonistic. This antagonism has been abetted by a postcolonial and post-modern problematic that suggests the issue of indigenous autonomy is best studied and addressed through an 'anthropological' rather than a 'political economy' lens, focusing on questions of identity formation and cultural politics (Bretón et al., 2022). While there are certainly real differences between the two forms of autonomy as identified above, the postcolonial problematic reifies these divergencies as simply questions of 'cultural politics', failing to discern a 'cultural political economy' (Sum and Jessop, 2013; Tilzey, 2017, 2018a) that attaches equal importance to material *and* discursive dimensions in social dynamics and power (see notably Wolf, 1982 for an anthropology that integrates the 'cultural' and 'political economy' dimensions).

Agrarian populist agroecology, due to its failure to understand the capitalist market as a social relation exercising control through market-dependency (and instantiated in social-property relations upheld by the state-capital nexus) (Tilzey, 2017), tends to place emphasis upon the above strategies of market creation (alter-hegemony) and, to some extent, market integration, as significant means to secure autonomy [although we would again point to the strong focus of de Molina et al.

(2020) on political agroecology as entailing the abrogation of market dependence]. Postcolonial agroecology, for its part, involving an inclination to cultural essentialism, has tended to emphasize the third strategy of autonomy above, underlining the importance of cultural identity and territorial integrity at the expense of social equity and equality of rights to land (see, for example, Copeland, 2019a,b in relation to Guatemala). As suggested above, this selective emphasis has tended to militate against coalescence between non-peasant indigenous groups and peasant movements (even when largely indigenous in character), the latter seeking to address the agrarian question of egalitarian land redistribution and the socialization of the market. Through these selective emphases and the failure to appreciate potential synergies between 'peasant' and 'indigenous' strategies of autonomy, agrarian populist and postcolonial approaches have tended both to thwart subversion of, and to render movements vulnerable to co-optation by, the state-capital nexus.

CONAIE, in Ecuador, may be taken to represent an organization embodying mobilization to secure counter-hegemonic autonomy as substantive food democracy and radical political agroecology. CONAIE has recently re-emerged as a powerful indigenous/peasant agent advocating for equitable, anti-colonial/imperial, and ecologically sustainable (alternative) development. This 'resurgence' of CONAIE as a potent political force is attributable to the accumulated contradictions and resentments embodied in the unrest of impoverished semi-proletarian (and mainly indigenous) peasantry and peri-urban precariat, and the continued erosion of the land rights and livelihoods of lowland (kin-ordered/non-peasant) indigenous groups. This has arisen from the failure, first, of neoliberalism and then of neo-developmentalism (and now neoliberalism again) to address the livelihood needs of the majority peasant/indigenous population on an ecologically sustainable, socially equitable, and culturally diverse/inclusive basis. Following its long period of marginalization and crisis of representation during the Correa era of national-populism, CONAIE now appears to be recovering some of its former power and original vocation.

CONAIE, in its foundational vision, had sought to merge all indigenous (and peasant) people into a large, united pan-Indian movement dedicated to the defence of indigenous (and peasant) concerns and to agitation for educational, political, and social reforms, including recognition of land rights and a programme of land redistribution, funding for alternative development, recognition of indigenous languages, and support for bilingual education (Becker, 2008, 2012). Given that CONAIE was constituted as an expressly indigenous movement, postcolonial and 'new social movement' theorists have, however, tended to interpret it as an embodiment of the victory of ethnic discourse and identity politics over class analysis. Scholars such as Becker (2008, 2012), Ibarra (1992), and Zamosc (2004), among others, point out, however, that this assumption has always represented a spurious dichotomy and that CONAIE actually embodies a successful melding of ethnic and class positionalities. In fact, CONAIE proclaimed itself as an 'organization of oppressed and exploited people', and defined itself as 'anti-colonial, anti-capitalist, and anti-imperialist' (CONAIE, 1989: 281). In addition to demands for pro-peasant land reform, CONAIE also levelled criticism at industrialization, unemployment, racial discrimination, and existing housing, education, and health policies, while rejecting, at the same time, the 'racist' position of propounding an indigenous versus mestizo/white struggle that 'in its most extreme position advocated the expulsion of the invaders and a return to *Tawantinsuyu*' (the Kichwa name for the Incan Empire) (CONAIE, 1989: 281). Rather, CONAIE proposed a synthesis of class and indigenist positionalities in which struggle was to be organized on a class basis for the social relational transformation of society (that is, transformative social praxis operative at both the political/ideational and economic/material levels) while fostering independent ethnic organizations to defend indigenous cultures (Becker, 2008). As Zamosc (2004: 132) has noted 'the Ecuadorian case calls attention to the fact that class conflict continues to be a relevant factor in Latin American politics' and, far from being confined to 'indigenous rights' issues 'the Indian movement has transcended them, involving itself in broader battles over social issues and becoming a player in the contest for political power'. Becker (2008) suggests that, while ethnicity has a proven ability to engage and mobilize people in the shorter-term, it has demonstrated less success, when lacking a class dimension, in sustaining organizational energy over the longer-term. Specifically, he maintains that CONAIE realized greatest success when embracing, rather than denying, the class character of indigenous oppression. Among other authors contesting the dichotomization of ethnicity from class, Roper et al. (2003: 10–11) assert that 'the privileging of identity construction has…obscured the material conditions and structural challenges that shape social movement dynamics'.

Despite such debilitation of counter-hegemonic movements due both to sub-hegemonic national populism and to postcolonial 'ethnicization' of indigenous/peasant politics, resistance to the material basis of marginality manifest in primitive accumulation and precarity is again resurgent. Consequently, the delegitimation of the peripheral state-capital nexus is an ever-present possibility. While right-wing populism and a more extreme authoritarianism remain continual threats, as current events in Ecuador sadly demonstrate, it is probable that such delegitimation anticipates another surge of counter-hegemonic mobilization. This is indeed manifest in the current revival of CONAIE (and its political arm *Pachacutik*) in Ecuador and its re-articulation of counter-hegemony centered around opposition to neo-extractive accumulation, mobilization for equitable land redistribution, land rights, and political agroecology/food sovereignty, and advocacy of plurinational territorial autonomy, all entailing trenchant critique of capitalism and imperialism (Riofrancos, 2020; Cuvi, 2021).

Conclusion

This paper has suggested, *inter alia*, that agrarian populist claims that the state/market can simply be bypassed to secure agroecological 'autonomy' as a matter of democratic 'will' are either illusory, or are confined to those spaces somehow 'outside', or yet to be exploited by, the state-capital nexus.[10] This is captured in the aphorism: 'you may not want the state, but the state wants you'. This paper suggests that, ultimately, there is no alternative other than to challenge the state-capital nexus through 'class struggle' if the social-property relations of capitalism are to be subverted. We have suggested that this ambition,

10 This orientation towards interstitial local 'autonomy' is reinforced by the agrarian populist claim that it is not the state-capital nexus that needs to be confronted but rather an abstract entity denoted as the 'corporate food regime' (see de Molina et al., 2020).

entailing the subversion of capitalism's essence – primitive accumulation and market dependency – has been compromised by key elements of agrarian populism embodied in sub-hegemonic and alter-hegemonic ideologies. Salient among these elements are: a reification of the political 'region' and an accompanying failure to comprehend the material social-property relations underpinning capitalism; a lack of appreciation of the internal relation between capitalism and the modern state; a dominant binary conceptualization of contestation between the so-called 'multitude' of civil society and the 'corporate food regime', wherein a generalized citizenry acts to protect society and environment in the manner of a Polanyian 'double movement'; and a failure to appreciate the division of the capitalist world system into an imperium (the global North) and a periphery (the global South), with affluence in one pole dialectically related to poverty and precarity in the other. In relation to the latter, it is the imperial state-capital nexus which comprises the principal motor of capitalogenic 'political' and 'ecological' turbulence, generating the externalization of many ensuing contradictions onto the peasant/indigenous precariat of the global South. This, in turn, helps to explain the differential presence of counter-hegemonic political agroecology and food sovereignty in the global South; and the predominant (although by no means exclusive) locus of sub-hegemony and alter-hegemony (agrarian populism) in the global North, accompanied by a preoccupation with formal, rather than substantive, rights and democracy crystallized in the received discourse of 'food democracy' itself.

If, due to the operation of the 'imperial mode of living', the global South is indeed the predominant locus and the vanguard of counter-hegemony as defined in this paper, this then deepens the need for a coalescence of peasant and indigenous subaltern opposition both to comprador[11] and imperial (hegemonic) interests. Such counter-hegemony entails, in turn, a re-articulation of agroecology as an issue, not merely of strengthening democracy around the 'right to (ecologically sustainable) food' principle, but also, crucially, of confronting the capitalist social-property relations and resource imperialism that underpin ecological unsustainability, social inequality, and cultural marginalization. This, we argue, is ultimately an issue involving opposition to primitive accumulation and resulting capitalist market dependency by means of radical political agroecology and food sovereignty to secure substantive food democracy as real autonomy, through subversion of the state-capital nexus.

11 Export-oriented domestic capitalists.

Author contributions

The author confirms being the sole contributor of this work and has approved it for publication.

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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Joining the ideational and the material: transforming food systems toward radical food democracy

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This paper presents a conceptualization of radical food democracy (RFD) which links the diverse economies approach of Gibson-Graham with Tully's notion of diverse citizenship. Despite its invaluable contribution to theorizing the role of alternative food networks (AFNs) in transforming unsustainable industrial food systems, the diverse economies scholarship has been criticized for essentializing the autonomy of alternative economic practices—hence risking to confound emancipatory social change with punctuated forms of "local," "quality," "organic certified" products, which nevertheless remain embedded in market-mediated capitalist relations, and displacement and/or deferral of negative impacts. This paper aims to address such critiques, contending that the realization of RFD requires both (1) the experimentation with new economic practices that carve out food economies alternative to the working logic of capital accumulation, and (2) the cultivation of new political subjects capable of universalizing these particular struggles. After situating various existing practices associated with food democracy in a framework of various modes of democratic citizenship, we underpin our understanding of RFD with a theory of change informed by Bob Jessop's strategic-relational approach to social structures, agents' reflexive actions, and their contingency. Following a critical scientific approach to the social role of academics, this theoretical framework is illustrated using a case study from Germany. The empirical work draws on participant observation and semi-structured interviews with leaders of Community Supported Agriculture (CSA) cooperatives and Food Policy Council (FPC) networks conducted in Cologne, Berlin, and Frankfurt in 2018–2020. To conclude, this paper argues that the emancipatory potential of food democracy should cultivate both lighthouse alternative economic practices that are connected with people's everyday lives, and political imagination that dares to critically engage with existing institutions. Likewise, RFD praxis requires a constant back and forth between the ideational and the practical, the abstract and the concrete, the actionable and the analytical, to challenge both the symbolic-discursive and the material dimensions of capitalist agri-food systems.

KEYWORDS

radical democracy, food democracy, diverse economies, alternative food networks, strategic-relational approach, citizenship, transformation, agroecology

1 Introduction

Food democracy (FD) has been mobilized, in theory, as a lens for analyzing contemporary food systems and, in practice, as an organizing principle for transforming the dominant industrial agri-food system (Bornemann and Weiland, 2019; Behringer and Feindt, 2023). A variety of practices have been framed within the FD discourse, ranging from individual actions (e.g., ethical consumption, domestic cooking, or kitchen gardens) to collective organizations, like food cooperatives or Food Policy Councils (FPCs) (Bornemann and Weiland, 2019; Leitheiser et al., 2022a).

In line with other articles in this Research Topic, our paper draws attention to the (often made but under-theorized) link between food democracy and diverse economies of food, by also incorporating James Tully's notion of "diverse citizenship" (Tully, 2008a,b) via a theory of social transformation instructed by Bob Jessop's strategic-relational approach (Jessop, 2005, 2007, 2016). We argue that a move toward radical food democracy requires not only the cultivation of alternative economic practices, but also a simultaneous enactment of political imagination to engage with, re-politicize, reform, and transform the institutional frameworks in which those practices operate.

The diverse economies approach was developed by Gibson-Graham (2006) to explore alternative (i.e., post-capitalist) economic action and practice. The aim of this approach is to demonstrate existing possibilities for organizing *community economies* around interdependence (i.e., shared needs) through ethico-political negotiation. Gibson-Graham (2006) articulates this approach as a "politics of language," built on methods such as deconstruction and re-framing, which aim to create conceptual space in which community economies (i.e., negotiated spaces of economic interdependence) can flourish. Research on diverse economies of food has applied this analytical lens to the theorization of the role of alternative food networks (AFNs) in transforming unsustainable industrial food systems. Here, scholars use the diverse economies lens to support an understanding of AFNs as having transformative potential in the face of an industrial global food system dominated by powerful corporations, nation states, and multi-lateral institutions. The starting point of such work is "not simply to tally the number of ethically or ecologically oriented versus profit-oriented food practices," Sarmiento (2017, p. 489) argues, "but rather to be wary of theorizing conventional food systems in a way that obscures their contingency […]." Put differently, scholars aim to demonstrate that the transformative potential of local AFNs is not inherently neutralized by the dominant global system.

Neither, however, do these alternatives necessarily translate into systemic change or even rupture with hegemonic modes of socio-economic organization. Accordingly, scholars have raised concerns about the emancipatory potential of AFNs (Guthman, 2008; Tregear, 2011; Bonanno and Wolf, 2018), and the food democracy discourse more broadly (Tilzey, 2019). Critiques of AFNs resonate with Kelly (2005) argument that the diverse economies approach fails to reckon with the inherent limitations of localized alternatives—namely, that the exertion of instituted political economic power often deprives them of their basis for reproduction. Resistance efforts—ranging from territorial markets to urban gardens, to social movements' championing of peasant agroecology—are seen by some to be futile as they all fail to vanquish corporate domination in food systems (Bonanno and Wolf, 2018). By essentializing the autonomy of alternative economic practices, there is a risk of confounding emancipatory social change with punctuated forms of "local," "quality," "organic certified" products, which nevertheless remain embedded in market competition, displacement of negative impacts (and their deferral in time), and capitalist relations of production. In short, the alter-hegemonic shall not be confused with the counter-hegemonic (Tilzey, 2018, p. 170).

This paper aims to build on strengths of diverse economies while also addressing such critiques. To do so, we advance a conceptualization of food democracy beyond a "language of diversity." Hereafter, we refer to *radical* food democracy (RFD) mainly for two reasons. First, unlike more general qualifiers like "transformative," "true," or "just," RFD eschews notions of positive change toward an inevitably better future (Blythe et al., 2018). In other words, social change is historically cumulative but does not necessarily progress in a linear fashion. Second, in an era described by many scholars as post-democratic (Crouch, 2004; Swyngedouw, 2007), RFD denotes a radicalization of substantive principles of freedom and equality "through a critical engagement with the existing institution" (Mouffe, 2018, p. 25). It thus draws from the political theory tradition of radical democracy, as a horizon of agonistic contestation of institutionalized inequality, hierarchy, and domination. Accordingly, the exercise of RFD orchestrates the counter-hegemonic potential of existing alternatives exhibited in diverse economies of food. The aim is to move toward agri-food systems that exhibit more distributed, "collective and diverse forms of ownership with much greater levels of participation and scrutiny than exist at present" (Cumbers, 2020, p. 61). In this paper, we contend that the realization of RFD requires both (1) the experimentation with new *economic* practices that carve out food economies alternative to the working logic of capital accumulation and market-mediated commodification, and (2) the cultivation of new *political* subjects capable of universalizing these particular struggles to transform wider institutional frameworks (of, e.g., states and international economic law).

This argument also resonates with the second and third forms of fundamental social freedoms identified by Graeber and Wengrow (2021): the freedom to disobey (i.e., the freedom to exert agency), and the freedom to re-imagine and enact new ways of organizing society (i.e., the freedom of structuration).[1] RDF praxis, therefore, asserts the freedom to disobey the economic imperatives of mass retailers, the food industry, the Big Four of the seed oligopoly, outrageously wealthy philanthropists, commodity brokers in Chicago, and other players in the global market economy. Simultaneously, it also claims the freedom to reimagine social relations and experiment with alternative systems of food provisioning. To acquire counter-hegemonic force, however,

1 The first freedom that the authors identify is the freedom to move and roam, which is less relevant for the scope of this paper. The reason for identifying only these as fundamental freedoms, reflect the authors in a footnote, is that "many of what we consider to be quintessential freedoms—such as "freedom of speech" or "the pursuit of happiness"—are not really social freedoms at all. You can be free to say whatever you like, but if nobody cares or listens, it hardly matters" (Graeber and Wengrow, 2021, p. 624). This observation is key to distinguish between formal and substantive freedoms and, as such, it is central to our argument as well.

RFD should operate in a dialectic tension between the ideational and the material, engaging both reformist and revolutionary tactics in a trial-and-error experimentation with new modes of provisioning and new social arrangements (Jessop and Sum, 2016). This entails both the experimentation with new economic practices and forms of ownership, and the cultivation of political subjects in the form of increased participation and scrutiny of institutional frameworks.

In the remainder of the paper, we present a theory of social change based on a collapse of the agent-structure divide, as a context-dependent, strategic, and reflexive agency-within-structure (Jessop, 2005). Here, we also introduce various understandings of democratic citizenship and situate existing practices of food democracy according to Tully (2008a,b) conceptualization of modern and diverse citizenship, and into Forman and co-authors' (2022) retention of this theoretical framework. We find that both Tully and Jessop are complementary in their focus on *freedom* (i.e., the capacity to exert agency), making their work essential to our understanding of RFD. Tully (2008a,b) explicitly focuses on freedom in the face of imperial domination, whereas Jessop more implicitly frames a space for human agency within the recursive and reflexive maintenance (or transformation) of social structures. Furthermore, drawing on Foucault, both theorists extend relationships of governance beyond the legitimated centers of social control (e.g., sovereign states) to any relations where power is exercised in society. This perspective is crucial for an understanding of the various modes of food democracy we will describe below. We draw on these works to address our pre-analytic understanding of the long-standing structure-agency problem—i.e., the discussion about the space for agents to act within, to maintain, or to transform social relations.

Accordingly, in section 4 we argue that RFD praxis should not only work to contest and modify macro-institutional frameworks (i.e., of capitalism), but should also be connected to and rooted in the messy business of building concrete alternatives that satisfy people's everyday material needs (Mouffe, 2022; *cf.* Huron, 2018). This is also consistent with Wright (2010) post-capitalist theory of transformation, which favors a combination of interstitial (i.e., developing alternatives in the cracks of the current system), symbiotic (i.e., strategically using current institutions to support those alternatives), and ruptural/revolutionary strategies (i.e., overthrowing current institutions).

To illustrate our theory of transformation, section 6 draws on an empirical case study of a German network which encompasses Community Supported Agriculture (CSA, *Solidarische Landwirtschaft* in German) cooperatives, an initiative called CSX which aims to build local economies based on the CSA model, and territorial food policy councils (FPCs). Finally, we reflect on existing opportunities for a shift toward radical food democracy, that is, building "better" institutional frameworks based on existing alternative practices.

2 A strategic relational approach to democracy and citizenship

> "There is no critique as powerful as one whose time has come" (Jessop and Sum, 2016, p. 108).

Conceptualizations of citizenship and democracy do not only serve analytical purposes. They are also components of a theoretical toolkit that can be used to problematize and bring alternative governance relationships into being (Mouffe, 1992; Tully, 2008a,b). Such a contribution, we argue, also requires a theory of social transformation—that is, an understanding of how societies evolve, mutate and remodel themselves over time; and what forces, strategies, ideas, or coalitions bring about purposive transformative action. In other words, purposely enacting change requires an explicit pre-analytic conceptualization of what society is in the first place, as well as an explanatory framework of how (and what kind of) social change takes place.

2.1 The strategic relational approach

As a distinct position within critical realism, Bob Jessop's strategic-relational approach (SRA) advances a dialectical method to understand the co-evolutionary coupling (involving mechanisms of variation, selection, and retention) of structure and agency in space and time (Jessop, 2007, Ch. 1). As such, the SRA lays the groundwork for our theory of social transformation. It suggests that due to structures being strategically-selective—i.e., limits on agency are consciously imposed and instituted through social organization, e.g., of the state apparatus—agents are structurally-bounded—i.e., there is limited space within instituted organizations in which freedom can be exercised. And vice versa, since agents are reflexive about their strategies, structure's maintenance (or transformation) is action dependent.

In other words, "change is seen to reside in the relationship between actors and the context in which they find themselves" (Hay and Wincott, 1998, p. 955). Their actions, therefore, are both path-shaping and path-dependent, and unfold differentially according to conjunctural features, such as available resources, collective coordination, technical possibilities, competing interests, or subjugation to external authority. The ways agents reflexively understand themselves in relation to their structural context informs strategies and tactics for action. In Jessop's words, "the SRA is concerned with the relations between structurally-inscribed strategic selectivities and (differentially reflexive) structurally-oriented strategic calculation" (Jessop, 2005, p. 48). Put more simply, the SRA explains social change by focusing on how and why modes of social organization create conditions that constrain or enable different possibilities for people to act—to both exert agency *within* structure, and *over* the structure itself. This is an ever-present relationship, although it plays out over different timeframes in different territorial spaces.

According to Jessop and Sum (2016), it is by exposing the inconsistencies of sedimented social imaginaries that critical turns can "open the space for proliferation (variation) in crisis interpretations, only some of which get selected as the basis for "imagined recoveries" that are translated into economic strategies and policies" (Sum and Jessop, 2013, p. 402). This has both ideational and material significance. The re-politicization of discourse (i.e., the "semiotic" angle in Jessop's and Sum's approach to cultural political economy) throws a wrench into the instituted exercise of power. This creates space for variation which may lead to selection and, eventually, retention of new imaginaries, ideas, narratives, and discursive horizons of action. This is fundamentally a *learning process*, characterized by the development of new social practices which can

partially transform the context in which future strategic action will take place. We contend that it is in this feedback mechanism that civic modes of food provisioning can articulate a reorganization of structural selectivities. Alternative food practices that, at least temporarily, can dodge the demands of market-mediated capital accumulation effectively introduce patterns of incoherence into the reproduction of incumbent food systems.

In short, doing things differently changes the circumstances in which things are considered *different* in the first place; and while not *every*thing can possibly be carried out at any time, *some*thing can be always and iteratively changed.

2.2 Theorizing change in food systems

Section 2.1 has laid the groundwork for a theory of transformation based on Jessop's SRA yet, taking the unsustainability of the current world agri-food system as a starting point, the question remains: what should change? How? And who should carry out the change?

The answer put forward by the diverse economies scholarship is to look at "*what we have here at hand*" to address the "challenges of *now*, of "thinking the world" and enacting change" (Gibson-Graham and Dombroski, 2020, p. 3, *emphasis original*). This approach is reminiscent of prefigurative politics, a recurrent theme also in critical agrarian studies, as "an illustration of action-oriented radical practices that build components of a desired future in the present" (Tornaghi and Dehaene, 2020, p. 595). In the tradition of social anarchism, prefiguration performs a politics of interstitial transformation, to work out alternatives "in the cracks of dominant social structures of power" (Asara and Kallis, 2023, p. 59; *cf.* Wright, 2010).

However, this "will to change" requires, first, a conjunctural understanding of the context in which these practices are envisioned and enacted. Second, it also asks for a tactical vision on how particular instances which question an undesirable, oppressive, or unequal status quo can be universalized (Swyngedouw, 2007); in other words, how alternatives can go from ephemeral or niche, to mainstream. This requires what Mouffe (2000, 2018, 2022, *passim*) calls the articulation of "chains of equivalence," i.e., the construction of an "us," or a coalition built across diverse fragmented democratic struggles. Without meeting these two conditions, prefigurative politics remains at risk of voluntarism.[2]

The danger is not only, borrowing from Gramsci, to glorify the "optimism of the will" at the expense of the "pessimism of the intellect." There is also a risk of failure to appreciate the messy contradictions, cleavages, and disaggregating tendencies affecting "alternative economies," on the one hand, and dominant social structures and groups on the other hand. The latter point aims to avoid the tendency to exaggerate structural coherence that is shared by most Marxist social-scientific analyses (Jessop, 2016, p. 119). Since the reproduction of capitalist social relations does not proceed on autopilot, the reflexive capacity of alternative food networks (e.g., CSA, food policy councils, etc.) should take account of the differential privileging within their context of action. Following the SRA, the strategies, interests, tactical adjustments, and material possibilities emerging from the relational interplay of structurally-oriented agents are dependent upon their specific spatial and temporal horizons of action.

Luxemburg (1899) classic argument that cooperatives operating within a capitalist framework will eventually either evolve into competitive and exploitative tendencies, or dissolve (Bauwens et al., 2019) has been challenged recently (see, e.g., Bretos et al., 2020; Unterrainer et al., 2022). However, the gist of the argument remains: many cooperatives are not (at least entirely) able to evade the influence of capitalist competition on their modes of operating. Indeed, alternative forms of enterprise are not alone a *sufficient* condition for challenging and transcending exploitative relations. Yet we understand these alternatives as *necessary* in the meticulous (but slow) pursuit of a radically alternative institutional framework that is connected to the concrete needs of people's everyday lives (*cf.* Mouffe, 2022). To the extent that workers-owned cooperatives contribute to this struggle for institutional alternatives as part of an ecology of wider relations (Nunes, 2021), Luxemburg's argument applies only provided that the environmental conditions (i.e., "the capitalist framework") remain coherent in the long-term.

Societal change is the exercise of breaking with the habitual patterns reproducing social power configurations "in terms of the changing "art of the possible" over different spatiotemporal horizons of action" (Jessop, 2016, p. 55). In a sense, the cultivation of discontinuity with mnemonic patterns of social behavior goes to the core of the political, as the art of imagining the impossible by changing the conditions of what is conceived as possible in the first place (Swyngedouw, 2007). Practical efforts to build radical food democracy, therefore, should be understood as an act of re-politicization of the evolutionary dynamics shaping incipient food systems.

However, while acknowledging that "the future remains pregnant with a surplus of possibilities" (Jessop, 2005, p. 53), political action should remain cognizant of the strategic-relational constraints exerted by contextual elements. It is here, we argue, that diverse forms of FD practice can converge toward a food provisioning system organized around the contextual satisfaction of equally relevant material needs, in dialogue with the biophysical possibilities of the host ecosystem.

3 Political theoretical approaches to democracy and citizenship

> "The way we define citizenship is intimately linked to the kind of society and political community we want" (Mouffe, 1992, p. 225).

3.1 Modern and civil vs. diverse and civic citizenship

Here, we bring in Tully's distinction between modern/civil and diverse/civic citizenship. While Tully uses these terms interchangeably, we will refer to modern and diverse citizenship to avoid confusion.

2 Voluntarism here refers to the stereotypical view according to which society is solely the product of individual agency (Bhaskar, 1979). "If structuralism is one extreme," writes Spash (2018, p. 142), "then the other is pure voluntarism where actors are able to fully realize their intentions."

Tully challenges us to broaden our understandings of what citizenship is to create more space for agents to practically resist oppressive structures. Accordingly, not only is "another world" possible. Alternatives to imperialist relations can already be found in a multitude of social practices that exist around the globe if one accounts for the varying ways that "[c]itizens participate by 'having a say' and 'negotiating' how power is exercised and who exercises it" (Tully, 1999, p. 169). Understood as such, democratic citizenship incorporates a variety of practices in civil society in which citizens develop their own modes of organization as alternatives to the structurally-inscribed norms and rules of dominant institutions (e.g., the institution of "fair trade" in opposition to free trade; or the organization of cooperative enterprise).

Democratic governance, for Tully, describes any relationship where there is some form of power sharing and consent of the governed (that is, some mode of legitimizing the exercise of power, whether codified or otherwise). In this re-description, Tully aims to go beyond what he refers to as "modern citizenship": a narrowly legal-juridical status of individuals within an institutional framework (e.g., a constitution). He articulates diverse citizenship as a relational activity that is constituted not through a centralized code, but through distributed action carried out in accordance with others. Diverse citizenship is, therefore, not a relationship between state and individual—it is a relationship between a "free citizen of the "free city": that is, any kind of civic world or democratic "sphere" that comes into being and is reciprocally held aloft by the civic freedom of its citizens, from the smallest deme or commune to global federations" (Tully, 2014, p. 272). This includes a variety of organizational forms, spanning from cooperatives to civic associations, from global social fora to place-bound popular resistance to capitalist expansion.

Drawing on Tully (2008a,b) framework of modern and diverse citizenship (see Figure 1), Forman et al. (2022) outline five modes of democratic practice that span across what we frame in Figure 2 as the broader modern-diverse spectrum. Crucially, we understand this as a spectrum and not a normative dichotomy where one is better than the other. We draw inspiration from Mouffe (1992, 2000) and Forman et al. (2022) to present these modes as co-constitutive in an ideal form:

> Our starting point is based on the Aristotelian, Arendtian, and Gandhian premise that healthy and sustainable pragmatic representative democracies are grounded in and grow out of healthy and sustainable everyday participatory democratic relationships in which citizens acquire democratic ethical skills of interaction through trial-and-error practice and guidance by exemplary citizens. In brief, *civil democracy must be grounded in the civic democracy* (Forman et al., 2022, p. 440, emphasis added).

Modern democracy (as structurally-inscribed government strategies) ideally provides a framework in which diverse citizenship (as a way of life) can emerge, spread, and even flourish (Dewey, 2016; *cf.* Mouffe, 2000; Peter, 2021). In turn, practices of diverse citizenship, based on the republican ideal of freedom from domination, are necessary to hold modern democracy to account and ensure legitimate, non-arbitrary representation (*cf.* Bellamy, 2023). Here we find a dialectic tension between a relatively fixed (but never finally closed) modern constitutional framework and the transformative potential of diverse practices of free citizens.

3.2 Modes of citizenship and food democracy

The distinctions drawn in Forman and colleagues' conceptual framework are useful for outlining a wealth of political theoretical approaches to democracy and citizenship. Likewise, they also provide context to the various understandings and practices of FD. This should, again, contribute to a practical toolkit for those wishing to contest, reform and transform existing systems of food provisioning. In the next paragraphs, we draw on purposively selected examples of practices to illustrate the scope of the theoretical framework. In line with the SRA, the selected examples are historically specific, rather than ideal. Below, we review the five modes in the chronological order used by Forman et al. (2022)—spanning from (1) indigenous democracies, to (2) representative democracies within modern nation states, to (3) community-based democratic organizations beyond the state, to (4) movements for democracy against the state (i.e., attempts to further democratize Mode 2), and finally (5) earth democracy or "Gaia" democracy, which extends civic citizenship to life in general (i.e., incorporating non-human life into a relational participation in civic life).

3.2.1 Mode 1: indigenous forms of community-based (networked) democracies

Mode 1 is the world's oldest form of democracy, and is understood as democracy that is distinct from and not subsumed into modern Western norms. The essence of republican democracy—freedom from political-economic domination, consent of the governed, demanding legitimacy from authority, and self-determination—can be found in many indigenous cultural traditions, e.g., the Igbo (Ekpo and Chime, 2016), the Iroquois (Haudenosaunee) Confederacy, or the Gandhian concept of *swaraj*. In a more modern context, Forman et al. (2022) identify nationalist liberation movements throughout the past centuries and into the present as included in Mode 1, as people attempt, in various ways, to claim a fundamental right to self-determination against (settler-) colonial states.

A case in point is the popular government of Thomas Sankara in Burkina Faso (1983–1987). Inspired by anti-imperialism, Sankara's revolution led the country away from food aid and toward self-reliance based on agroecology (Iyabano et al., 2023), with the understanding that food sovereignty is a linchpin of independence. This historical case also resonates with the lived experience of millions of farmers around the world practicing agroecology, many of whom are involved in the La Via Campesina (LVC) movement for food sovereignty. While certain elements of LVC, such as the contestation of international economic law, fit more into Mode 4 (which we will see below), the movement's axiomatic principle of food sovereignty as an inalienable right to self-determination over food and its means of production fits here into Mode 1.

3.2.2 Mode 2: representative democracies within modern nation states

In Mode 2, democratic citizenship is primarily understood as a legal status for individuals who are guaranteed rights and protections through formal rules and procedures (Mouffe, 1992; Tully, 2008a; Peter, 2021). Democratic participation in Mode 2 can best be understood as an "invited space" (Leitheiser et al., 2022a) for

Citizenship	Modern / Civil	Diverse / Civic
Status	Legal-juridical, within an institutional framework	Relational, state of being in common with others who negotiate their practices and activities in context
Relation to other citizens	Axiomatic independence; relations are codified through law, contracts, and formal consent. Accordingly, some govern, while others are governed.	Axiomatic interdependence; being in common is the starting point for all citizens, and citizenship is constituted through negotiation with other citizens
Understanding of freedom	*Freedom from* subjection to the unruly will of others. Civil liberty to participate in society without interfering on others' freedoms (e.g. private property)	*Freedom to, of and in* participation with other citizens. Civic liberty to contest and modify social rules and cultural norms
Point of departure	Institutional framework / Constitution	Relational activity of citizens
Modes of practice	2, 4	1, 3, 4, 5

FIGURE 1
Tully's framework juxtaposing civil to civic, modern to diverse modes of citizenship and democratic organization. Modes of practice are explained in more detail in section 3.2.

"restricted" participation: officially sanctioned procedures grant citizens a choice within a scope of possibilities and norms that are often defined without democratic participation. In the current conjuncture, Mode 2 politics democracy is hierarchical and "rule-directed" *management* within the consensus of "economic growth, full employment, [and] social security" (Beck et al., 1994, p. 36) and grand narratives of "modernization, good governance, democratization, human rights or civilization" (Tully, 2008b, p. 228).

Various actors assume their legitimized roles in the management of public-affairs, but do not radically challenge the above consensus: citizens vote at the ballot box among choices that generally range from neoliberals to social democrats (Tully, 2008b); consumers vote with their wallets; economic actors maximize self-interest in pursuit of the general good (growth in aggregate economic output); government and experts are responsible for policymaking and acting in the public interest with various technological and managerial approaches to State and/or Market governance (Kaika, 2017; Leitheiser et al., 2022a).

Insofar as it is conceptualized within this tradition of democracy, FD is widely understood as a movement in which citizens work (either individually and/or collectively) to influence existing institutions of agri-food governance *within* established procedures and roles (e.g., lobbying representatives or ethical consumption). The general goal is to push states to assume a more responsible regulatory role and provide a public counterbalance to protect consumers from too much corporate control (Lang, 2005; Bornemann and Weiland, 2019). For example, here it may be assumed that informing the relevant political authorities of an issue (e.g., agriculture's effect on biodiversity loss) through scientific publication and lobbying will be sufficient to make needed changes. Mode 2 FD practices range from top-down FPCs (i.e., those that have a strong basis in government; Schiff, 2008), to "nudging" of consumption choices by states (Baldy and Kruse, 2019; Gumbert, 2019), to the funding of scientific research on sustainable food systems like "climate smart" agriculture or agroecology. As can be seen in Figure 2, we include FPCs in both Mode 2 and Mode 4. The distinction between more "top-down" and more "bottom-up" FPCs emerged in interviews with participants as some described themselves as more "purely" civic led, while others were more driven by integration into city government. The distinction between re-politicization and sedimentation qua institutionalization may be useful here—some FPCs are focused more on challenging and pushing institutions, while others may be more focused on building a more integrated working relationship from the start. Beyond

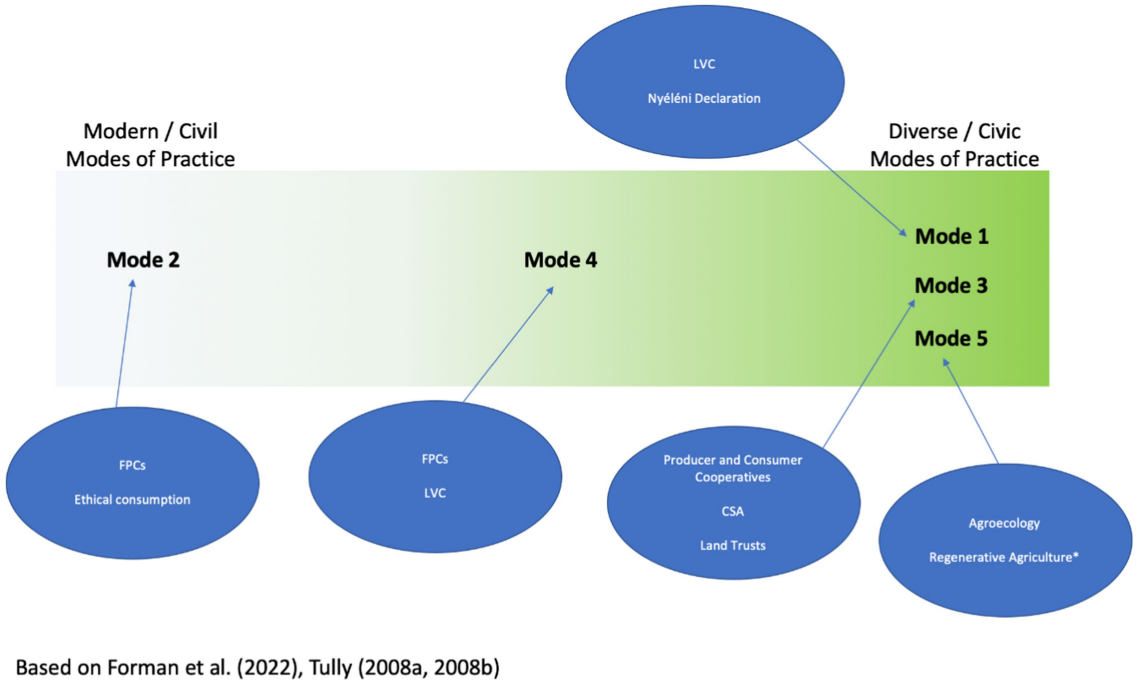

FIGURE 2
The different modes of democratic practice display along a spectrum ranging from Modern/Civil Citizenship to Diverse/Civic Citizenship. For more information about La Via Campesina (LVC), see: https://viacampesina.org/en/; and Nyéléni see: https://nyeleni.org/. We acknowledge that both agroecology and regenerative agriculture are being mobilized in various ways, leading to concerns of co-optation and "watering down." Here we define them broadly as agriculture based on ecological stewardship, as described in "Mode 5" above.

Germany, in some American and British cities, FPCs have been initiated by city government. These clearly fall into Mode 2. In other cases, FPCs have been driven by re-politicization in a more Mode 4 fashion, and after some time, ended up institutionalized in Mode 2, e.g., in Toronto. As noted by one interviewee, these politics are dependent upon the initiators and the local culture. This flexibility of the FPC model over time highlights its potential as a vehicle for building radical reforms.

3.2.3 Mode 3: direct participatory democracies beyond the state

This mode can be understood as a critical response to the perceived failures, or democratic deficit, of Mode 2. In contrast to the "invited space" of Mode 2, Mode 3 is an "invented space" (Leitheiser et al., 2022a) of governance in which people organizing alternative systems of material provisioning to meet community needs. It can be understood as a form of commons governance (Ostrom, 1990) and includes organizational models like cooperative enterprise, land trusts, and various forms of mutual aid.

Community supported agriculture (CSA) is an example of mode 3. CSA forms a direct relationship of exchange—consumers share in the risk of the harvest and ensure that the producers are paid a sufficient wage, while producers ensure that consumers receive a share of food that is produced in a healthy and ecological fashion. CSAs focus on building local communities around relationships of mutual provisioning between producers and consumers, not on prices. While there are no fixed or rigid guidelines for organizing a CSA—as they are translated into various local contexts around the globe—the essence of bringing reciprocal and cooperative relations to food exchange are what unites them across difference. Other examples include land trusts and producer and consumer cooperatives in alternative food networks (AFNs), which despite much diversity share "central principles: voluntary membership, democratic control (one vote per member rather than per share), promotion of interests of its members, self-help, solidarity, and collective ownership" (Rosol, 2020, p. 61).

3.2.4 Mode 4: agonistic democracy with and against the state

Like Mode 3, this mode is characterized by a perceived failure of institutions associated with Mode 2. Mode 4 is also an "invented space" of governance, founded on contestation of those institutions that are perceived as either illegitimate or (neo-)imperialistic in their current forms. Crucially, many Mode 4 practices also *invite* Mode 2 to take their demands seriously. Forman et al. (2022) understand Mode 4 as a practice that contests global/multilateral institutions. Additionally, we would also include grassroots movements and acts of civil disobedience (Celikates, 2016) that contextually contest institutionalized regimes and actively influence the consolidation of new hegemonic state formations under Mode 4. Most important in our understanding is that Mode 4 practices aim for *creative tension* with Mode 2—straddling the spectrum of and linking modern and diverse citizenship. They are civil and civic, rather than military or revolutionary. This is consistent with Mouffe (2000) understanding of citizens in an agonistic democracy who may simultaneously be "friends because they share a common symbolic space [e.g., a "Mode 2" constitutional republic] but also enemies because they want to organize this common symbolic space in a different way" (Mouffe,

2000, p. 13, *parenthesis added*). Mode 4 is the basis for any possibility of "joining hands" between modern constitutional democracy and the civic/diverse practices of citizenship.

General examples of Mode 4 include the World Social Forum, an alternative to the World Economic Forum that works toward counter-hegemonic globalization; and the World People's Conference on Climate Change that is an alternative to the United Nations Framework Convention on Climate Change. Both examples are potentially counter-hegemonic and rooted in civic society; but both also come as a challenge to transform Mode 2 institutions of governance through critical engagement. Acts of civil disobedience (e.g., non-compliance, protest, etc.) also can serve as a "dynamizing counterweight to rigidifying tendencies of state institutions" (Celikates, 2016, p. 7). As such, forms of Mode 4 should not be understood as finite political projects, but rather as processes of (re) politicization (e.g., of food provisioning: what is produced, how, for whom, and where?), re-appropriation of public debate, assertion of democratic citizenship, and hence as idealized political-economic horizons beyond current Mode 2 practices of governance.

For examples of Mode 4 in the FD discourse, we can also look to LVC's contestation of international economic law instituted in "free trade" agreements and the World Trade Organization, and its confrontation with the UN Food Systems Summit.[3] In Europe, the European Coordination Via Campesina (ECVC) writes policy documents which propose alternatives for agricultural policy and land reform. ECVC members have also delivered critical remarks at the European Parliament.[4] As explained above, we also understand some civic-initiated FPCs which are focused on re-politicization as practices of Mode 4 governance. Finally, we include scholar activists associated with food sovereignty (Duncan et al., 2021), or who aim to make their work relevant for civic actors who practice Mode 3 and Mode 4 democracy.

3.2.5 Mode 5: earth/Gaia democracy

This mode brings non-human life into the relational practice of civic citizenship. It rejects the modernist understanding of human-nature dualism and takes it as axiomatic that all life is inter-related and inter-dependent. General examples include the practical environmental knowledge of various indigenous cultures in which stewardship of land and concern for non-humans are central to ethical and political negotiation. Such practices have contributed to symbiotic socioecological relationships in the past and are increasingly seen as a model for inspiring future sustainability (see, e.g., Kay and Simmons, 2004; Armstrong et al., 2021).

The Mode 5 *ethos* can be found in the FD-associated discourses and practices of agroecology and regenerative agriculture. Both understand agriculture as a *power with* rather than a *power over* land and ecology, as in industrial monoculture production. Agroecology as a movement, practice and science blends the design of relational agro-ecosystems with Mode 1 claims to food sovereignty (see, e.g., Hrynkow, 2017). Regenerative agriculture, likewise, has been mobilized in many ways, but its "storyline" has been seen as a "stepping stone between Western and Indigenous ontologies" (Gordon et al., 2023, p. 1837) that promotes more-than-human kinship. The integration of non-humans and ecosystems into democratic negotiation keeps food provisioning systems tied to biophysical limits of host ecosystems.

4 Toward radical food democracy

As reviewed in section 3, FD is interpreted and practiced according to different modes of democratic citizenship. For instance, due to the prevalence of the Mode 2 approach, Tilzey (2019) suggests that FD's praxis has most been limited to (impotent) attempts at influencing formal democratic politics (i.e., elite representative democracy) through discourse. Representative liberal democracy assumes that food de-commodification and food democracy can be attained through the formal rejection of neoliberal discourse in the name of the "general social interest" (Tilzey, 2017). This critique of Mode 2 also points to the limitations of a diverse economies approach to "language politics" (*cf.* Kelly, 2005), in which the formal notion of the *right* to benefit (e.g., from localized, healthy, affordable, agroecological food production) often obscures the material preconditions of the *ability* to benefit (Tilzey, 2019, p. 205). This distinction resonates also with the characterization of modern vs. diverse citizenship in Figure 1.

Besides re-organizing discourse, Tilzey (2017, 2018, 2019) argues for a food democracy praxis (otherwise referred to as livelihood sovereignty or radical food sovereignty) centered on the wider material and political economic (hence, relational) foundations of global capitalism. Accordingly, RFD via substantive freedoms should squarely reject the following notions:

(i) the Weberian market-state dichotomy;

(ii) on account of (i), demands for de-commodifying food systems through the state according to a Polanyian "double-movement" (Tilzey, 2017)—since these are inconsistent with a reading of the state as a social relation, as an integral *state-cum-civil society* in a Gramscian sense (*cf.* Jessop, 2016);

(iii) on account of (i) and (ii), populist assertions which essentialize the unity of actors like "transnational capital," "the state," "the peasants" and thus overlook the materiality of social power configurations (such as class-based and colonial North–South relations), as well as the multiplicity of contextual strategies pursued by these actors;

(iv) the performative power of discourse as the Habermasian "unforced force of the better argument" which alone is entrusted to set in motion processes of societal reconfiguration (Tilzey, 2019, p. 205).

As summarized in Figure 2, civic modes of democratic practice should rest on a material and strategic-relational understanding of FD. Food systems are material, in that the fulfillment of ordinary preoccupations with food provisioning is mediated by both the biophysical properties of the environment—that is, the ensemble of soil, nutrient cycles, plants, animals (including humans), etc.—and the concrete labor requirements according to which different modes of

3 https://viacampesina.org/en/un-food-system-summit-the-un-and-green-capitalism-attack-food-sovereignty/

4 https://viacampesina.org/en/la-via-campesina-delivers-a-fiery-speech-inside-the-european-parliament-calls-out-free-trade-agreements-colonialism-and-unilateral-sanctions/

production are enabled or constrained. The concern with the generative mechanisms behind modes of production highlights also the centrality of social relations, which define how different strategies interact, evolve, prevail over time, and eventually also determine the (always temporary and spatially-defined) constitution of overdetermined collective actors like "the state," "the agri-business," "the peasantry," or "the democratic food system." This material-relational view of food systems borrows from Marxian analytical dialectics applied to political ecology, an approach which "retains the historical specificity of social systems while recognizing, simultaneously, their inescapable biophysical constitution and dependencies" (Tilzey, 2018, p. 18).

It follows that an RFD praxis would necessarily challenge both the symbolic-discursive and the material dimensions of social-property relations within capitalism. "In other words," writes Tilzey (2019, p. 208), "'political' emancipation will be less than meaningful unless undertaken in conjunction with 'economic' emancipation." This implies questioning the commodity treatment of food and land, alongside addressing the deficiencies in the material organization of provisioning systems according to the logic of market-mediated capital accumulation (e.g., organizing production around the imperatives of agribusiness corporations and large asset management firms; Clapp and Isakson, 2018). Drawing on Mouffe (2022, p. 32), we contend that in most contexts, such a challenge will be successful to the extent that it is connected to people's "lived experiences and concrete aspirations." "It is always around specific demands that people can be politicized," Mouffe argues, "and an abstract anti-capitalist rhetoric does not resonate with many of the groups whose interests the radicals aim to represent" (Mouffe, 2022). In short, "seeing [an alternative] is believing [in an alternative]," as the motto goes among Cuban farmers in the agroecology movement (Rosset et al., 2011). Borrowing from Kaika's metaphor of "the frog and the eagle," the approach advanced in this paper is intended to get messy also following the diverse economies scholarship (Huron, 2018), "into the murky waters and messiness of local struggles and conflicts" (frog-like), while cultivating the ability to extrapolate the empirical particulars, connecting them to a bigger picture (eagle-like) (Kaika, 2018, p. 1715).

The diverse economies approach starts from recognizing that while modernity, capitalism, and industrial civilization possess totalizing tendencies which, to varying degrees, permeate all human communities around the world, these are not all that exists. Even within the market economy, there are relationships that can disengage "from wider circuits controlled by capital [and construct] well-operating alternatives" (Van der Ploeg et al., 2022, p. 13). This does not imply that alternatives found in AFNs, CSA, or FPCs alone represent instances of system change. Yet, they introduce sources of resistance to the system's inertia, rather than sitting and waiting for a revolution which is always "yet to come." These local alternatives are, on the one hand, lighthouses that offer opportunities for building popular counter-hegemonic support as people can "see and believe" in alternatives (Nicholls and Altieri, 2018). On the other hand, they are seeds of potential re-configuration of social relations (Leitheiser et al., 2022a) which, given their nature *in potentia*, require the adequate milieu to sprout and grow. This again, highlights the importance of a co-evolutionary and learning-based approach to change. Nevertheless, to reiterate the point about the dangers of voluntarism in prefigurative politics, the context in which the experimentation with a diversity of economic practices is unfolding should not be neglected. This points to a world system predicated on uneven and combined development of core countries in the global North and marginalized peripheral regions in the global South. Agrarian capital in the global North is largely accumulated in the form of increasingly concentrated farmland and mechanized production systems. These capital infrastructural developments and trade route relations, in turn, rely on the still-ongoing historical appropriation of raw materials, labor, land, and environmental sinks from the global South—a phenomenon known as (ecologically) unequal exchange (Hornborg, 2014; Hickel et al., 2022).

While the core has more structurally-inscribed space for agents to exert their civil freedom (e.g., relatively more possibilities to organize or elect democratic leadership), the agents living in these parts of the world are more likely to reflexively maintain and extend the structures that they are benefitting from. Vice versa, although exploited people in the global South are more likely to exert their reflexive agency toward radical transformation of social structures, democratic action and material possibilities are more limited. This might be true in an abstract sense, but we argue that a more nuanced or middle-range analysis allows for recognition of opportunities for subverting coercive order and structural domination. In our example, this would mean, on the one hand, de-linking developmental pathways in the global South from the interests of core countries (Amin, 2011) while, on the other hand, jointly articulating transversal instances of interstitial, synergic, and revolutionary change (Wright, 2010) across geographies, not only in the periphery but also in the global North (see also Patnaik and Patnaik, 2021).

RFD in high-income countries, therefore, cannot be emancipatory in scope without strategically joining hands with the agrarian struggles resisting the neo-colonial advancement of western-led capital accumulation in the global South. We thus concur with Tilzey (2020, p. 382) that "the capitalist "agrarian transition" in the global South has not generally taken the form of the full proletarianization" of peasants, since many more farmers are excluded from the circuits of capital accumulation compared to their counterparts in the global North. However, we contend that the joint articulation of re-politicizing food provisioning systems and building alternative imaginaries (whether in the global North or the global South) is not a futile enterprise. Indeed, it is a necessary step toward the subversion of the current corporate-centered industrial food system.

The transformative (or better emancipatory) potential of RFD initiatives, therefore, rests not only in their own operation, but also in their ability to disrupt the broader structures of socio-economic organization—both ideationally and materially. While potential for resistance in the global South is numerically greater (because the masses are relegated to peripheral relations with core countries), this does not rule out the possibility of parallel resistance within the global North to create fissures and moments of systemic incoherence. This "dialectic of reform and revolution" on a variety of fronts in a multiplicity of geographies, write Jessop and Sum (2016, p. 108), is what can eventually result in "fundamental changes in the structural bases of domination."

5 Data and methods

The methodological approach in this paper is inspired by Tully (2008a,b) understanding of public philosophy as a civic task of

addressing common affairs and the fundamental concepts and categories of politics, in dialogue with civic activists as equals. In line with the work of others like Gibson-Graham (2006), Wright (2010), Huron (2018), and Kaika (2018), the approach moves back-and-forth between a granular, zoomed-in perspective of particular practices, and a zoomed-out macro-political perspective. The case study demonstrates that our concept of radical food democracy was not only developed from theory, but in an iterative process of dialogue with both civically active citizens and political theory.

RFD requires a back and forth between the ideational and the practical, the abstract and the concrete, the actionable and the analytical. Our methodology follows a critical scientific approach to society (Sayer, 2009) and a renewed attention to the social role of academics (Leitheiser et al., 2022b) as public intellectuals endowed not only with the task of furthering dialogue over concepts, but also trying to make concepts "performative politically by linking the concept to contemporary practices and struggles over socio-environmental change" (Kaika, 2018, p. 1719). Accordingly, we draw inspiration also from other scholar-activists working in a dialectical fashion with food sovereignty movements (e.g., Duncan et al., 2021). In doing so, we present our case study with an "ethos of appreciation" (Moriggi, 2022, p. 133), bringing forth a positive, strengths-based analysis (in line with the diverse economies approach).

Empirical work was conducted from November 2018–February 2020 by the first author and includes semi-structured interviews (with leaders from the FPC network and the initiator of both the CSA cooperative network and the CSX initiative), document analysis, and participant observation. Six semi-structured interviews with FPC leaders from Cologne, Berlin and Frankfurt focused on the development of FPCs in German cities (locally and nationally), the motivations of participants, and the relationship of FPCs to government. Interviews were conducted in German and English, recorded with consent and transcribed. Translations from German to English were done by the first author. Pseudonyms have been used to protect the identities of the respondents, due to the politically sensitive nature of discussions. Interview questions with the CSA network/CSX initiator focused on the network structures and ways in which they might contribute to systemic change. Additionally, the first author co-organized a food policy event together with German FPC leaders in June 2021. The latter brought together scientific experts, citizen activists and practitioners, and policy makers from German ministries and municipalities to explore the question of how city-regions could cooperate in developing more sustainable and resilient food systems. The event also included a session hosted by leaders from CSX, aimed at exploring the question of how civic initiatives like FPCs and other actors (e.g., municipalities) support the spread of CSAs.

6 Illustrating radical food democracy in Germany

Our case study illustrates how a Mode 3 (community-based democracy) practice of building a community economy around a shared need (e.g., healthy, local, sustainably-produced food) can develop collective agency that expands into diverse citizenship (i.e., the development of radically democratic political subjects) beyond that initial shared need. It is this type of co-evolutionary process of *learning toward* radical food democracy that we understand as carrying transformative potential. We sketch out some of these potentials that are emerging for diverse economies to "join hands" with Mode 4 (agonistic democracy) practices of citizenship, and ultimately link to and re-politicize Mode 2 (representative democracy).

6.1 From CSA To CSX: building community economies without market prices

"Solawi" is an abbreviation for *Solidarische Landwirtschaft*, which is translated as Solidarity Agriculture. Solawi is an iteration of CSA models (which were discussed earlier as an example of Mode 3 democratic practice) found elsewhere around the globe. The network encompasses many different types of governing arrangements—mainly so-called prosumer networks in which farms and private households form an economic community based on shared use value. Many Solawi farms are on leased land that is jointly financed by its members via shares. Moreover, many Solawi farmers consider their food as a commons (i.e., a shared good, not a commodity with a market price), produce it without operating profits, and just ask for their members to cover their costs, including a living wage for the farmer. Member contributions are often made transparent and discussed openly at quarterly or yearly general meetings where a need-oriented cost plan for the coming year is presented, and members decide together how costs will be covered.

Going beyond this prosumer arrangement, Solawi Cooperatives (*Genossenschaften* in German) take the notion of solidarity to a registered legal form. This means that not only do participants have a share in collectively financing the cooperative's lease or land ownership and covering operating costs; but their purchase of a harvest share also entitles them to vote in the cooperative's general assembly in which executive and supervisory boards are elected. At the time of writing, there are over 460 Solawi farms in Germany (see Figure 3).[3]

In speaking with Philip, a leader from the Solawi network in the spring of 2020, we learned how the essence of CSA has inspired organization far beyond food and agriculture. At the time of the interview, there were around 300 Solawi initiatives in Germany (which demonstrates growth in a relatively short time). For Philip, this meant that Solawi had achieved a level of success on the one hand, but that on the other hand they were not systemically relevant. As Philip told us:

> "*There's a lot of transformation potential in this idea, but I would like to help make sure that we have many thousands more of these farms […] To do so we need to also connect with other consumer-initiated initiatives that do not just stand alone. We need to connect with other supply systems around these individual farms, and build entire structures and value chains. That's why these ideas for CSA must be transferred to other supply areas.*"

In 2019, Philip took aim at this problem, as he developed the idea of "Community Supported X" (CSX). In CSX, the variable X can be filled in with virtually "everything"—whichever provisioning systems and economic relations a community decides to include, given its contextual constraints and possibilities. He envisioned CSX as having the potential to translate the CSA model extends to all basic needs that members of a community may have (called *Grundversorgung* in German). The model is already being used by

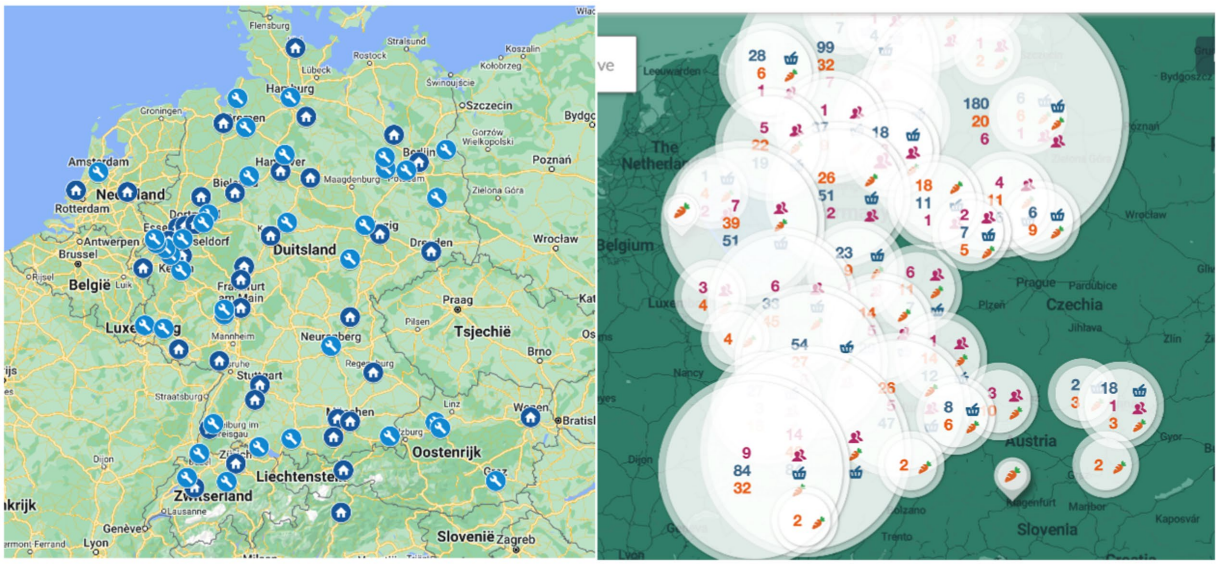

FIGURE 3
Map of German FPC network (Left): The house logo signifies an established FPC, while the wrench logo signifies an FPC in the making (source: https://ernaehrungsraete.org/, accessed 29 September, 2023). Map of German Solawi network (Right): For more information, see: https://www.solidarische-landwirtschaft.org/solawis-finden/karte#/ (accessed 29 September, 2023).

many enterprises involved in the CSX network. These include food enterprises like bakeries, cheese and wine makers, coffee roasters and beekeepers, but also services like energy production, transport, recreation, as well as clothing, bike, and home repair. The goal is to form the basis for community-supported, locally-embedded economies where citizens cooperate toward the practical goal of meeting their daily needs together.

As the model continues to expand, there is an ambition to include many more needs, such as housing and childcare, with the idea to build CSX neighborhoods where inhabitants cooperate to meet the basic needs and provide basic services for the community. By providing a baseline *Grundversorgung*, which we understand in line with a "livelihood sovereignty" (Tilzey, 2019), Philip explained that CSX communities can:

> *"try to emancipate [themselves] from capitalist economic logics, growth constraints, and competitive pressures […] For me it is really the act of emancipation. We are building these structures precisely to be independent. That's why cooperation with the state, which gives subsidies, or with other initiatives, in which one then becomes quasi-dependent on the market economy must always be approached with a lot of caution—to protect this valuable independence."*

Here Philip highlights the importance of a civic citizenship and democratic sovereignty over basic needs, as essential within a civil framework of State/Market governance. The idea is not to become a closed off autarky, but to protect and maintain a set of principles from becoming watered-down. This highlights a practical case of a dialectic tension between Mode 2 and Mode 3/4 practices and, as such, a moment of potential radicalization of food democracy. In short, drawing from Jessop's SRA, the concrete outcome of networked CSX is to challenge and selectively expand the structural constraints orienting their practices.

Therefore, just as individual Solawi farms cannot stand alone, the need to connect CSX economies with wider structures and institutional frameworks is also recognized. For example, state control over land policy, taxation, and educational support, are seen as crucial levers for promoting Solawi. Concerning CSX, even more state functions come into play. For this reason, Philip sees it as "*absolutely essential and predestined that, in principle, the FPCs are the interface to the local and municipal policy representation for Solawi.*" The Mode 3 practices of CSA can thus be strategically expanded and enabled through Mode 4 and Mode 2 practices of Food Policy Councils (FPCs).

6.2 Food policy councils: creating spaces for political imagination

> *"The idea of food democracy is something that really comes out of civil society […] We are coming up with our own spaces and then inviting other citizens, but also the existing governing structures to participate there"* (interview with Ella, FPC leader).

The first FPC was formed in Knoxville, Tennessee in 1982, and like CSA the model has spread in different iterations across the globe. The character of particular FPCs is highly dependent on the local context. Since 2016, there have been more than 30 FPCs established in German cities and regions (see Figure 3). As one interviewee, Julia, told us, every city has different politics. All iterations share a convening of citizens and stakeholders from food systems who develop practices and strategies for local food policies—for example, developing local and organic food procurement schemes for schools. Convening under the motto '*Food Democracy Now!*' in Germany, FPCs create a practical-political space for citizens who wish to directly participate in the

development of policy that can shape food provisioning in their cities and regions.

Our interviewees all expressed that FPCs were a model that met an existing need in Germany for addressing problems in the food system at a more holistic level. As Ella, a leader in the FPC network, told us:

> "*You have Solawi everywhere. That's had a strong growth in the last ten years in Germany. And you have various other initiatives that go in that direction. And you have various ways of people taking hold of certain aspects of the food system, but not of the governance of the whole […] that individual thing is not the model for going about transforming the whole.*
>
> *People had arrived at a point in their work where they had developed all of these different initiatives, and they had spent enough time in those initiatives to see the limitations; to come up against certain barriers.*"

However, traditional Mode 2 practices were not seen as an option for overcoming these barriers.

Ella explained:

> *"We have a ministry of agriculture and food at the national level that deals with exactly zero of the issues that we need to deal with […] Political imagination is something we haven't really seen in our government in recent decades […] FPCs are filling that gap, creating the space where that imagining can happen."*

Hannah, another FPC leader, echoed this point:

> *"The FPC gives our voices a space where the discussion can take place. It's where we can come together and bring our message to politics […] So that not only the politics, but namely, the companies—the agricultural and food corporations which have a great deal of influence and power—to say to them, 'No. We don't want that.'*
>
> *In this way, a FPC can capture this voice of resistance. So that not only the voices of the lobbies are heard. Rather, so that those who have no lobby, or have only a small lobby, can be heard."*

Despite acting at a strategic distance from the state, FPCs also widely desire to engage with the state apparatus—not only in a more Mode 2 passive way, but actively and agonistically as Mode 4 "sparring partners" (Leitheiser et al., 2022a). As Ella explains in the quote at the beginning of this section, members of existing governance structures are also invited to participate along with other citizens. Valentin, another leader in the FPC movement, explained the strategy in a 2018 interview:[5]

> *"Food policy councils are an attempt to tackle the food system transformation [Ernährungswende in German] at the lowest political level […] You won't find food commissions in any city council; they only exist at the state and federal level. But we believe that little will happen at that level, because the lobbies are firmly installed there, and politics is dependent on these lobbyists.*
>
> *"At the municipal level, things are different. We think that municipalities do have competencies in this area. Maybe not when it comes to setting legal limits [Grenzwerten in German], that will certainly always remain a matter for the federal government or the EU. But municipalities can, for example, shape local markets: They can support regional farmers who want to sell into the city […] intervene in school education and create nutritional awareness among daycare and school children. They can create offerings for their citizens on municipal green spaces […] In short, the lowest political level could already do a great deal. With the FPC movement, we want to use this local space for action [Handlungspielräume in German]."*

In targeting these levers and opportunities, FPCs see local action as a *means* to an *ends* for effecting a transformation in the food system, in line with a new municipalist politics of proximity (Russell et al., 2023). That is, "tending to the part of the garden one can reach," while connecting with others who can reach elsewhere. This focus on the municipal scale is not inward looking but strategically reflexive. FPC leaders have recognized the municipal scale as having more structurally-inscribed space for exerting agency, with ripple effects beyond the local. Localization is seen by FPCs as a tool for global social justice, insofar as food provisioning systems move to de-link from capital-controlled circuits (Thurn et al., 2018).

While FPCs exhibit local variation in terms of politics and organization, FPC members have recognized that together they have a greater capacity to foster popular support and political will for change at regional, national and EU scales. To this end, they have regular networking conferences where FPC leaders from different cities gather to discuss various strategies and practices. Since 2021, FPCs have also formed at the regional level in five German states (Baden-Württemburg, Brandenburg, Hesse, Lower Saxony, and North-Rhine Westphalia). Here FPC members can better pool resources and knowledge to influence food policy and politics at a wider scale. This includes both formulating political demands and policy recommendations, and informing citizens about how political parties contribute to FPC goals of sustainable food systems with an "election touchstone" (Wahlprüfstein) prior to elections.[6] More recently, a German FPC leader also spoke at the European Economic and Social Committee's public hearing "Toward a European Food Policy Council/Sustainable Food System,"[7] where she advocated for a more supportive policy environment for FPCs to act within: including paradigm shifts in the EU legislative frameworks on

5 See: https://blog.marktschwaermer.de/essen-ist-politisch/; last accessed 30 September, 2023.

6 https://www.eesc.europa.eu/sites/default/files/files/input_fpcs_a_wissmann.pdf

7 https://www.eesc.europa.eu/en/agenda/our-events/events/towards-european-food-policy-council-sustainable-food-system

competition law, the urban/rural divide, and the treatment of food as a commodity.

The above examples display how FPCs work both in and beyond "the local," and with and against the state, as they work to transform food systems toward more democratic, healthy, solidaristic, diverse economies. In doing so, their practice acts as a bridge connecting diverse economic practices with the state institutions and the set of macro-structural conditions which constrain (or enable) these practices. We have, thus, seen how various practices of Mode 3 (participatory food democracy like CSA) and Mode 4 (agonistic food democracy like civic-led FPCs) can work prefiguratively within the interstitial cracks of the system or in strategic symbiosis with them (*cf.* Wright, 2010), to reform and transform Mode 2 (representative democracy) into a more radical civic framework.

7 Discussion and concluding remarks

Our case study has illustrated a theory of transformation at work in practice: in Germany, those engaged in the construction of CSA and CSX networks (Mode 3) recognize the need to engage with wider institutional frameworks (Mode 2) in an agonistic manner (Mode 4). This process blurs the lines between diverse and modern citizenship, and between the material and the ideational. To those who work to forge alternative economic-material realities (Mode 1, 3, 5), wider political-ideational structures (constituted in Mode 2) are a clear barrier to systemic relevance. It is, likewise, true that those who engage in political-ideational work recognize the importance of "lighthouse" cases (*cf.* Nicholls and Altieri, 2018): actually existing material practices that they can point to in order to demonstrate that their ideas are tangible, relevant, and capable of catering to people's needs. Borrowing from Jessop's SRA (Jessop, 2005, 2007) and Tully's dialectics between modern and diverse citizenship (Tully, 2008a,b), we have argued that the pursuit of RFD requires a context-specific co-evolution of these grounded lighthouse experiments on the one hand, and the imaginative reform-with-transformation of wider institutional frameworks on the other hand. We do not uncritically understand these particular examples as the vanguards of a RFD that is destined to come; it is rather that these examples illustrate a learning-based approach of thinking and acting strategically, reflexively, and co-evolutionarily on the way toward RFD. It is this approach that we argue should be retained and built upon in other contexts, and critically engaged with by scholar activists interested in advancing RFD praxis.

In addition to the case study that we have presented, we see other examples of such an approach emerging more generally, beyond Germany, and beyond just food. The Public-Commons-Partnership concept details a model of ownership and governance that is shared by a "common association" (e.g., a cooperative or civic initiative) and a public authority (Russell et al., 2023), for example in public support for cooperative housing (Ferreri and Vidal, 2022). Scotland's Land Reform Act has paved the way for more community ownership of land, with the 2016 law establishing a community's right to buy land to further goals of "sustainable development" (Calo et al., 2023). The latter political-ideational reform of property law has potential to open up further possibilities for agroecological transformation (*ibid.*) Agrarian land trusts, like the French Terre de Liens, provide another case of institutionalization of alternative food systems. Active since 2003, Terre de Liens has raised funds (over €90 million) from almost 25,000 local members distributed across its 19 regional chapters. The association uses these funds to buy out farmland via its foundation, which then lends it at a lower cost to farmers committed to agroecological practices. As of 2020, the association had secured over 200 farm estates on which over 300 farmers work. This scheme, which has been replicated elsewhere in Europe (e.g., with Kulturland in Germany, Aardpeer and Land van Ons in the Netherlands) and in North America (with the Agrarian Trust in the United States), is an effective way of de-commodifying access to farming by preventing speculative purchases of agricultural land by investors.

An obvious limitation of this paper is that the case studies have been restricted to the authors' capacity to collect primary materials. While we have tried to pursue a methodologically global approach to food systems, the paper's empirical focus, admittedly, remains confined to European examples. Nevertheless, our conceptual elaborations in section 2, 3, and 4 aim for a generalizable understanding of democratic citizenship and social change; and in this vein, we welcome further contributions, case studies, or rebuttals coming from other theoretical traditions, different geographies, and diverse practices.

It is equally important to both recognize "seeds" of opportunity and keep the "hatchet" of critique sharp (Alhojärvi and Sirviö, 2019). It is only with clear and critical eyes that the emancipatory opportunities for agonistic engagement with existing institutions, which are arranged in the interests of capital, can be actualized (*cf.* Ferreri and Vidal, 2022). Some may see our optimism as a weak point, yet we stand behind the notion (also championed by Gibson-Graham) that scholars can and do participate in shaping practice through theory. In this paper, we have thus aimed to intervene in public and scholarly debates—about food systems transformation, citizenship, and democracy—and to build theoretical and practical dialogue across existing practices of food democracy. The interface of scholarship, civic activism, practice, and politics is central to the pursuit of emancipatory futures.

Data availability statement

The datasets presented in this study can be found in online repositories. The names of the repository/repositories and accession number(s) can be found at: https://dataverse.nl/dataset.xhtml?persistentId=doi:10.34894/JGS3DV.

Ethics statement

The studies involving humans were approved by the Research Ethics Committee Faculty of Spatial Sciences, University of Groningen. The studies were conducted in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study. Written informed consent was obtained from the individual(s) for the publication of any potentially identifiable images or data included in this article.

Author contributions

SL: Conceptualization, Investigation, Methodology, Writing – original draft, Writing – review & editing. RV: Conceptualization, Methodology, Writing – original draft, Writing – review & editing.

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Conflict of interest

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

Publisher's note

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Stakeholder mapping to explore social and economic capital of Rotating Savings and Credit Associations (ROSCAs) to increase demand for and access to healthy food

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Introduction: South Africa, grappling with the complexities of malnutrition, faces a dual challenge of undernutrition in children and overnutrition in adults, particularly among women. This situation is exacerbated by high rates of food insecurity, affecting nearly one-fourth of households. In this context, the role of Rotating Savings and Credit Associations (ROSCAs), locally known as stokvels, becomes increasingly significant. These informal, often women-led, savings and borrowing groups present a unique opportunity to address dietary challenges and promote healthier eating practices in urban, low-income settings. This study explores the potential of stokvels in mitigating the dual burden of malnutrition by facilitating access to healthy, affordable foods.

Methods: We conducted stakeholder mapping to understand the roles and influences of various actors within South Africa's food system, particularly their interactions with stokvels. Our research focuses on how these groups, deeply embedded in the community fabric, can leverage their collective power to negotiate better access to nutritious food and influence healthier dietary choices. Stakeholders identified in the study span diverse sectors, including retail, agriculture, finance, and community organizations.

Results: The research reveals that stokvels are perceived as vital social and economic entities capable of maximizing value through partnerships and networks. However, challenges such as the informal nature of stokvels and the lack of formal legal agreements often hinder their ability to form partnerships with formal institutions. The findings emphasize the importance of understanding and leveraging the social dynamics within stokvels, recognizing their role in enhancing food security and contributing to economic empowerment, especially for women. The study also identifies the need for formalizing stokvel structures to enhance their operational efficiency and increase their impact on food systems.

Discussion: In conclusion, this research highlights the untapped potential of stokvels in addressing South Africa's nutritional challenges. By fostering stronger connections between stokvels and various food system actors, there is a significant opportunity to improve food security and promote

healthier eating habits in low-income communities. Future research should aim to include unrepresented stakeholders and explore strategies to enhance the role of ROSCAs in promoting healthier food choices and addressing affordability and accessibility barriers.

KEYWORDS

stakeholder mapping, Rotating Savings and Credit Associations (ROSCAs), stokvels, healthy food access, social networks and partnerships

1 Background

African nations are undergoing a rapid and complex shift in nutrition and epidemiology, characterized by a dual challenge of malnutrition encompassing both underweight and overweight/obesity (Mbogori et al., 2020). This is further compounded by the coexistence of both chronic infectious and non-communicable diseases (NCDs). South Africa is no exception, with chronic NCD's accounting for 52% of all-causes of adult mortality (Biney et al., 2020), and 1 in 5 adults living with HIV/AIDS (Zuma et al., 2022). In a country with the highest prevalence of adult overweight and obesity in the region, and where nearly 24% of households experience some form of food insecurity (Goetjes et al., 2021), this so-called "wicked problem" of obesity juxtaposed with food insecurity and NCDs, may, in part, be explained by an unhealthy diet and a clear lack of dietary diversity (Harper et al., 2022). To this end, the World Health Organization (WHO) defines a healthy diet as one which "achieves energy balance and a healthy weight; limiting the intake of total fats and giving preference to unsaturated fats vs. saturated fats; increasing the contribution of fruit, vegetables, legumes, whole grains, and nuts; and limiting the intake of free sugars and salt, and ensuring that salt is iodised" (Willett et al., 2019; World Health Organisation, 2022). In a study of 187 countries comparing dietary intake worldwide, diets from many African countries were more diverse and included fewer processed, energy-dense foods or foods with minimal nutritional value, when compared to many developed countries (Imamura et al., 2015).

Nevertheless, South Africa was part of a limited group of Sub-Saharan African nations displaying a less traditional and more Westernized diet [Willett et al., 2019; Food and Agriculture Organization of the United Nations (FAO), United Nations Economic Commission for Africa (ECA), 2021]. This profile was characterized by relatively higher median intake of sugar/sweeteners, alcohol, meat, animal fats, eggs, and dairy products (Willett et al., 2019). The question remains as to the drivers of this pattern of obesity, malnutrition, and the high burden of diet-related chronic diseases in South Africa. Although South Africa has one of the highest Gross Domestic Products (GDP)s in Africa, it also has a highly inequitable economy, with one of the highest GINI coefficients globally. South Africa has experienced rapid urbanization, often into poverty, and with more than one-third of adults unemployed and a further 5% underemployed (Dodman et al., 2017).

Food systems make up a large part of the country's economy. They can play a vital role in the mitigation of issues such as food insecurity and malnutrition [(Food and Agriculture Organization of the United Nations (FAO), United Nations Economic Commission for Africa (ECA), 2021)]. Several studies have shown that as incomes rise, healthier diets become more accessible, but high-energy, highly processed foods with minimal nutritional value are often more affordable [Zenk et al., 2005; ver Ploeg et al., 2009; Imamura et al., 2015; Willett et al., 2019; World Health Organisation, 2020; Food and Agriculture Organization of the United Nations (FAO), United Nations Economic Commission for Africa (ECA), 2021]. Contextual factors in the surrounding environments create bottlenecks affecting physical food access (Committee on National Statistics et al., 2013).

For instance, people in some urban, low-income areas may have limited access to full-service supermarkets or grocery stores (Zenk et al., 2005; ver Ploeg et al., 2009). In South Africa, where these large food retail outlets exist, the quality and selection of items are generally less healthy in low-income communities when compared to those in high-income areas (Peyton et al., 2015; Odunitan-Wayas et al., 2020). Transport has been argued to be one of the major factors hindering access to food, risking food insecurity in residential areas with limited transport, long distances to shops, and few supermarkets (ver Ploeg et al., 2009). This issue of "last mile distribution" and a supply chain management system that is framed in a context more compatible with the Global North means that access to affordable healthy food, particularly in low-income, urban communities, contributes to this double burden of malnutrition (Tuomala and Grant, 2022).

Exacerbating inequalities are further intensified by increased unemployment and sluggish economic development (Leibbrandt et al., 2010). Several underlying causes of malnutrition in South Africa have been largely interlinked with poverty and food insecurity (Govender et al., 2017). One way to approach these concerns is by leveraging the potency of Rotating Savings and Credit Associations informal financial institutions such as ROSCA and ASCAs. ROSCAs refer to community-driven financial endeavors where individuals voluntarily join a group, convene regularly, and contribute identical savings amounts to a shared fund and the entire sum is then periodically allocated to each member in a rotational manner (Kabuya, 2015). While ASCAs, on the other hand, are savings groups where funds contributed regularly are not immediately withdrawn like the ROSCAs but are left to grow as loan opportunities for members, for bulk purchases, or collective investments (Landman and Mthombeni, 2021).

Rotating Savings and Credit Associations (ROSCAs) are a global phenomenon, existing in various forms across different cultures and economies (Milles, 2011; Benda, 2013; Stoffle Richard et al., 2014; Kabuya, 2015; Lasagni and Lollo, 2015; Nyoni, 2016; Koike et al., 2018; Nyandoro, 2018; Sato and Kondo, 2019; Ademola

Abimbola et al., 2020; Lappeman et al., 2020). They operate on a simple yet effective mechanism: a group of individuals contribute to a common fund, and each member, in turn, receives the lump sum on a rotational basis. This system fosters a sense of community and mutual trust and serves as an informal financial institution with limited access to formal banking (Lukwa et al., 2022). In South Africa, these associations are known as "stokvels," and they also play a pivotal role in mitigating household food insecurity (Aitchison, 2003; MASSMART, 2011; Response African Response Research, 2012; Bäckman Kartal, 2019; Fairbridges Wertheim Becker, 2019; Ngcobo, 2019; Hutchison, 2020; Mabika and Tengeh, 2021; Old Mutual, 2023). By providing members with access to lump sums of money, stokvels enable households to make significant food purchases and cushion against times of scarcity. This communal financial model not only alleviates immediate food insecurity but also empowers communities by fostering a culture of savings and financial planning, ultimately contributing to long-term food security (Mabika, 2018; Mabika and Tengeh, 2021).

A Rotating Savings and Credit Association (ROSCA) is a community-oriented financial arrangement characterized by a self-formed group of individuals who come together at regular intervals to pool equal financial contributions (Otudor, 2020). In the framework of a ROSCA, each member takes turns receiving the collective sum, creating a rotating cycle (Johnson, 2022). As an informal institution, stokvels' success hinges largely on collective goals, trust, cultivating a sense of community and leveraging their social and economic capital. There are reportedly over 800,000 stokvels in South Africa (representing more than 11 million persons, the collective value of which is more than ZAR50 billion annually), with 20% of these recognized as grocery stokvels (Bophela and Khumalo, 2019). Findings from our recent publication demonstrated the critical role of Rotating Savings and Credit Associations (ROSCAs), known as stokvels in South Africa, in accelerating social and economic reforms and in addressing certain health concerns, particularly for women in sub-Saharan Africa (Lukwa et al., 2022).

There are different typologies of South African ROSCAs, colloquially known as stokvels, each characterized by unique objectives and structures (Irving, 2005; Matuku and Kaseke, 2014; Mabika, 2018; Bophela and Khumalo, 2019). Savings stokvels exclusively focus on fostering savings, with members contributing fixed amounts to a collective pool and determining the rotational order for receiving the amassed funds. Notably, savings stokvels often boast the largest memberships among all stokvel types (Bophela, 2018; Bophela and Khumalo, 2019). Burial stokvels, conversely, provide support during times of death, with members making fixed contributions to cover funeral expenses, and the specific benefits are outlined in the stokvel's conditions (Matuku and Kaseke, 2014). Investment stokvels aim to accumulate capital through business ventures while also promoting savings through bulk purchases, commonly referred to as cooperative buying societies (Response African Response Research, 2012; Tshandu, 2016; Old Mutual, 2023). Members contribute fixed amounts monthly, allowing funds to accumulate before investment. It is noteworthy that savings, burial, and investment stokvels are predominantly women-dominated (Verhoef, 2001, 2020; Lukwa et al., 2022). High-budget stokvels function as financial institutions, emphasizing savings and investments but catering exclusively to individuals with substantial means. Members contribute significant amounts, enabling them to receive substantial lump-sum payments for high-resource-demanding needs. Notably, high-budget stokvels are predominantly comprised of men, with limited female participation (Kibuuka, 2007). Grocery stokvels pool funds to purchase basic foods and groceries for members' households, sharing the acquired items equally. Members contribute affordable amounts over specified periods, facilitating collective grocery buying (Mabika, 2018; Mabika and Tengeh, 2021).

Stokvels' success hinges largely on collective goals, trust, cultivating a sense of community and leveraging their social and economic capital. There are reportedly over 800,000 stokvels in South Africa (representing more than 11 million persons, the collective value of which is more than ZAR50 billion annually), with 20% of these recognized as grocery stokvels (Bophela and Khumalo, 2019). Grocery stokvels, mostly women-led, primarily aim to mitigate household food insecurity and procure long shelf-life items and staples, often in bulk and destined for their annual circular migration to rural homelands or distributed to extended families (Bophela and Khumalo, 2019). These grocery stokvels engage with various actors and stakeholders in the food system. However, what remains unclear is the potential power and influence of stakeholders, such as the banking sector and wholesale food outlets, in driving demand for and access to affordable, healthy food. It is imperative to elucidate the roles of these entities and meso-level actors and institutions that may engage with stakeholders, allowing for the application of social and economic leverage. Historically, stokvels have primarily operated outside the purview of the banking sector, but recent developments have seen some interaction. Their collective bargaining power with the food retail sector has been largely unexplored. While recent research by Lappeman et al. (2020) delves into these relationships, shedding light on the dynamics between savings groups and retail and wholesale suppliers (Lappeman et al., 2020), it is noteworthy that these interactions may not necessarily be focused on increasing demand for healthy eating. The study reveals that the power dynamics between stokvels and suppliers are geared toward fostering loyalty within the supply chain rather than promoting access to healthier food options. To enhance the understanding of stakeholder dynamics in promoting access to healthy food, it is crucial to identify additional stakeholders, both within and outside the current engagement landscape, who could play pivotal roles in shaping food systems. This comprehensive approach will enable a more nuanced evaluation of the potential leverage that various stakeholders hold in advancing the cause of affordable and healthy food access.

This study used a qualitative approach to address the following objectives: (i) identify stakeholders and meso-level actors that may interact and engage with local grocery stokvels or similar community informal savings groups to mitigate food insecurity and improve access to healthy foods, (ii) explore stakeholders' perceptions of how stokvels' function and how this might be applied to improve the demand for and access to affordable, healthy foods, and (iii) gather information about their interaction and engagement with

stokvels and the power they may have to influence access to healthy food.

2 Methods

Using stakeholder mapping, we identified various actors within the food system framework (Figure 1) that may currently engage with or have the potential to engage with stakeholders. We also identified how this engagement might increase regular access to healthy, affordable food for stokvel members. Stakeholders included the formal and informal retail and wholesale sectors, formal and informal financial institutions, social and economic development organizations, urban planning and agriculture, groups based on cultural or social salience (faith-based organizations, community networks, NGOs), the health sector within local and provincial governments, food producers, and providers of "last mile distribution" or transport.

2.1 Identification of stakeholders and meso-level actors that interact and engage with stokvels

The research team initially conducted a stakeholder mapping analysis (Rabinowitz, 2015; Australian Department of Health, 2023) to identify stakeholders at meso- and macro-levels who either currently engage with stokvels or could potentially have direct or indirect interests in enhancing stokvels' access to healthy and affordable food options, thereby influencing household food security, food consumption, and procurement. These stakeholders were categorized based on their perceived level of influence and interest (see Figure 1). For the purposes of this study, a stakeholder was defined as any individual or group that directly or indirectly influences stokvels within the food system or provides insights related to the study objectives. Subsequently, in collaboration with a key informant previously involved in stokvel research, the stakeholder map was reviewed, resulting in a revised list of stakeholders (current and potential), with a focus on local actors or organizations. While most identified stakeholders were based in the City of Cape Town or the Western Cape Province, some, particularly in the financial sector, had a national presence. These stakeholders were further categorized based on their perceived power and influence on stokvels.

The study then employed the snowball sampling technique to identify industry or sector focal contacts of the identified stakeholders, who could in turn refer the research team to additional stakeholders for interviews. Despite efforts to arrange interviews, some invitees did not respond to emails or phone calls (non-responsive after up to five attempts at contact), while in other cases, stakeholders initially responded but ultimately canceled scheduled interviews due to competing priorities. Consequently, a total of 21 participants were recruited and interviewed across various sectors at the meso- and macro-levels (see Table 1). The strategic decision to exclude stokvel members and leaders from this study was motivated by the goal of obtaining unbiased and independent perspectives from external entities. Since the nature of our engagement was primarily one-on-one rather than a focus group setting, the rationale for excluding stokvel members based on unbiased and independent factors may not be as explicitly justifiable. It is pertinent to note that in-depth interactions with stokvel members were conducted separately using the Discrete Choice Experiment (DCE) and other engagement methods to glean insights specific to their experiences. However, it is essential to clarify that the primary emphasis of this study was on the perceptions of stakeholders who engage or have the potential to engage with stokvels in promoting access to healthy and affordable food options. Our objective was to capture the external perspectives of food system actors, potential stakeholders, and key informants not directly involved in stokvel operations, aiming for a comprehensive understanding of the broader dynamics influencing stokvels within the context of healthy food accessibility.

2.2 Study population

The study adopted the snowball sampling technique of meso- and macro-level influencers in the areas of interest and the chain referral technique by identifying industry or sector focal contacts who could then refer the research team to additional stakeholders to interview. A stakeholder, in this study, was defined as any person or group who influences or is influenced by stokvels with specific reference to the food system (Rabinowitz, 2015; Australian Department of Health, 2023). This broad definition was further adapted as it covers any persons or groups that may provide insights to and that address the objectives of the study, directly or indirectly. Potential participants were recruited through publicly available contact details. All efforts were made to arrange interviews, however, some invitees did not respond to emails or telephonic messages (non-responsive after up to five attempts at contact), and in some cases, identified stakeholders did respond but ultimately defaulted on the day of the scheduled interviews, as they had to attend to other competing priorities. As a result, a total of 21 participants were recruited and interviewed across various sectors at the meso- and macro- levels (Table 1). The decision to exclude stokvel members and leaders from this study was strategic, aimed at obtaining unbiased and independent views from external parties. We concentrated on gathering insights from food system actors, potential stakeholders, and key informants who are not directly involved in stokvel operations.

2.3 Stakeholder power analysis

Based on our formative systematic review (Lukwa et al., 2022) and key informant discussions, we posited that stakeholders may have potential to influence the way stokvels operate with respect to their savings and food purchasing practices. In the context of this study, we further conceptualized a power/influence and interest matrix, against which to plot these stakeholders. Bally and Cesuroglu (Bally and Cesuroglu, 2020) defined the three levels of power/influence as: (i) Control: where the stakeholder has the power to control how stokvels operate, (ii) Influence: where the stakeholder may influence decisions taken by stokvels with

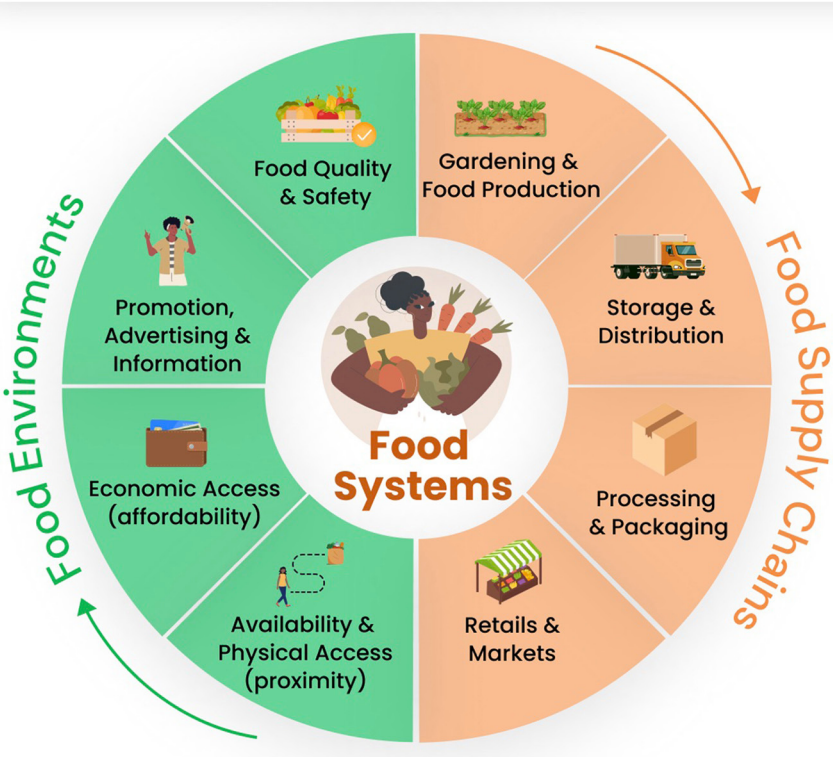

FIGURE 1
Urban food systems adapted from Tumwesigye et al. (2019).

regard to their purchasing and procurement practices and food choice decisions, and (iii) Interest/concern: where the stakeholder is interested in the these practices and decisions by stokvels, but has no significant ability or mechanism to impact on them. However, in this study we only focused on 2 of the 3 levels thus, influence and interest. It is crucial to contextualize the operational environment of stokvels. Currently, there exists no national, provincial, or other regulatory framework exercising authoritative control over the formation, contributions, or activities of stokvels. This absence of formal regulatory oversight significantly influenced our choice to focus our analysis on levels where we observed the most substantial interactions and impacts.

It is essential to recognize that although formal legislative control may be absent, stokvels often adhere to a set of informal rules or norms when engaging with stakeholders. Despite lacking legal codification, these informal rules wield considerable influence over how stokvels function and interact with various entities. The interactions and resultant norms emerging at these levels are pivotal in comprehending the dynamics of stokvels, forming the foundation of our targeted analysis. By concentrating on these levels, our objective was to unveil the intricate and informal regulatory mechanisms guiding stokvel operations and their interactions within the broader socio-economic landscape. This methodological approach enabled us to offer a more nuanced and detailed exploration of stokvels within their authentic operational context. The power and influence matrix were developed considering the stakeholder's position in the food environment and/or food supply chain. We also considered the level of interest that each stakeholder may have in developing relationships with stokvels, toward a mutual benefit.

We hypothesized an expected level of power/influence and interest for each stakeholder or meso-level actor at the outset of the study (Tables 1, 2). We used this framework in summarizing our study findings in the form of key themes and sub-themes, exploring perceptions of how stokvels might leverage their social and economic capital to improve the demand for and access to affordable, healthy food. We also interrogated the potential interest for and means by which stakeholders might engage with stokvels and their perceptions of their power to influence these decisions, maximizing value, partnerships, and toward a mutual benefit.

2.4 Interviews

The decision to exclude Interviews were undertaken by a proficient team of two interviewers, both extensively trained and possessing prior knowledge about stokvels, thus bringing a nuanced understanding to their roles in the study and interactions with stakeholders. Stakeholders, particularly those in proximal distance, were provided with the option of face-to-face meetings to facilitate a more personalized engagement. The interviews were primarily conducted through online platforms, utilizing Microsoft Teams or Zoom, based on stakeholders' preferences. This approach accommodated the geographical dispersion of stakeholders and aimed to ensure broader participation, considering the

TABLE 1 Stakeholders interviewed for the study[a].

Urban food system/s	Stakeholder	Sector category	Reasons to involve them	No of interviewees ($N = 21$)	Influence	Interest
Formal and informal food retail	Retail Food Stores (local Supermarkets/Food Store Managers)	Formal and informal food retail	To better understand current and potential interactions of stokvels and the formal food retail industry	Interviewed ($N = 1$)	++	+++
Formal and informal food retail	Wholesale Food Dealer	Food wholesale	To understand wholesale buying, supply-demand, bulk purchasing, and food purchase drivers	Interviewed ($N = 1$)	+++	++
Economic access/proximity/storage and distribution	Food redistribution (e.g., Food forward SA)	Food charity (NPO)	To understand food choice decisions and food insecurity, community organizations that address food insecurity	Interviewed ($N = 1$)	+	+
Production/Proximity/ Economic Access	Social Enterprise vegetable gardening (e.g., Fresh Life Produce)	Social enterprise agriculture	To explore current and potential interactions of stokvels with local and urban food vegetable gardening	Interviewed ($N = 5$)	+	+
Cultural and social salience/economic access	Community action networks (Cape Town)	Community group (food charity)	To understand food choice decisions and food insecurity, community organizations that address food insecurity	Interviewed ($N = 2$)	+	++
Economic access	Retail banking (e.g., retail banks with stokvel account offerings)	Retail finance	To better understand the relationship between the retail banking sector and stokvels	Interviewed ($N = 3$)	++	++
Proximity/Storage and Distribution	Social enterprise and "last mile distribution."	Social enterprise consultancy	To explore current and potential interactions with "last mile distribution" partners and stokvels	Interviewed ($N = 3$)	++	++
Cultural and social salience/economic access	Social enterprise and micro-finance (e.g., Spoon Money)	Micro-finance	To better understand the relationship between the micro-finance sector and stokvels	Interviewed ($N = 2$)	+++	+++
Cultural and social salience/economic access	Informal Savings Associations (e.g., SaveAct/NASSA)	Social enterprise informal savings groups	To explore the governance, context, decision-making processes, collective efficacy, agency, health, and food choice decisions	Interviewed ($N = 1$)	+++	++
Cultural and social salience	Food Security and Agriculture (Food Security Initiative)	Academia/Research	To understand food choice decisions and food insecurity, community strategies that address food-insecurity	Interviewed ($N = 2$)	+	+++

[a]In the context of this study, the terms "influence" and "interest" are evaluated on a scale ranging from one to three crosses (+), where a higher number of crosses indicate a greater degree of influence or interest. This scale allows for a nuanced assessment of the varying levels of impact and engagement attributed to these factors.

constraints posed by ongoing travel restrictions during the COVID-19 pandemic.

Commencing in September 2021 and concluding in May 2022, the data collection timeline spanned a period of 9 months. Utilizing a semi-structured interview format, we employed a strategic blend of standardized and adaptive questioning tailored to the unique context of each stakeholder. The interview questions, outlined in the appendices, were meticulously crafted to elicit both quantitative and qualitative information. Topics ranged from stakeholders' comprehension of stokvels to their perceptions of stokvels' socio-economic influence and potential roles in enhancing access to healthy foods. Each interview typically lasted 30 min or less and was conducted in English. The flexibility embedded in our approach, adjusting questions based on the stakeholder's background and relationship to stokvels, ensured the collection of comprehensive and context-specific data.

2.5 Data analysis

Data preparation for analyses followed standard guidelines for qualitative research. Stakeholder interviews were coded using NVivo 12 (QSR International Pty Ltd). This process involved identifying and highlighting key phrases and concepts that aligned with the study's objectives. ATL, as the primary researcher, undertook the initial coding phase, systematically organizing the data into mutually exclusive yet exhaustive thematic categories. This coding was grounded in the content analysis methodology. To ensure rigor and consistency in the analysis, OA and EVL, both

TABLE 2 Stakeholders who did not respond to requests for interviews or who chose not to participate[a].

Urban food system/s	Stakeholder	Sector category	Reasons to involve them	No of persons contacted ($N = 6$)	Influence	Interest
Formal and informal retail	Spaza association (e.g., Somalia Association)	Informal food retail	To better understand current and potential interactions of stokvels and the informal food retail industry	Not Interviewed ($N = 1$)	++	++
Cultural and social salience/production/ processing and packaging	Local food service (café) and production (e.g., Spinach King)	Food outlet, takeaways, food production, and distribution	To understand the agricultural supply chain of fruit and veg from "farm to table," social marketing, demand side	Not interviewed ($N = 1$)	++	+
Formal and informal retail	Formal local restaurant (e.g., 4Roomed Ekasi)	Food outlet, seated dining	To understand the demand side, foodways, and food choice decisions	Not Interviewed ($N = 1$)	+	+
Food quality and safety/cultural and social salience	Local government (e.g., transport, social development, housing, health, and agriculture, sports and culture, parks and recreation, sanitation)	Local government	To identify possible and mutually beneficial interactions between stokvels and local government	Not Interviewed ($N = 1$)	+++	++
Economic access	Retail insurance sector (e.g., funeral policies)	Retail Insurance	To better understand the relationship between the retail insurance sector and stokvels	Not Interviewed ($N = 1$)	++	++
Cultural and social salience/economic access	Retail home improvement (e.g., home appliances and furnishings)	Retail household and building supply	To better understand the relationship between household and building supply sector and stokvels	Not Interviewed ($N = 1$)	+	+
Food quality and safety/cultural and social salience	Western Cape Department of Health	Government department	To get the political buy-in of the government in the fight against unhealthy eating	Not Interviewed ($N = 1$)	++	+
Economic access	Economic Development (Western Cape Economic Development Partnership)	NPO partnering with local government	To better understand the role of stokvels in the township economy, social entrepreneurship	Not Interviewed ($N = 1$)	++	++
Cultural and social salience	Food Security and Agriculture (Food Security Initiative)	Academia/research	To understand food choice decisions and food insecurity, community strategies that address food-insecurity	Not Interviewed ($N = 1$)	+	+++
All	Food security and food systems (e.g., COE for Food Security UNESCO Chair in African Food Systems)	Academia/research	To understand food choice decisions and food insecurity, community strategies that address food-insecurity	Not Interviewed ($N = 1$)	+	+++[b]

[a]In the context of this study, the terms "influence" and "interest" are evaluated on a scale ranging from one to three crosses (+), where a higher number of crosses indicate a greater degree of influence or interest. This scale allows for a nuanced assessment of the varying levels of impact and engagement attributed to these factors.
[b]Although there were only 6 stakeholders not interviewed in total, the sum of stakeholders not interviewed per category surpasses this number because certain stakeholders represent multiple categories.

serving in supervisory capacities, reviewed and validated the coded data and themes. Their role was primarily oversight, providing expert guidance and ensuring the integrity of the analysis.

3 Results

In our study, we successfully engaged with 78% of the identified stakeholders, resulting in interviews with 21 out of the 27 initially targeted. These interviewees spanned various sectors within the food system: 1 from Formal and Informal Food Retail, 1 from Food Wholesale, 1 representing Food Charity (Non-profit organization), 5 from Social Enterprise Agriculture, 2 from Community Groups (Food Charity), 3 in Retail Finance, 3 in Social Enterprise Consultancy, 2 in Micro-Finance, 1 in Social Enterprise Informal Savings Groups, and 2 from Academia/Research (Figure 2). Unfortunately, a non-response rate of 22% led to the absence of some perspectives, particularly from sectors such as Informal Food Retail, Local and Provincial Government, Retail Insurance, and Retail Household and Building Supply. Another notable absence was the National Stokvel Association of South Africa (NASSA), which despite numerous attempts at engagement throughout this dissertation, did not respond to our invitations. Despite these gaps, our study provides a detailed exploration of stakeholder perceptions on stokvels' role in the urban food system and their potential

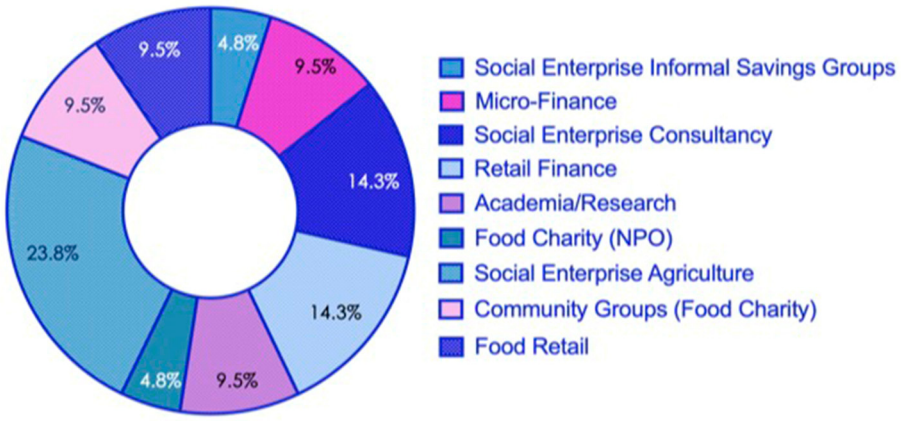

FIGURE 2
Stakeholder representation by sector proportion.

to utilize social and economic capital to improve access to healthy foods.

3.1 Exploring stakeholder perceptions of how stokvels function

Stakeholders in our study commonly viewed stokvels as diverse and autonomous entities, operating under social norms and often beyond formal state regulatory frameworks. Their governance structures were perceived as intricate, posing challenges for comprehension by those not directly involved with them. An academic legal stakeholder insightfully summarized stokvels, capturing their essence and the complexity of their operational framework:

> "A stokvel is an association, an unincorporated association run normally on, according to indigenous law or vernacular norms" (Academic stakeholder: Law).

Stokvels are widely recognized as self-regulating social groups, adhering to rules set by their members, and functioning in ways akin to a bank. They hold regular meetings where members contribute to a collective fund, thereby strengthening social networks and partnerships. This communal aspect of stokvels, as highlighted by an academic stakeholder specializing in law, emphasizes their role in fostering community ties and financial collaboration,

> "Stokvels in South Africa exist in places that are in many ways only lightly touched by state regulations" (Academic stakeholder: Law).
>
> "It's essentially a self-governed institution set up according to a system of norms developed by the participants themselves in a contract" (Academic stakeholder: Law).
>
> "I think that you could say that social norms govern it, and some of those social norms might be entrenched in terms of long-established rules within that particular association of ways to do things" (Academic stakeholder: Law).

Stakeholders in our study often viewed stokvels as a mechanism predominantly utilized by women for saving money and accessing credit and capital. This perception aligns with the role of stokvels as informal financial institutions, as one stakeholder aptly compared them to an informal credit union.

> "Stokvels essentially provide a mechanism to save money and to access credit without the red tape of statutory lenders" (Academic stakeholder: Law).
>
> "A lot of stokvels actually lend money as well. So they set on the capital value balance and then to generate more money for the stokvels, they lend it, count to the members as well."
>
> (Social enterprise stakeholder)
>
> "[There are] different reasons that people have stokvels, but effectively I guess it's, it's sort of [an] access to capital issue and seeing how combined efforts in group collection of finances can enable one to save and to... look at... how we benefit from acting in a group, whether it's such things as ensuring that I save every month or whether it's group discounts or whatever the case might be."
>
> (Academic stakeholder: Law)

Other stakeholders suggested that the structure and function of stokvels varied based on their purpose. For instance, a representative from a national non-profit social enterprise focused on community empowerment and breaking the cycle of poverty offered a unique perspective. While recognizing the financial aspects of stokvels in terms of collective saving and lending, they also emphasized their role in fostering social cohesion. They observed that stokvels operate informally and socially, pooling and distributing resources among members, thereby enhancing their economic leverage, and purchasing power.

> "They use it by making weekly or monthly or fortnightly or whatever it is contributions they provide capital in the group" (Academic stakeholder: Law).

3.2 Social convention and governance structure

Stakeholder experiences with stokvels were described as constructing a sense of community among members, trust, and social cohesion. However, beyond this, most of the stakeholders interviewed had little to no direct experience with or perception of the specific governance of stokvels. One stakeholder, an academic involved in commercial law, who has had direct interactions with stokvels, reported that a stokvel's governance structure may not be recognized within a formal legal framework. However, to stokvel members, it is inclusive and supportive of transparency for group decisions and fostering social inclusion. In their experience, members experience of stokvels, is that they have a highly formal and respected governance structure, and that they use their collective efficacy and social cohesion to agree upon and bring about positive changes. As such, the governance structure of stokvels is established according to local conventions where traditional authorities of communities, may even be consulted in some instances, and social norms are used to govern. These include elements such as positive obligation, where members must contribute or invest to benefit from all participants' collective efforts, in effect, a social contract.

> "... a contract is a law that parties agree will govern a relationship, or maybe a stokvel constitution can be seen in those terms. Not necessarily in those terms like, you know, what in the law of general application would meet the contract definition. But, maybe, an indigenous sort of contract."
> (Academic stakeholder: Law)

Stakeholders observed that in stokvels, older members often set the rules. While some stokvels involve signed contracts, others rely solely on verbal agreements for member contributions. This variability can lead to legal ambiguities in resolving disputes. Consequently, the absence of formal legal agreements among members can not only heighten internal conflicts but also poses challenges in establishing formalized partnerships with external institutions, such as banks.

> They stated,
> "It is mostly very traditional. It is locked in a kind of context, particularly like, you know, a rural, pre-colonial, almost context. And, of course, indigenous law evolves over time as circumstances change. So the constitutional court often said that it is a living law" (Academic stakeholder: Law).

Overall, stakeholders demonstrated a certain level of understanding regarding stokvels, highlighting their informal, community-centric nature. They recognized stokvels as pivotal in encouraging household savings and potentially in securing credit. Additionally, the significance of social norms, conventions, and autonomy in the operation of stokvels was a key aspect of their understanding. This reflects a general awareness of the multifaceted role that stokvels play within communities.

3.3 Conflict resolution with respect to decision making and the social contract

A stakeholder involved in the "last mile distribution" of food, aimed at connecting formal retail environments with low-income communities, noted that internal conflicts among stokvel members could significantly influence their food purchasing choices.

> "Those who make the loudest noise may have their way, and it may be choosing unhealthy food packages."
> (Storage and distribution stakeholder)

Contrary to the general observation about transparency in stokvels, a representative from a local grocery distribution service connected to a mobile app suggested that a lack of transparency can pose a challenge to the cohesive functioning of stokvels. This indicates that transparency is a critical factor in maintaining the structural integrity and effectiveness of these groups.

The social contract and norms within stokvels play a crucial role in ensuring economic collaboration among members. In cases of non-compliance, such as defaulting on stokvel payments, peer enforcement mechanisms are often employed. These can include harsh measures like property damage, public shaming, or coercion, as explained by a stakeholder with expertise in commercial law. This strict enforcement underscores the importance of adherence to the group's agreements and the upholding of its social norms. This approach is seen as vital for maintaining the integrity and functionality of the stokvel.

3.4 Maximizing value

Stakeholders provided limited insights on how stokvels could use their collective purchasing power to enhance their value proposition. A representative from a food charity focusing on surplus food recovery and redistribution highlighted their cost savings and waste reduction strategies, alongside offering tax certificates to incentivize donations. These incentives foster ongoing collaborations with farmers and food retailers, creating a significant value proposition. However, the stakeholder was uncertain about the specific value proposition stokvels might offer to the retail and wholesale food sectors.

A representative from a Pan-African insurance company expressed the view that stokvels effectively maximize value by leveraging their collective economic power to pool resources. From this perspective, the enhancement of food security is seen as a secondary outcome of these collective activities, rather than their primary objective.

> "I don't know; maybe this is debatable. I'm not convinced that grocery stokvels are aimed at food security. I think it's a, and it's a good by product. But I think it's really about

> buying power. It's about maximizing… value to me with, uh, with a limited or discrete amount of resources" (Banking sector stakeholder).

While many stokvel members find satisfaction and utility in their arrangements, not all experiences are positive. A stakeholder from the retail finance sector mentioned that some members view stokvels as a business opportunity, focusing on financial returns, while others prefer straightforward transactions to receive their paid-for products without complex business dealings. The utility for these members lies in the receipt of goods, and business arrangements can diminish their satisfaction. Additionally, there is a perception that peer pressure within stokvels can lead to borrowing and subsequent debt accumulation. This complexity in member experiences and expectations highlights the varied nature of stokvel participation.

> "We do find even in our savings group; there can be elements which are driving and pressuring people to borrow as much as possible because they understand that maximizing lending maximizes returns. And they begin to try to tilt the balance toward it being more like a business than savings, a safe savings space" (Social enterprise informal savings group).

3.5 Partnerships and driving mutual benefit

A stakeholder from a community organization focused on urban food gardens discussed the complexity of navigating social networks within stokvels. Despite these challenges, they noted that stokvels have gradually gained cooperation from various stakeholders, evolving from being seen merely as consumers to partners in networks. For instance, some stokvels have formalized relationships with retail banks, benefiting from the security offered for their funds. Initially, banks viewed stokvels just as product consumers, but this perception has shifted, recognizing them as a distinct market segment and even potential competition. This evolution reflects the growing significance of stokvels in the financial landscape.

> "The success is very limited, and that is predominantly because stokvels for the longest of time within the bank were seen as product-consumers and not as a segment. So, they then hold their architecture and growth" (A stakeholder from the banking sector).

While stakeholders generally agree that financial institutions benefit from relationships with stokvels, the process of formalizing these partnerships has been challenging, particularly due to the extensive documentation required to establish legal partnerships. A stakeholder from a financial institution highlighted this complexity. This situation underscores the intricate balance between the informal nature of stokvels and the formal requirements of financial institutions.

> "And when we were doing some of the work around investments, that was typically our challenge in that a lot of them, of course, don't have formal documents, and we would require a constitution or something to onboard them as clients" (Banking sector stakeholder).

The mutual benefits arising from the interaction between stakeholders and stokvels were a key area of exploration in our study. One stakeholder highlighted the concrete advantages for stokvels collaborating with banks, such as earning interest on deposited funds, enhanced savings capacity, the convenience of electronic fund transfers, and the potential use of bank premises for meetings. In reciprocation, certain stakeholder initiatives focus on safeguarding the financial interests of stokvel members. For instance, a representative from a non-profit initiative working with stokvels discussed their engagement in saving through shares:

> "So, what helps a lot is the saving in shares, which means saving in lump sums. So that's simplified as the math: getting a stamp for every share you buy in the record book. Puts the information in the hands of the member. So, it's very reassuring for members, making it hard for anybody in the group to crook the system. So, that's some of what is powerful about it" (Food Charity (Non-profit organization).

Fostering a transparent and trusting relationship between potential stokvel members and the initiative has been crucial. The approach encourages mutual understanding and cooperation. Additionally, it was emphasized that stokvels should aim for a symbiotic relationship with retailers, enhancing benefits for both parties. This approach underlines the importance of building strong, trust-based connections within the stokvel ecosystem.

3.6 Leveraging the power of stokvels to improve demand for and access to affordable, healthy food

Our study highlights a nuanced relationship between stokvels and food security, particularly in their role in influencing the procurement and consumption of what is perceived as healthy food. While stokvels and their interactions with other stakeholders appear to have some impact on food choices, it is crucial to note that the strength of this link is not uniform and can vary widely. The organizational structures and practices of local stokvels, as we observed, can both facilitate and impede their capacity to procure affordable, nutritious food. This is further complicated by the fact that the concept of 'healthy food' is not universally defined and is deeply embedded in cultural contexts. For instance, what constitutes nutritious food in one community might differ significantly in another, reflecting varying dietary traditions and preferences. Moreover, our findings indicate that while stokvels may have the potential to improve access to fresh produce and influence food choices through retail interactions, these are not necessarily aligned with the primary objectives of food security and nutrition. Often, the focus of stokvels may be on economic benefits and immediate food availability rather than the long-term nutritional value of the food procured.

This highlights a critical gap between the operational goals of stokvels and the broader objectives of enhancing food security and nutritional quality.

Additionally, the frequency and nature of purchasing decisions made by stokvels often revolve around affordability and bulk buying, which may not always prioritize the healthiest options. The influence of retailers and market dynamics also plays a significant role in shaping these choices, potentially steering stokvels toward more economically viable, yet less nutritious, food products. Considering these findings, it is apparent that while stokvels have a role in shaping food procurement patterns, their impact on advancing food security and nutrition is complex and context dependent.

> "There needs to be a way of linking stokvels together to strengthen their buying power regardless of what they buy."
>
> (Social enterprise-Community Action Network stakeholder)
>
> "The stokvel, really, really, could be very powerful in changing that. If the stokvels could pull their buying power... they could go and push back and say okay, we don't want this type of product, we'd rather have this type of product."
>
> (Social enterprise-Community Action Network stakeholder)
>
> "There's a big education part of this about teaching women what is healthy and what isn't. How one could change their diets from too much carb, too much fat, too greater portion of fresh nutrient-rich vitamin-rich vegetables" (Food charity, Non-profit organization).

3.7 Defining healthy food and promoting healthy food intake

The concept of healthy food varied among stakeholders interviewed in our study. One notable observation came from a professor experienced in food systems, who emphasized the distinction between healthy and unhealthy foods. This stakeholder's perspective, illustrated through a rhetorical question, sheds light on the subjective nature of defining 'healthy food' in the context of stokvels and food consumption patterns.

> "…What is healthy? … Umhmm, there's some subjectivity, but there are also some things that are not subjective. So, we do know what is generally healthy and what we do know, very well, what is unhealthy" (Academic in food systems research).
>
> Other stakeholders also responded:
>
> "Whilst it's a lovely idea that one wants to encourage and try and promote healthy eating, are you sure that the communities that you want to impact, are you sure that they are interested in your ideal of eating healthy food?" (Food charity, Non-profit organization)
>
> "On our on-demand side of things, we're basically ordering from the App, more than 90% is not healthy food" (Social enterprise-last mile distribution).

The distinction between healthy and unhealthy foods, such as the contrast between highly processed "junk foods" and fresh fruits and vegetables, was acknowledged by stakeholders, yet there was a subjective interpretation of what constitutes healthy eating, particularly among basic food items. A general agreement emerged that long shelf-life foods are typically less healthy, while vegetables are seen as healthy choices. One stakeholder, involved in storage and "last mile distribution," highlighted the demand for healthy food among low-income households, but identified two major barriers: a lack of awareness about healthy food options, and issues with affordability and accessibility of these foods.

> "If they know what healthy food is... I think that might be one of the big issues that we might have today is that people don't realize... what some of the food might have... and they do not care drinking a lot of cool drinks" (Storage and distribution stakeholder).
>
> "There's a lot of fundamental changes that need to be made to make healthy eating more convenient, more affordable" (Food Charity; Non-profit organization).

A stakeholder from an informal trader's initiative, focused on impacting the food value chain, observed a strong demand for fresh food, noting that fresh produce is often a staple in most households. They discussed the interconnected relationships between spaza shops (informal retail), formal retail, and farms. A key point raised was that some traders might compromise on quality, and the cost of fresh foods can pose a limitation. This perspective sheds light on the challenges within the food distribution network, especially in terms of quality and affordability.

> "So, … I will do it in two ways. I would, I would do activations at these shops. You know, promoting healthy lifestyle and so on. But I would also work most importantly, the same communities in South Africa and not driven by health choices.
>
> "Nice pricing point of view, whatever healthy alternatives, it has to be. There has to be an incentive from a price point of view.
>
> So you, you'd, you'd have to put something together. That's about price point of view to competitive.

And then just market it through those partnerships in my model particularly you know, if I'm using those, those community leaders who are really influencers in the way they stay, it'd be even becomes easier." (Informal Traders Initiative)

A stakeholder from a non-profit food charity highlighted that while there is a demand for healthy diets among low socio-economic households, the greatest challenges remain accessibility and cost. This underscores the complex interplay between socio-economic status and the ability to maintain a healthy diet.

> "So, the issue is, they love to eat healthy, they just simply can't afford to" (Food Charity; Non-profit organization).
>
> "What women tell us is when they go to the store there is a limited amount of money. So, what do they spend money on

first? They try and mentally construct what is needed to put a plate of food on the table" (Social enterprise-Food systems).

"There is a direct connection between what people buy and the cooking process to put that on the table" (Social enterprise-Food systems).

A common practice among stokvel members, especially during the festive period, involves bulk collective purchasing of long shelf-life dietary staples. This approach serves a dual purpose: sharing with extended families and mitigating high expenses in December. It ensures food availability in the new year, a time when funds are typically lower. This strategy reflects the foresight and communal approach of stokvel members in managing resources.

"…the only time these things happen is in December. Whereby, you, you go to your bargain wholesalers... These ladies come together [with] a huge amount of money that they give to these wholesalers for groceries, but mainly it's the staple food, it will be your rice, your maize meal, your flour sugar. And yeah, those are commodities that most families join the stokvels for…." (Social enterprise-Food systems)

3.8 Proximity to fresh produce stakeholders

The proximity of fresh produce was emphasized by several stakeholders, including those from social enterprise-last mile distribution, academic and research, retail finance, food charity, community groups, and social enterprise agriculture. They suggested that stokvels could form beneficial partnerships with nearby farms to source fresh produce. Such partnerships could help farmers and wholesalers reduce waste from perishable goods and offer advantages like minimized transport or delivery costs, which would be particularly beneficial for stokvels.

"I mean, off the cuff, I think if stokvels could say they are quite organized actually. If stokvels could have agreements with farmers that are in close proximity with them" (Food Charity; Non-profit organization).

"And so they get more healthy food out of the equation. But it could only work if they are in close proximity because the challenge is that last mile delivery" (Food Charity; Non-profit organization).

"Last mile distribution is one of the biggest challenges to ensure food access"

(Storage and distribution stakeholder).

A recurring sub-theme in the discussions was the ability of stokvels to negotiate lower prices, thus enhancing their purchasing power, a point echoed by most participants. A participant from the Philippi market initiative highlighted those aggregating resources as a group leads to greater benefits than individual efforts. This approach, aimed at securing lower prices and stronger buying power, coupled with partnerships with farmers, was seen as a potential catalyst for increasing healthy food consumption. This concept was further supported by insights from two stakeholders:

"If stokvels could have agreements with farmers that are in close proximity… to them, um hmm, it could work that the farmer could give them preferential rates for the food. And so the stokvel will make a bit of saving" (Stakeholder 1: food gardening initiative).

"… you could work at the sliding scale with the farmer. The farmer says okay I will supply you with one ton and you get it at an X-rate, which is a good rate. But if you buy five tons I give you an even better rate kind of thing (Stakeholder 2: food gardening initiative).

"And in that way the stokvel would get more "bang for their buck" kind of thing. And so they get more healthy food out of the equation. But it could only work if they are in close proximity because the challenge is that last mile delivery" (Stakeholder 2: food gardening initiative).

"And you know, through...partnerships in collaborations with stokvels, we can have... much healthier fresh produce being made available to marginalized groups within the society" (Stakeholder 1: food gardening initiative).

3.9 Retailers' influence on food purchases

Retailer discounts significantly influence the purchasing decisions of stokvel members. Stakeholders noted a preference for basic, long shelf-life foods, which are often packaged by retailers specifically for stokvel sales. However, the availability of inexpensive, long-life, less healthy "combos" at discounted prices presents a challenge to healthy eating. The affordability of healthier options within the food environment was also identified as a key factor affecting purchasing choices.

"If, say, Unilever, wanna push a new size of can of Koo beans that are discounted massively. Pushing it at a trade phase and the stokvels will not really be having option" (Food charity; Non-profit organization).

Though most of the stakeholders mentioned that many long-shelf items do not fit in the healthy lifestyle category, some foods, such as plant-based proteins like lentils and dried beans were regarded as healthy and available in the category of long-shelf-life foods.

"As much as you want to change the behavior, it's actually the people who hold the money who have the purchasing decision" (Social enterprise-Community Action Network stakeholder).

One stakeholder from a social enterprise-community action network focusing on food gardens pointed out that despite various efforts, there remains an unmet need for the recommended intake of fruits and vegetables for optimal health. Additionally, there was a lack of stakeholder input on whether the quantity consumed, or the methods of food preparation contributed to the nutritional value in a healthy lifestyle. This gap in the conversation was notable, especially given the context of a retail industry stakeholder who had conducted extensive studies on stokvels,

> "…there will be certain kinds of product[s] that people want, which is common in the marketplace. Then, the retailers might influence that decision by offering special or bulk discounts, which could influence the decision" (Retail industry stakeholder).
>
> "We would be very happy to partner... in any way if we can... try and help spaza shops distribute these types of products" (Storage and distribution stakeholder).

3.10 Frequency of purchasing products

Stakeholders proposed that stokvel members could benefit from more frequent food purchases, such as weekly or monthly, instead of the current practice of biannual or bulk festive buying. This change could enable the incorporation of fresher, healthier foods into their diets. However, the shift from purchasing longer shelf-life items, which are more economically advantageous, may not align with stokvels' primary objective of saving. The quality of products was emphasized as a greater concern than availability. Additionally, addressing broader ecosystem issues was seen as a key to improving access to healthy foods.

4 Discussion

This study explored stakeholder perceptions and potential leveraging of saving groups in South Africa's urban, low-income settings, particularly concerning food systems. Stakeholder mapping was employed to understand how meso-level actors interacted with various stokvels and to gain insights into improving access to healthy food through these associations. The study successfully engaged with 78% of selected stakeholders, representing ten food system actors across different sectors, including formal and informal food retail, food wholesale, food charity (NPO), social enterprise agriculture, community groups, retail finance, social enterprise consultancy, micro-finance, social enterprise informal savings groups, and academia/research. While some sectors were well-represented, there were unrepresented actors, such as informal food retail, food production and distribution, local government, retail insurance, retail household and building supply, government departments, and NPOs partnering with local government.

Stakeholders view stokvels as tools for savings, credit accessibility, and capital growth. Stakeholders agreed on the broad definition of stokvels and that their goal was to maximize value through partnerships and social networks whose mandate was driven by mutual benefit. Therefore, stokvels serve an economic and social function (Hevener, 2006). It was also evident in the study as several stakeholders maintained that social capital was arguably the strongest driver of stokvels' success. Previous research has suggested that stokvels act as social and economic instruments that provide members with funding for planned and unplanned events (Mashigo and Schoeman, 2012). The latter concurs with sentiments shared by some stakeholders as they argued that access to capital had been an issue among low-socioeconomic households. Hence, stokvels were formed based on how they leverage combined efforts in group collection of finances to enable individuals to save. They are seen as a catalyst for low-income people, mobilizing financial services without formal financial institutions (Irving, 2005; Kaseke, 2013).

Stokvels function through regular meetings that cultivate social networks and partnerships (Lappeman et al., 2020) the stakeholder perceptions in our study on how stokvels function corroborated this finding. The results further aligned with a study in Malawi, which noted the diverse nature of stokvels, together with their classification as unincorporated associations regulated by social norms outside formal state controls, constitutes a substantial challenge when trying to interface with them and impose accountability via formal legal routes (Gondwe, 2022). The perception of women dominating stokvels (Matuku and Kaseke, 2014; Mulaudzi, 2017; Gwamanda, 2019; Ngcobo, 2019; Mabika and Tengeh, 2021) was further emphasized in our study. Women wield considerable influence in stokvels.

Our formative research, including findings by Lukwa et al. (2022), highlights that stokvels typically consist of members from the same community, family, or social network. This composition fosters a closely-knit structure, which is instrumental in cultivating mutual trust and a shared sense of identity among members. These attributes of stokvels not only enhance social cohesion but also contribute significantly to their role in South African culture. Extensive literature underscores the importance of stokvels as vital instruments for financial inclusion and empowerment, particularly in disadvantaged communities (Moliea, 2007; Response African Response Research, 2012; Barry, 2015; Tshandu, 2016; Holmes, 2017; Ngcobo and Chisasa, 2018a,b; Bäckman Kartal, 2019; Fairbridges Wertheim Becker, 2019; Lavagna-Slater and Powell, 2019; Nkambule et al., 2019; Mabika and Tengeh, 2021). By enabling financial participation for those who might otherwise be unable to afford it, stokvels play a pivotal role in reinforcing social conventions and promoting inclusivity within financial systems.

Informal stokvels, are predominantly reported to be community-based and operated without official oversight, thus often lacking clear rules and documentation. While this informality was reported to allow for flexibility and informal social networks, it was also perceived to increase the risk of financial disputes, mismanagement, and fraud (Fairbridges Wertheim Becker, 2019). This reflects our finding that the lack of formal agreements, governance structures and no direct experience with specific governance of stokvels, can result in conflicts and difficulties in conflict management in some stokvels. It is, therefore, important to institute governance processes that allow for transparency and compliance with rules and regulations.

Our stakeholders noted possible benefits for Stokvels in partnering with financial institutions, such as earning interest on deposited funds, enhanced savings capacity, the convenience of electronic fund transfers, and the potential use of bank premises for meetings. Another benefit is averting possible fraud amongst members (News24, 2019). Evidence shows that banks have already capitalized on the Stokvel savings structure, recognizing them as a distinct market segment and even potential competition, a sentiment our stakeholder's echo. The banks in South Africa have been proactive in adopting stokvel savings and investment for over 100 years (News24, 2019; Business Day, 2021; IOL, 2021). The bank accounts earn monetary interest on capital (ISSUU,

2023). This vehicle has been beneficial to both stokvels and financial institutions. The big banks are said only to capture ZAR 12 billion of a ZAR 50 billion stokvel industry (Business Day, 2021). More benefits can be derived if stokvel governance structures are more formalized and financial instructions play a role in sensitization on required paperwork such as a stokvel constitution. Mabika and Tengeh (2021) note the need to encourage stakeholders to acknowledge the inherent potential of stokvels and direct resources and expertise to bolster and empower this essential sector, thereby unlocking its full potential for the benefit of the communities involved and the wider economy. Stokvels will also benefit by having documents that reduce conflict and outline the entity's purpose. However, it was evident from our stakeholder's perceptions that such close relational proximity could be a safeguard, as members may be cautious or skeptical toward unfamiliar ideas or propositions from external entities. Similarly, the heightened social cohesion within stokvels, stemming from members' unified pursuit of a common financial objective, may fortify their resistance to external influences (Ojo, 2020).

With the stokvel features mentioned above and possible mutual benefits, it is important to explore how leveraging stokvels' power improves demand for and access to affordable, healthy food. There was a common understanding amongst the stakeholders that organizational structures and practices of local stokvels could either enhance or hinder their ability to demand and access affordable, nutritious food. Stakeholders reported differing perceptions of what constitutes 'healthy food', especially on long-life shelf foods, a common factor in grocery stokvels, and whether the communities targeted would be interested in adopting healthier eating habits, more so, by linking affordability to healthy foods. Clarifying what constitutes "healthy food" was deemed to be key if stokvels were to be sensitized to healthy eating. Our study noted that long-shelf-life foods can include plant-based protein sources such as lentils and dried beans, which are healthy options. Possible stakeholders to take up the challenge would be the grocery retailers and financial partners. However, when examining the micro-level, these concerns primarily revolve around food access and utilization by individual households. This perception is aligned with literature on food security (Food and Agriculture Organization (FAO), 2015; Burchi and De Muro, 2016; Raj et al., 2022; Sumsion et al., 2023).

To influence healthy food purchasing, our study perceives that if farmers and stokvels collaborated, this could easily shift eating habits. Moreso, it could make the prices more affordable by reducing transportation costs, quick delivery of perishable healthy foods, and allowing for negotiated discounts. Volpe et al. (2013), however, note the opposite, arguing high transportation expenses during the delivery process can directly impact the price of fruits and vegetables, leading to increased costs for consumers and potentially discouraging those with limited budgets from purchasing fresh produce while also affecting the availability and variety of such products in regions distant from agricultural centers. Research has shown that the further away the food, the less likely one is to purchase or consume it, i.e., the "Proximity Effect" (Hunter et al., 2019). This perspective sheds light on the challenges within the food distribution network, especially in terms of quality and affordability but does not dissuade from trying to collaborate for the greater good. Despite the availability of inexpensive, long-life, less healthy "combos" at discounted prices presents a challenge to healthy eating. Retailer discounts may be tailormade toward healthy foods to make healthy eating more affordable. We cannot ignore the retailer discounts' significant influence on the purchasing decisions of Stokvel members and the power to shift Stokvels' primary objective of saving and purchasing.

This study exhibits several notable strengths, contributing to its significance and providing novel insights into the role of stokvels in South Africa's urban, low-income settings, particularly concerning food systems. First and foremost, the engagement of stakeholders sets a robust foundation for the study's credibility. Successfully involving stakeholders that represented a diverse array of actors across various sectors, ranging from formal and informal food retail to academia and social enterprises. This inclusive approach ensured a well-rounded and nuanced understanding of stakeholder perceptions, enriching the study's depth and breadth. The recognition of stokvels as agents of financial inclusion and empowerment, particularly in disadvantaged communities, aligns with existing literature, consolidating the notion of these associations as vital instruments for reinforcing social conventions and promoting inclusivity within financial systems.

A crucial aspect addressed by the study is the informality of stokvels, presenting an opportunity for improvement through the establishment of formal agreements and governance structures. By identifying the risks associated with informality, such as financial disputes and fraud, the research encourages the implementation of governance processes that enhance transparency and compliance with rules and regulations. This forward-looking perspective contributes to the study's strength by providing actionable recommendations for the enhancement of stokvel operations. However, it is essential to recognize the study's limitations regarding stakeholder representation. The absence of key stakeholder groups in our research—namely informal food retail, food production and distribution, local government, retail insurance, retail household and building supply, government departments, and non-profits partnering with local government—significantly shapes the conclusions we can draw from our study. The lack of perspectives from informal food retailers, for instance, constrains our understanding of food access dynamics in low-income communities, where informal markets are often critical. This gap in data prevents a comprehensive view of how stokvels could interface with these markets to enhance healthy food access. Similarly, the exclusion of food producers and distributors limits insights into supply chain challenges, influencing our understanding of potential direct negotiations between stokvels and producers. The absence of local government input is particularly telling, as it restricts our grasp on the policy landscape affecting food systems, thereby impacting the potential integration of stokvels into broader food security initiatives. Additionally, overlooking sectors like retail insurance and household and building supply curtails our analysis of the economic and risk management aspects that are fundamental to the sustainability of food ventures. Equally, the non-participation of government departments and NPOs working with local governments leaves a void in understanding how national policies and grassroots initiatives might align or conflict with the operations and goals of stokvels.

Therefore, while our study sheds light on the role of stokvels in food accessibility, it does so with a narrowed lens. The missing stakeholder perspectives mean our conclusions might not fully encapsulate the intricacies of the entire food system, potentially leading to an over or underestimation of stokvels' impact. Future research should endeavor to include these diverse viewpoints for a more comprehensive understanding of the multifaceted food system and the nuanced role stokvels could play within it.

5 Conclusion

In conclusion, the study captured perceptions by stakeholders on stokvel structures, governance, purchasing power, partnerships and leveraging the power to influence health eating. Through collaboration and partnership, stakeholders may be able to tap into the existing networks and trust built within stokvels to disseminate important health information. Future research should include the unrepresented food system and other actors to explore strategies to enhance the role of ROSCAs in promoting healthier food choices and addressing affordability and accessibility barriers in low-income communities. In summation, stokvels provide an effective platform for collective action that can precipitate positive transformations in food systems, especially within low-income communities. They serve as both an economic mechanism, through pooling and distributing resources, and a social mechanism, through fortifying social capital, ultimately enhancing food security and sustainability.

Data availability statement

The datasets presented in this article are not readily available because the data are based on transcribed in-depth interviews and as such are contextually specific. While there are no specific restrictions, participants were not consented to have their data shared beyond this application. Requests to access the datasets should be directed to vicki.lambert@uct.ac.za.

Ethics statement

The studies involving humans were approved by University of Cape Town Human Research Ethics Committee. The studies were conducted in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study.

Author contributions

AL: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Project administration, Visualization, Writing – original draft, Writing – review & editing. EL: Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Resources, Supervision, Visualization, Writing – review & editing. FW: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Project administration, Supervision, Visualization, Writing – review & editing. OA: Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Resources, Supervision, Visualization, Writing – review & editing.

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Conflict of interest

The authors declare 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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Values-based modes of production and consumption: analyzing how food alternatives transform the current food regime

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The current food regime has experienced a multidimensional crisis, driving further unjust and unsustainable development. Various food alternatives address these challenges by promoting different modes of alternative production and consumption. However, they are not extensively theoretically addressed within the food regime literature. Thus, we suggest analyzing food regimes with further social science theories to explore food alternatives and their possible contributions to transforming the present food regime. Drawing on a combination of critical state theory, the social capital concept, and territorial approaches, we introduce an interdisciplinary conceptual framework called values-based modes of production and consumption. We assume that food alternatives are based on values other than economic ones, such as democracy, solidarity, or trust. The framework allows examining perspectives of transformation that focus on conflict or cooperation and how they can be interlinked. We aim to determine entry points for analyzing food alternatives within the current food regime because these enable an exchange between debates that are usually taking place alongside each other. By linking them, we aim to inspire further insightful interdisciplinary research.

KEYWORDS

food regime theory, alternative food networks, transformation, critical state theory, social capital, territoriality

1 Introduction

The multidimensional crisis of the current food regime has recently become apparent. The financial and economic crisis since 2007 has intensified the pressure on land and people. Transnational corporations have increasingly become financialized, and investment and pension funds consider land an asset to diversify their portfolios (Fairbairn, 2014; Plank and Plank, 2014). Large-scale agricultural enterprises grow flex crops (Borras et al., 2016) as cash crops, partly for agrofuel production (Borras, 2010; McMichael, 2010; Plank, 2017), employing unfair trade regimes that aggravate the energy and climate crisis (Franco and Borras, 2021), and foster land grabbing (Borras et al., 2011; McMichael, 2012; Hall et al., 2015) and green grabbing (Fairhead et al., 2012). With the coronavirus pandemic and the war in Ukraine, the

multidimensional crisis has intensified (Van Der Ploeg, 2020; Gras and Hernández, 2021), providing challenges and opportunities for food alternatives.

Social movements, such as the environmental or food sovereignty movement, are prominent examples of fostering food alternatives to transform the current food regime (Patel, 2009; Edelman, 2014; Alonso-Fradejas et al., 2015; Bernstein, 2016). By promoting alternative ways of production and consumption, such as community-supported agriculture or regional food chains (Clancy and Ruhf, 2010), the food sovereignty movement aims to change the dominant capitalist mode of production and consumption dependent on capital accumulation and economic growth (Schermer, 2015). However, most food alternatives, defined as alternatives in production, networks, and economic practices (Rosol, 2020), work locally. How they can be upscaled to have a more extensive influence on the food regime remains an open question.

Friedmann and McMichael (1989), who developed the food regime approach in the 1980s, more recently suggested "widen[ing] the conversation" (Friedmann, 2016) on food regime theory and enriching it with other theoretical approaches to examine social change (see also Friedmann, 2009). We follow this suggestion to examine the transformation potential of the current food regime through local food alternatives. A joint effort of society at large is needed to encounter crises and foster transforming the present food regime; hence, various theoretical perspectives and food alternatives and their context-specific characteristics and motivations must be included in the analysis (Penker et al., 2023). Thus, we also consider food alternatives that do not explicitly identify with the food sovereignty agenda or are not openly motivated to change the current food regime (Stevenson et al., 2007). Initiatives such as organic regions or traditional farming cooperatives are more commonly addressed in the alternative food network literature than in the food regime literature, where they are framed as value-based supply chains relying on values other than economic ones (Stotten et al., 2017; Stotten and Froning, 2023).

Therefore, this contribution presents an interdisciplinary conceptual framework to analyze how food alternatives transform corporate and state power in the food regime through a values-based approach. By linking critical state theory with the concept of social capital and territorial approaches, we examine actors and institutions, values, and their multiscalar interplay. We call this framework values-based modes of production and consumption and investigate it using analytical perspectives that focus on conflict or cooperation within the present food regime.

2 Food alternatives in the current food regime

Food regime theory is known for analyzing global changes within the agricultural food system from a long-term, political-economic perspective. Its strength lies in examining the stabilizing dimensions of a food regime by examining investment flows, trade relations, and interstate relations and their socioecological effects (Bernstein, 2016). Overall, transformation in food regime theory has so far been a question of how food regimes change in an ex-post analysis, that is, how we progress from the first (1870s–1930s) British-centered regime to the second (1950s–1970s) US-dominated regime to the third (from the 1980s to the present) corporate-driven food regime (McMichael, 2013). Friedmann (2009) questioned this last shift, arguing that a hegemonic international currency is missing. Other researchers have questioned the corporate character as the only primary driver of the current food regime and discussed a neoliberal food regime (Otero, 2012), highlighting the role of the state and biotechnology, or a post-neoliberal food regime (Tilzey, 2019), where competing states secure capital accumulation.

As Friedmann (2016) stated, "food regime analysis is most useful today as part of a wider set of analyses of transitions. Therefore, we draw on debates on the role of actors and institutions, values, and their multiscalar interplay within the current food regime to determine how they can contribute to the interdisciplinary analysis of its transformation. Transformation requires different leverage points (Abson et al., 2017) where intent (i.e., values) and design (i.e., institutions) embedded in materiality are the most significant levers for systemic change. We analyze niche activities and their interplay with higher spatial scales (Plank, 2022; Barlow et al., 2024).

2.1 Actors and institutions

Analyzing social movements to understand agency within the current food regime, focusing on resistance, has garnered substantial attention (Borras et al., 2008; Fairbairn, 2008; Holt Giménez, 2011). Notably, social movement scholars have researched strategies regarding how the food sovereignty movement is organized (Claeys and Duncan, 2019; Duncan et al., 2021), emphasizing the desire for democratic control of food systems (Patel, 2009; Desmarais et al., 2017). In addition, research on the role of the state in the food regime has been increasing in the last few years (Otero, 2012; Akram-Lodhi, 2015; Pritchard et al., 2016; Tilzey, 2017, 2018; Belesky and Lawrence, 2019; Jakobsen, 2019; Tilzey, 2019). While Otero (2012) referred to the neoliberal state, which, via "neoregulation," supports transnational corporations through the state's absence, Pritchard et al. (2016) highlighted the possibility of rights-based food agendas within a nation-state.

Tilzey (2019) argued for integrating a Poulantzian understanding of the state as a social relation in food regime research, highlighting the role of strategic selectivities inherent in the capitalist state (see Poulantzas, 2014). As Tilzey asserted, food regimes arise from what he called the "state-capital nexus" (2018, 2019). In this understanding, a food regime is no more than the combination and articulation in the international arena of national food systems, reflecting the dominant interests of the hegemonic states and their capitalist interests. The state represents a heterogeneous ensemble of institutions interwoven with the economy (i.e., shaping economic activities resulting from capitalist development). The state secures specific economic interests and activities through its legal and institutional structure (Jessop, 2002, 2007). The more opposed actors are to a hegemonic regime, the less likely they are to incorporate their interests into it (Tilzey and Potter, 2016). Actors and institutions incorporated into a regime can be analyzed through political projects. For instance, (Tilzey (2017)) differentiated these into hegemonic, sub-hegemonic, alter-hegemonic, and counter-hegemonic projects.

2.2 Values

According to McMichael (2009), the current food regime is defined by a set of rules institutionalizing corporate power through

the World Trade Organization as the leading institution, finding its expression in free trade agreements. As noted, others have questioned this leading value of corporatism (Otero, 2012; Tilzey, 2019). Friedmann (2006) called it "corporate-environmental" because ecological farming, fair trade, and social justice have become increasingly popular and have been inscribed into the food regime. With the failures of neoliberalism to provide food security, social and economic justice in trade relations, and environmental sustainability in the face of the climate crisis (Smith et al., 2010), food alternatives based on values such as solidarity, trust, justice, and environmental sustainability are essential for change (Campbell, 2009).

A social capital perspective can explore how such values in values-based supply chains (Stevenson and Pirog, 2008; Fleury et al., 2016; Stotten et al., 2017) are established, lived, and transmitted along the food chain, especially across spatial distance. Drawing on Polanyi (1978), strong social capital reflects the embeddedness of the economy in society (Carroll and Stanfield, 2003), and it has been argued that "the market economy remakes society, in the process destroying solidarity and destabilizing the substantive economy thereby ultimately threatening social disintegration" (Stanfield, 1986, pp. 11). The role of values must be empirically analyzed, regarding whether values foster food alternatives or are simply co-opted into the food regime and represent a form of localized capitalism (Tilzey, 2017; Stotten, 2024).

2.3 Multiscalar interplay

Within the food regime literature, transformation is often addressed from a top-down perspective, analyzing capital accumulation processes, dominant power constellations, and class relations (Friedmann and McMichael, 1989; Bernstein, 2016). Nevertheless, more recently, national and local scales have been examined owing to their transformation potential. Localizing "food from nowhere" to "food from somewhere" (Campbell, 2009; McMichael, 2009) has been identified as a crucial but not exclusive element of food sovereignty (Robbins, 2015), where production is localized and certified trade links markets over distance (Burnett and Murphy, 2014; Plank et al., 2023). These diverging quests have resulted in a tension that shapes the corporate food regime, "whereby a 'food from nowhere' regime is in constant dialectic with a 'food from somewhere' regime" (Smith et al., 2010, p. 147).

Food production and consumption are intrinsically linked to physical space and its materiality. A context-specific territorial lens (Dorn and Hafner, 2023, p. 30ff) helps explain processes of scaling and connecting the organizational-structural (institutional) and relational to physical space (Sack, 1986; Raffestin, 2012; Haesbaert, 2013), addressing the well-articulated critique by Potter and Tilzey (2005, p. 583) regarding the cognitive dissonance between the focus on geographical settings versus approaches detached from space. Bridging the physical geographical focus with actor networks and their inherent power relations, reframed as an "agricultural restructuring as a sociopolitical project" (Tilzey, 2005, pp. 584–585) is useful for an in-depth analysis of the multiscalarity and connection between the organizational-structural, relational, and physical spaces. Socioecological change may occur locally but is interlinked with strategies and power relations between actors and institutions on multiple scales.

3 Values-based modes of production and consumption as an interdisciplinary conceptual framework

This paper proposes an interdisciplinary conceptual framework to analyze food alternatives within the current food regime, building on insight from debates on actors and institutions, values, and their multiscalar interplay. This framework is rooted in critical state theory, the social capital concept, and territorial approaches. The role of actors and institutions and the interdependency between food alternatives and the state are highlighted, drawing on critical state theory (Jessop, 2002, 2007). How food alternatives are simultaneously embedded in the current food regime and how they aim to transform it by scaling their values-based approach to the national scale can thus be investigated. This approach enables the analysis of the political-institutional setting to support food alternatives from the perspective of broader socioeconomic development.

Furthermore, this approach allows for an examination of barriers that food alternatives encounter at the institutional level and the strategies to address them. The concept of social capital (Putnam, 2000) facilitates the examination of underlying values, such as trust, of the actors in the supply chains of food alternatives and how these values influence activities across spatial distances. By articulating critical state theory with territoriality (Dorn and Hafner, 2023), we link food alternatives and their values to how the food regime is articulated within the nation-state. Power relations between actors and institutions and materiality are examined on various spatial scales to explore how political-economic interests unfold in the respective institutional settings. Based on this interdisciplinary approach to values-based modes of production and consumption (Figure 1), we identify conflict- and cooperation-centered perspectives on transformation and how they link to a specific territory.

3.1 Perspectives on transformation

Various disciplines have distinct analytical added value. To understand the transformation dynamics within the current food regime, we combine theoretical perspectives and use them as different entry points for an analysis of conflict, cooperation, or both (Figure 2). Further, we focus with our analysis of the state and values of the food initiatives on leverage points which can have a great potential for transformation.

3.1.1 Conflict-focused perspective on transformation

One central entry point for analyzing transformation strategies and their barriers is the current conflicts in the food regime. From a critical state-theoretical perspective, various actors, such as parties, interest groups, nongovernmental organizations, and social movements, shape the food regime due to their interests and strategies. Drawing on the concept of strategic selectivities (Jessop, 2010), we can analyze how specific interests are inscribed into the state, whereas others are not. For example, the specific interests and strategies imprinted in today's food regime are dominated by those of transnational corporations (McMichael, 2009). For instance, this situation can be observed in policy-making (Torrado, 2016) when

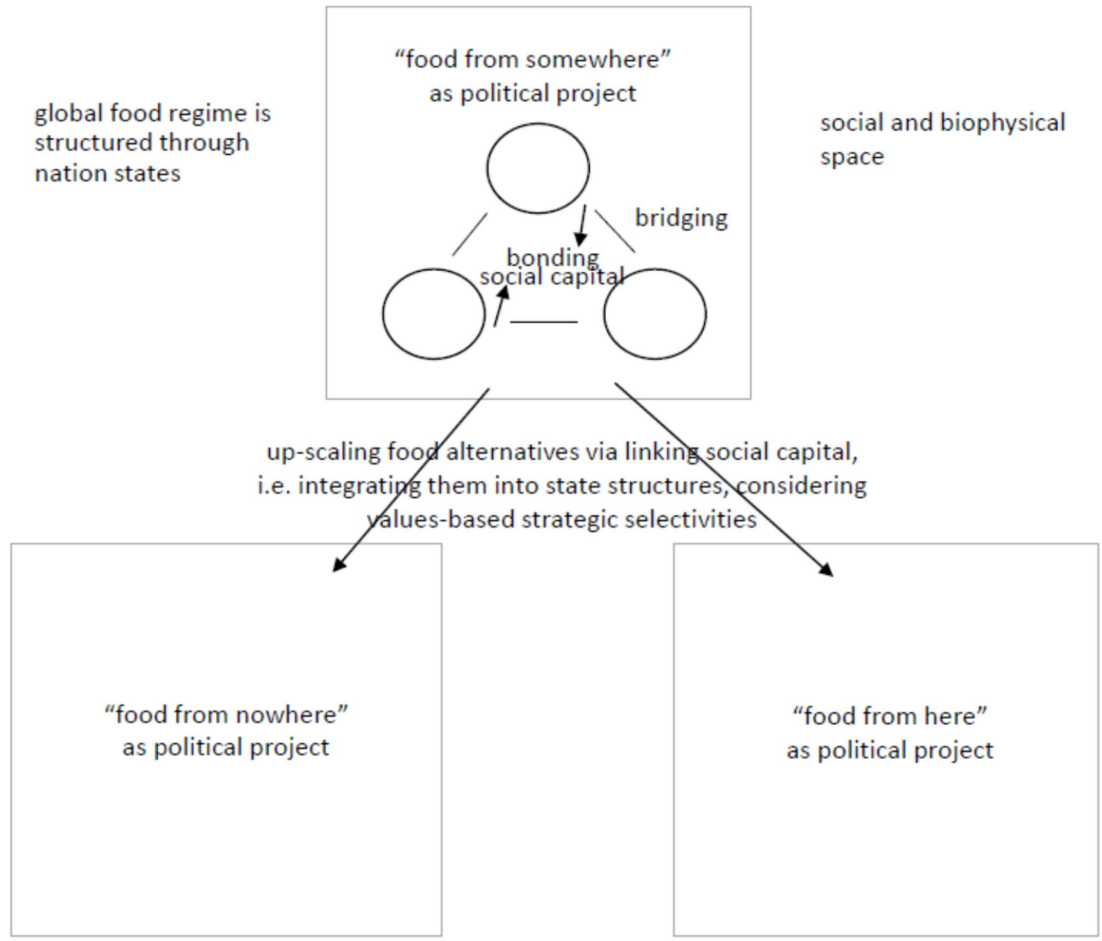

FIGURE 1
Interdisciplinary conceptual framework of values-based modes of production and consumption to examine food alternatives transforming the current food regime.

powerful actors push to retain direct payments or allow glyphosate within the European Union.

A further example is the transformation of the food regime in India and South Africa, where the right to food has been incorporated into state structures (Pritchard et al., 2016; Jakobsen, 2019). Political projects allow the joint action of diverse social forces by articulating their interests and strategies within the state. Certain projects operating in specific contexts might achieve hegemony (Staatsprojekt Europa, 2014; Brand et al., 2021; Voigt et al., 2024). Political projects differ in terms of values, interests and strategies of their actors (see Staatsprojekt Europa, 2014). Regarding food system transformation as understood by food regime theory, two major ideal-type political projects can be identified: "food from nowhere" as the dominant one and "food from somewhere" as fostered by food alternatives.

"Food from nowhere" (McMichael, 2009) is a hegemonic project that involves specific institutional structures concerning food production, processing, and consumption. Outcomes and constituent components of this project are highly unequal, for instance, private property-based ownership structures of land as well as the phenomena of land concentration and grabbing driven by the financialized capitalist system, the food industry, and major retail chains. "Food from somewhere" (McMichael, 2009), in contrast, focuses on food alternatives (i.e., how social movements become engaged in political action, how they aim to shape food policies or institutions, and how they aim to change access to land). Food alternatives, such as community-supported agriculture or regional food chains, can coexist with or challenge the dominant food regime (Plank et al., 2020) and are supported by the food sovereignty movement protesting, e.g., against implementing the Common Agricultural Policy at the national level (ÖBV-Via Campesina Austria, 2020). When investigating options for transformation, critical questions arise: How is "food from somewhere" supported or hindered by state structures? These are ideal-type projects on a high level of theoretical abstraction, the concrete articulation of which must be examined for each state. For Austria, e.g., Salzer (2015) demonstrated how small-scale farmers are embedded in the hegemony of the conservative political structures of their political economy. Thus, Schermer (2015) underlined that a sole focus on regional production, called "food from here," stabilizes the dominant food regime in an Austrian context and hinders the emergence of radical alternatives, such as community-supported agriculture. Depending on the respective examined state, these characteristics must be explored.

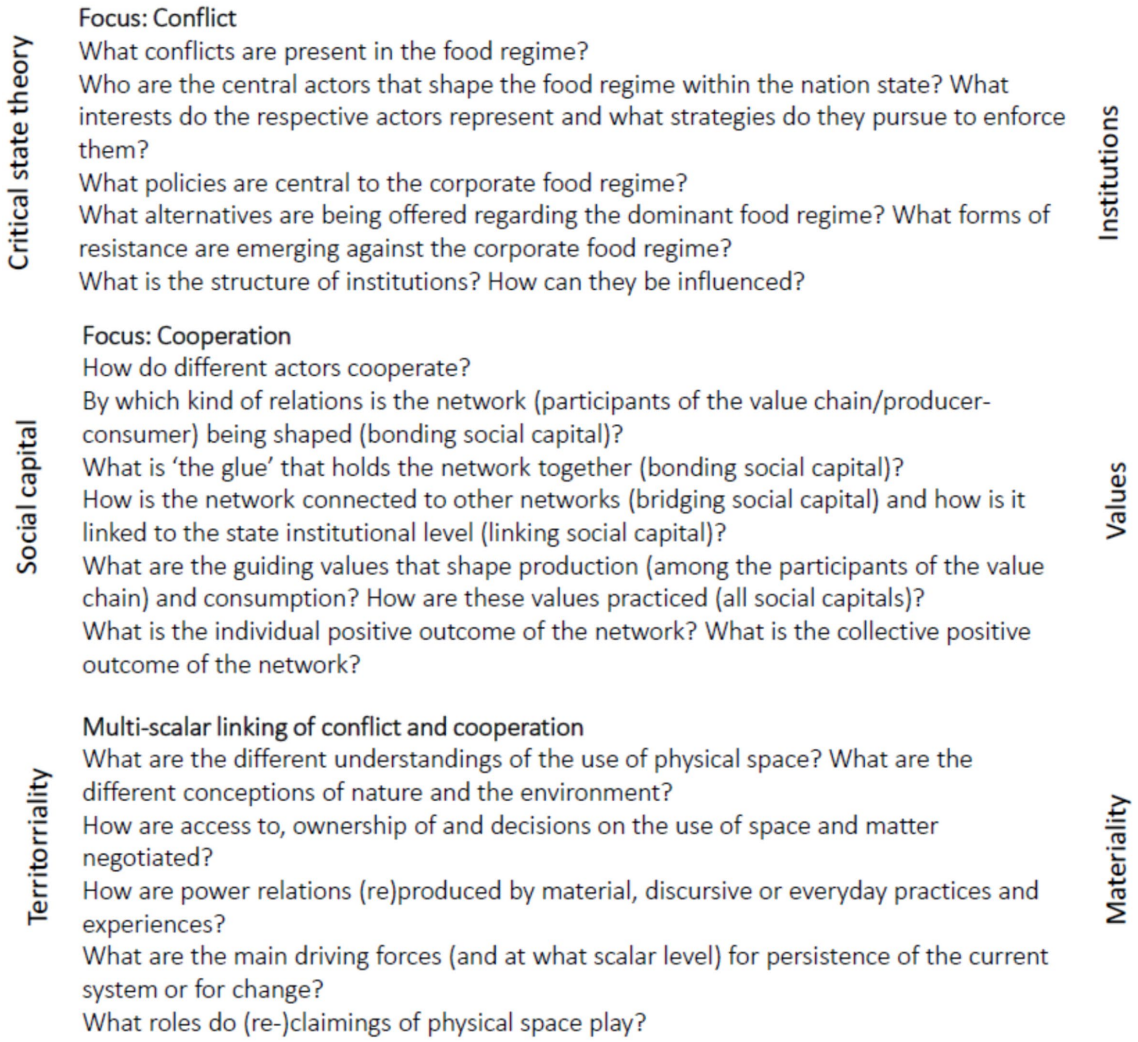

FIGURE 2
Guiding questions for analysis of conflict and cooperation in processes of transformation.

3.1.2 Cooperation-focused perspective on transformation

Another starting point for analyzing transformation is examining a certain expression of values (e.g., how to foster cooperation within and between food alternatives). Better than a critical state-theoretical perspective, the social capital approach explains structures leading to (or constraining) cooperation in such food alternatives. According to Putnam (1993), the accumulation of social capital within a region enhances economic cooperation (see also Woolcock, 2001; McShane et al., 2016). According to this theory, robust social networks in the form of local associations contribute to the effective functioning of democracy and stimulate economic growth. Putnam argued that engagement in voluntary associations generates social capital, fostering trust in societal interactions. This trust encourages individuals to cooperate with the confidence that others will reciprocate (Rothenstein, 2005). In contrast to Bourdieu (1980), who understood social capital as one component of symbolic capital together with cultural and economic capital, exploring its role in reproducing social hierarchies, Putnam focused more on the mechanisms that strengthen the integration of communities through values (for a detailed elaboration of the concept, see Siisiäinen, 2003).

Putnam (2000) introduced the distinction between bonding and bridging social capital (Figure 1), the latter relating to the concept of weak ties (Granovetter, 1973). Bonding social capital creates internal cohesion in a system, such as a community or value chain, and is characterized by shared values, such as trust, loyalty, solidarity, and mutual assistance. For instance, traditional farming cooperatives rely on solid bonding social capital, empowering them to shape the regional food production system based on shared values (Schermer, 2009). In contrast, bridging social capital does not refer to close interpersonal interaction within groups sharing narrowly aligned values or value systems, but links individuals or social groups across social difference, enabling inter-group learning processes (Woolcock, 1998). For instance, small-scale producers are organized in different lobby groups (e.g., the association 'Bio Austria' of organic farmers in Austria) strengthened by horizontal integration through bridging social capital and contributing to mutual learning processes.

Finally, linking social capital, as developed by Woolcock (2001) to consider vertical power relations in capital terms and

reflects the capability of individuals or social groups to link to the level of the state, enabling, e.g., the best use of the legal framework for their purposes. Combinations of bonding and bridging social capital are needed to maximize the positive political outcomes of cooperation (Woolcock and Narayan, 2000). If shaping access to the state institutional level through linking social capital (Woolcock, 2001), such combination facilitates economic activities to the benefit of regional development (Schermer, 2009). While acknowledging the merits of Putnam's social capital approach with regard to studies on food system transformation, we are aware of neoliberal tendencies inscribed in the social capital concept depending on how it is being used analytically and embedded theoretically, particularly when emphasizing the community as the sole source of social, economic and political support or individual responsibility, or when neglecting the exclusionary effects of (especially) bonding social capital and ensuing social stratification or uncritically interpreting the notion of linking capital (Ferraigina and Arrigoini, 2018).

Critics have scrutinized the Putnamian perspective for assuming that elevated social capital invariably yields positive outcomes (e.g., King et al., 2019; Baycan and Öner, 2023). They emphasized that high social capital could also result in adverse economic consequences or, regarding spatial configurations, lead to path dependencies and lock-ins (see also McShane et al., 2016). However, other scholars (e.g., Svendsen and Svendsen, 2000; Schermer, 2009) have underscored that the availability of bonding, bridging, and linking social capital is vital for the long-term economic performance of collective farmers' marketing initiatives. The role of democracy, trust, and equal chances for a profit demonstrates the importance of social capital for the performance of dairy cooperatives (Svendsen and Svendsen, 2000). Urban and rural communities might differ regarding the amount and type of social capital and how they interlink. For instance, rural residents may display higher levels of bonding social capital than urban dwellers, whereas bridging social capital might be better developed in urban regions (Sørensen, 2016). We thus suggest to investigate both amount and composition of social capital in specific local and regional spatialities of the food regime in a nation-state context to better understand potentials and constraints of food alternatives.

3.1.3 Linking conflict and cooperation-focused perspectives on transformation

A third, territorial approach links conflictive and cooperative transformation perspectives and examines them on scalar levels, including the materiality of food production. In this way, the interconnectedness of the biophysical materiality of food production with social relationships and processes of negotiation, power structures, and strategies across scales can be addressed (Dorn and Hafner, 2023). From an analytical standpoint, territoriality allows for the examination of how individuals and communities relate to, are part of, and interact with the physical space and place (Dorn, 2021). This approach calls for reassessing and abandoning container thinking for a more integrative understanding of inter- and intrasectionality between the physical and social space, defined by the actors' interpretation of how control is exercised. Consequently, territory is not a fixed entity but must be continuously (re-)produced by material, discursive, and everyday practices (i.e., territorialization processes; Dietz and Engels, 2018).

Political decisions set the frame for forms of agricultural activity. Actions such as supporting farm size upscaling, facilitating monocultures, and applying genetically manipulated crops favor large-scale investors and agribusinesses and hold additional relevance for neighboring small-scale alternative production sites. For example, once the large-scale application of glyphosate is allowed and exercised, neighboring organic or agroecological production fields experience the effects of glyphosate carried by wind, contaminating organically produced crops (Lapegna, 2016). This materialization of state regulations results in a discrepancy between the alternative ideals and values of food production and their possibility in practice, emphasizing the necessity to explore how the interrelationships between humans and the environment are understood. This example could be extended, as "food from nowhere" (the large-scale application of glyphosate use in industrialized agriculture being one specific practice which is characteristic of this political project) and "food from somewhere" (as, e.g., connected with agroecological production) represent two fundamentally distinct methods of producing space. In other words, they constitute different territorialities that may overlap and often enhance the contestation around territories (see Porto-Gonçalves and Leff, 2015). For example, social movements that strive for food sovereignty are always about autonomy and access to physical land. In doing so, they do not only challenge the free market hegemony but also the territorial sovereignty of nation-states (Copeland, 2019; Storey, 2020).

Drawing on the perspectives of conflict and cooperation, we have covered a broader mix of transformation opportunities, representing possible entry points for empirical research. We suggest questions (Figure 2) to guide the interdisciplinary analysis.

3.2 Operationalizing values-based modes of production and consumption

In concluding, we want to demonstrate, how the analysis of the three analytical perspectives outlined above can be combined within three steps. First, we propose examining how the food regime is articulated in the nation-state and how it is composed by political projects to obtain an overview of the challenges regarding the transformation of the food regime. Interests, strategies, and power relations within the food regime are made explicit by identifying critical actors, institutions, and policies and defining the food regime within the state. Various forms of state-capital relations (e.g., national developmentalist or competition-orientated states) must be considered (Tilzey, 2018).

Second, we suggest to focus on local and regional food alternatives and to elucidate their values. We investigate how values are transmitted across communities, horizontal distances, and vertical scales using bonding, bridging, and linking social capital and are shaping relationships between producers, processors, and consumers. In this way, we examine how values motivate agency within food alternatives, how they influence social practices on various scales, how values are transmitted among the actors in the food chain, and how they can contribute to institutionalizing food alternatives nationally. Some food alternatives openly and explicitly aim to transform the corporate food regime, whereas others do not have a conscious political understanding of their activities.

Third, we suggest to combine the analysis of territoriality with the bonding, bridging, and linking of actors within and across alternative food initiatives. Actors share interests, values, and understanding of ideal human-environmental relationships, which are visible in food production, distribution, and consumption. Every day, hands-on multisensory and visceral experiences (Hafner, 2022) related to "food from somewhere" strengthen the link between the tangible and intangible characteristics of food production, distribution, and consumption. The performative element of experiencing food requires asking how diverse social groups perceive their physical environment to operationalize territoriality. A research agenda on territoriality includes actors' access to and use of space and the (re-)production and materialization of power relations. This approach is connected to values and how they are selected by state structures (i.e., institutions, discourses, and technologies).

4 Conclusion

We focused on food alternatives against the background of multiple crises in the current food regime. By widening the theoretical perspective of food regime theory through critical state theory, the social capital concept, and territorial approaches, we introduced an interdisciplinary conceptual framework to examine food alternatives as values-based models of production and consumption. Critical state theory offers an analytical perspective on societal conflicts, whereas approaches to social capital focus on the ability to cooperate. Territoriality links these two perspectives and anchors actors' social interactions and intra-actions in the biophysical space, arguing that each social interaction is also materialized, produced, and reproduced spatially. The framework examines necessary prerequisites for upscaling food alternatives and provides a perspective on the barriers to this process.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Author contributions

CP: Writing – review & editing, Writing – original draft, Conceptualization. RS: Writing – review & editing, Conceptualization. RH: Writing – review & editing, Conceptualization.

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Conflict of interest

The authors declare 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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Food sovereignty at the organizational level: a framework for characterizing the diversity of economic actors

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Introduction: The food sovereignty concept intends to transform agri-food systems toward justice and sustainability. While the food sovereignty movement advocates economic alternatives, the actors engaged in economic activities and striving for food sovereignty as actors of change remain overlooked. Food sovereignty scholarship and the movement gives several exemplars such as peasants, local farms and Community Supported Agriculture (CSA), as well as activities such as local food processing. However, recognition of these exemplars as 'economic actors' is rarely explicit, nor are their 'economic activities' recognized. Simultaneously, large corporations are criticized for their global market dominance, which has led to generalized negative perceptions of economic actors. This lack of differentiation, along with the absence of a clear conceptualization of Economic Actors striving for Food Sovereignty (EAFS), contributes to blind spots. Furthermore, aspects of how EAFS are structured and organized are rarely considered at the organizational level. This has led to limitations, such as in addressing organizational challenges and developing solutions to strengthen and scale EAFS.

Methods: This study aims to conceptualize the diversity of EAFS at the organizational level by identifying patterns in food sovereignty literature. Using thematic analysis within an integrative literature review, we examined 108 publications, including some gray literature.

Results: We propose a framework with three main themes: (i) *conditions that shape EAFS*, including diverse motives, which affect their (ii) *economic-related characteristics* along the agri-food supply chain, and their (iii) *organizational-related characteristics*, such as forms of property and decision-making. This framework includes 12 sub-themes each encompassing a wide spectrum of differentiation and options for distinction.

Discussion: It reveals that EAFS combines alternative and conventional elements that differ in their configurations. The economic actor perspective helps to identify a broad set of EAFS and perceive their potentiality to foster new alliances and obtain mutual support. Moreover, this study underscores that food sovereignty is also a multifaceted organizational phenomenon, emphasizing the need for organizational insights to stabilize and expand EAFS. The findings can be used by researchers, practitioners, food movements, and related alternative food concepts such as food democracy, to better understand and develop such concepts and its involved actors.

KEYWORDS

food sovereignty, food democracy, organizational level, alternative organizations, diverse food economies, food system transformation, literature review, framework

1 Introduction

In the face of multiple interlinked crises, such as climate change, environmental destruction, social inequalities, and threats to democracy around the world (e.g., Pimbert, 2018; Battilana et al., 2022; Mirzabaev et al., 2023), both socially and ecologically sustainable agri-food systems that are less extractive toward nature and people are being called for (e.g., Hinrichs, 2000; Mars, 2015; Campbell et al., 2017). Against this background, alternative food concepts such as food sovereignty can be seen as a way to transform agri-food systems toward being more just and sustainable (e.g., Anderson et al., 2019; Siegner et al., 2020). A widely cited definition emerged through the Declaration of Nyéléni, developed in 2007 by the global food sovereignty movement at the Nyéléni Forum in Mali: Food sovereignty is "the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems" (Nyéléni, 2007). While the food sovereignty movement itself is striving for "the establishment of another economic model" (Nyéléni International Steering Committee, 2008, p. 43), and building and practicing economic alternatives, the actors which are engaged in economic activities and striving for food sovereignty, as actors of change, are overlooked in the food sovereignty discourse. This is somewhat surprising as sustainable transitions require an understanding of who the actors involved in driving such changes are (e.g., Fischer and Newig, 2016; Avelino and Wittmayer, 2016).

The discourse on food sovereignty is shaped by the contributions of the food sovereignty movement alongside academic scholarship particularly within disciplines such as geography, sociology, rural studies, political economy, and critical agrarian studies (e.g., Binimelis et al., 2014; Anderson, 2018; Dekeyser et al., 2018; Stapleton, 2019a; Pimbert, 2018; Abdoellah et al., 2020; Resler and Hagolani-Albov, 2021). In this context, food sovereignty was conceptualized into various research frameworks, sometimes based on indicators, to assess sustainability of agri-food systems. Examples includes studies from the Global North and Global South with different analytical contexts such as local-regional (e.g., Badal et al., 2011; Binimelis et al., 2014; Vallejo-Rojas et al., 2016; Garcia-Sempere et al., 2019; Daye, 2020) and national (e.g., Reardon et al., 2010; Levkoe and Blay-Palmer, 2018) as well as global (e.g., Oteros-Rozas et al., 2019; Ruiz-Almeida and Rivera-Ferre, 2019). Despite the broad scope of this food sovereignty research, relatively few studies focus on specific food sovereignty actors. For instance, Calvario et al. (2020) analyzed a Basque farmer's union within the international food sovereignty movement, while Bowness and Wittman (2023) examined a Brazilian non-governmental organization (NGO) involved in food sovereignty mobilization. Other studies have investigated individual actors (Larder et al., 2014; Figueroa, 2015) such as farmers' perspectives on local food systems in Canada (Beingessner and Fletcher, 2020) or a local food network in Austria (Lutz and Schachinger, 2013). The varied uses of the term 'actor' highlight ambiguities in the food sovereignty discourse, a challenge similarly noted in transition studies (Avelino and Wittmayer, 2016). Thus, the term 'actors' can refer to individual actors (persons as 'independent' players or members of an organization) and individual organizational actors (e.g., organizations such as firms, groups, networks) which are able to act (Avelino and Wittmayer, 2016). Following this understanding, organizations can be designed by individuals to achieve purposeful collective actions unattainable by any individual (King et al., 2010). These ambiguities concerning actors become evident with regard to the historical origins of food sovereignty. The concept originated from a global grassroots movement driven by small-scale and local peasants and farmers, rural workers, and other marginalized actors in agri-food systems (e.g., Desmarais and Wittman, 2014; Desmarais, 2015; Borras, 2016; Powell and Wittman, 2018). Several examples are mentioned in the food sovereignty literature by scientists and actors from the food sovereignty movement as positive for food sovereignty (Dekeyser et al., 2018), as food sovereignty-conducive (Thiemann and Roman-Alcalá, 2019), or as striving for food sovereignty (Carney, 2012; Ajates, 2020; Mestmacher and Braun, 2021). The documentation of the Nyéléni Forum in Mali (full report), published by the Nyéléni International Steering Committee (2008), presents exemplars such as peasants, local farms, Community Supported Agriculture (CSA) initiatives, and activities such as local food processing. These examples are also mentioned by Borras et al. (2015), Stapleton (2019b), Thiemann and Roman-Alcalá (2019), and Van Der Ploeg (2020).

However, these actors and their diverse economic activities are rarely named and considered explicitly as 'economic actors' or 'economic activities', creating blind spots in the discourse. This phenomenon of not naming economic actors (and thus making them invisible) aligns with related research in solidarity and social economies (SSE), where organizational research has shown that actors and "organizations were engaged in economic activity, very few thought of themselves in these terms" (Safri, 2015, p. 931). At the same time, the food sovereignty discourse critiques dominant economic actors such as large corporations that operate in agri-food systems (e.g., Portman, 2018; Pahnke, 2021). This often leads to and supports generalizations in the discourse that portray economic actors negatively (Ayres and Bosia, 2011), criticizing their transformative potential in providing market-based solutions (Fairbairn, 2012), or frame food sovereignty in general as anti-business (Desa and Jia, 2020). In contrast to these negative framings or the lack of consideration of economic actors within the food sovereignty discourse, research about diverse economies has highlighted the existence of a diversity of economic actors engaged in the implementation of non-harmful economic processes (e.g., Gibson-Graham, 2006[1]; Blue et al., 2021).

The lack of differentiation, along with the absence of a conceptualization of Economic Actors striving for Food Sovereignty (EAFS), reveals significant blind spots in the food sovereignty discourse. Current research on food sovereignty primarily focuses on

1 Gibson-Graham is the pen name shared by the feminist economic geographers Katherine Gibson and Julie Graham.

agri-food-related production activities (Vallejo-Rojas et al., 2022), offering limited insight into EAFS at the organizational level. For example, there is little understanding of how EAFS are structured and organized, which restricts more nuance in critical examinations such as addressing organizational challenges—and thus the development of solutions to strengthen and scale EAFS. By incorporating organizational perspectives, we draw attention in this study to organizational structures and activities (King et al., 2010) of EAFS thereby enabling a redressing of the (organizational) challenges faced by EAFS. Studies at the organizational level in post-growth economies have already shown that alternative economic organizations are also susceptible to market pressures that can perpetuate inequalities (Banerjee et al., 2021). In addition, these organizational actors are not necessarily without their power hierarchies and their labor relations are not necessarily better (e.g., Lutz and Schachinger, 2013; Parker, 2017; Böhm et al., 2020). Similarly, Rosol (2020) calls for a more critical examination of 'alternativity' and of the alternative and non-alternative described practices within agri-food systems. This is in line with the call of organizational research to investigate the organizational diversity of actors in agri-food systems; yet analysis of such at an organizational level is still underrepresented but equally necessary for agri-food sustainability transitions (e.g., Watson, 2019; Böhm et al., 2020; Michel, 2020; Moser et al., 2021).

Against these backgrounds, this study investigates the food sovereignty literature (i.e., scientific peer-reviewed publications supplemented by some identified gray literature) to identify patterns that can help conceptualize the diversity of Economic Actors striving for Food Sovereignty (EAFS) at the organizational level. The wording *striving for food sovereignty* is used here, drawing on its usage by scholars (e.g., Carney, 2012; Ajates, 2020; Mestmacher and Braun, 2021), as well as in a similar manner as *striving for sustainability* (e.g., Schaltegger et al., 2003; Böhm et al., 2020). We introduce the term EAFS here based on related discourses and as an umbrella term to capture their diversity. This term refers to individual organizations and their structures and indirectly includes the individuals involved.

We aim to take one of the first steps toward a deeper understanding of EAFS by identifying recurring patterns in 108 food sovereignty publications from both the Global South and Global North. This is achieved through an integrative literature review and thematic analysis. Based on these patterns and themes, we propose an EAFS framework to guide future research. The following research questions guided our literature review:

1 Which patterns regarding EAFS can be identified in the food sovereignty literature?
2 How can the diversity of EAFS be conceptualized?

Current organizational knowledge on EAFS in the food sovereignty literature is underdeveloped, so our review cannot conclude how these organizations actually operate. However, this study provides the first attempts to structure those patterns that have been identified in relevant publications in a comprehensive way and that merit further investigation. A second limitation of this study relates to organizational theory. One deficit of the food sovereignty literature—the body of research that we analyze—is the insufficient theorization of EAFS as theoretical approaches from organizational studies are rarely applied (see Chapter 3.1). Our study aims to encourage and facilitate both theorization and in-depth empirical research on the organizational level by identifying relevant themes (i.e., related to patterns in the food sovereignty literature) that are relevant for EAFS demanding further theoretical analysis.

To answer the research questions, the article is structured as follows: Chapter 2 introduces the conceptual and theoretical background in more detail. Chapter 3 follows with research methodology for the integrative literature review, including our thematic analysis approach. Chapter 4 provides a detailed literature analysis and presents our EAFS framework based upon three main themes and 12 sub-themes regarding corresponding EAFS characteristics. After the discussion (Chapter 5), we conclude by discussing limitations further research paths, as well as outlining the potential of the presented perspectives and framework for researchers, practitioners, food movement associations, and related alternative food concepts.

2 Conceptual and theoretical background

This chapter explains food sovereignty both as a movement and as a concept and argues for a deeper engagement with economic actors at the organizational level in debates on a food sovereignty-informed agri-food system transformation.

2.1 Food sovereignty as a movement and concept

To better understand the need for a better consideration of the organizational level of economic actors in the discourse on food sovereignty, it is essential to contextualize food sovereignty with its historical origins. Food sovereignty emerged from social struggles and peasant-based fights connected with the global agricultural and food crisis of the last decades, particularly the rural movements of the Global South (e.g., McMichael, 2014; Figueroa, 2015). The term 'food sovereignty' apparently first appeared in Mexico. The international peasant movement association *La* Via *Campesina* (LVC)[2] then launched the concept at the Rome Civil Society Organization Forum in 1996 (Edelman, 2014; see Chapter 1). The food sovereignty concept offers a "different way of thinking about how the world food system could be organized" (Akram-Lodhi, 2013, p. 4), challenging existing structures of corporate power and control in the global agri-food system, and aims to shift power and resources to a new system of production and consumption (Wittman, 2015).

As mentioned in the introduction, food sovereignty is widely cited in the literature and conceptualized into research frameworks in studies both in the Global South and the Global North. In this context,

2 According to its own statement, LVC comprises today approximately 182 national and local organizations in 81 countries. The movement organization represents altogether approximately 200 million peasants, rural and migrant workers, Indigenous people, small- and medium-sized producers, pastoralists, fishers, rural women, and peasant youth (La Via Campesina, 2022).

the definition developed by the global food sovereignty movement in the Nyéléni Declaration is used by several scholars (e.g., Schiavoni et al., 2018; Resler and Hagolani-Albov, 2021; Santafe-Troncoso and Loring, 2021). The Declaration presents six often-cited pillars of food sovereignty: (I) focus on food for people, (II) value food providers, (III) localize food systems, (IV) put control locally, (V) build knowledge and skills, and (VI) works with nature (Nyéléni International Steering Committee, 2008). However, the term 'food sovereignty' is now increasingly used as a marketing instrument by corporations, appearing on food packages sold in conventional supermarkets, which is criticized as greenwashing and co-optation by scholars and the movement (e.g., Fairbairn, 2012; Levkoe and Blay-Palmer, 2018).[3]

2.2 Incorporating the organizational level into food sovereignty research

EAFS may not always be negatively described in the food sovereignty discourse. In critical organization studies, they are sometimes portrayed as alternative organizations and fighters against neoliberal structures and oppressive work management (Vásquez and Del Fa, 2019; see also introduction), while also being embedded in current agri-food systems through relations of dependency. Thus, EAFS are struggling "to perform in accordance with the principles and aims of food sovereignty" (Lutz and Schachinger, 2013, p. 4,791) and "to organize themselves in ways that are sustainable […], and which avoid assimilation into the dominant global food system" (Lutz and Schachinger, 2013, p. 4,780). Given the lack of a nuanced understanding of EAFS at the organizational level, it is helpful to adopt King et al.'s (2010) suggestion that organizational perspectives should include and focus on the structures and activities of organizations. Accordingly, Ménard (2013) describes organizations as complex arrangements consisting of formal structures (e.g., legal forms), the allocation of property and decision-making rights (e.g., by contracts), and forms of governance (regulating how decisions are being taken) (see also Rosol and Barbosa, 2021 as well as Poças Ribeiro et al., 2021 which specifically address the role of founders, leaders, and managers in alternative food networks (AFNs)). However, there is little consideration of what we name EAFS as a diverse organizational phenomenon (see Ménard, 2017 for an overview of the diversity of organizational arrangements in the agri-food sector). In this sense, we aim to build initial bridges between food sovereignty as a movement and as a concept at the organizational level by focusing on EAFS themselves through the inclusion of organizational perspectives. Such perspectives have the potential to "face or overcome different organizational challenges" (Miralles et al., 2017, p. 834) of these actors, which strategically limit struggles for food sovereignty since individual and organizational actors are always embedded in overarching socio-ecological systems (Muñoz and Cohen, 2017).

3 A current example is the label "80% better for food sovereignty" printed on milk packages in Austria by HOFER, which is the operating name of the supermarket retail group ALDI, that reduces the concept to a single number (Fehlinger and Rail, 2018).

3 Research methods

This chapter explains the method selection, data selection process for the integrative literature review, and thematic analysis method used for data analysis and framework building.

3.1 Method selection

We conducted an integrative literature review of food sovereignty studies to circumscribe, differentiate, and better understand EAFS diversity, being "a form of research that reviews, critiques, and synthesizes representative literature on a topic […] such that new frameworks and perspectives on the topic are generated" (Torraco, 2005, p. 356). The goal of it is to summarize what is currently known by identifying patterns, themes, and research gaps, thus helping to guide further research (Snyder, 2019). Corresponding to the character of our field of research, we are following an interdisciplinary research approach for a deeper engagement of the organizational level in food sovereignty debates. We are, therefore, articulating different research areas and moving across topics and disciplines of food sovereignty research such as geography, sociology, rural studies, political economy, and critical agrarian studies (see Chapter 1). We do so "in order to increase the chances of cross-fertilization of ideas and theories and unexpected discoveries" (Alvesson and Gabriel, 2013, p. 254). We chose the thematic analysis method by Braun and Clarke (2006) because this method is a widely used qualitative analytic method and is usually adopted when existing theory or research literature on a phenomenon, such as EAFS, is limited. The method provides a detailed analysis of specific aspects of the literature sample (see Chapter 3.2) being guided by our specific research questions (see Chapter 1), rather than a comprehensive description of the entire data sample as, for example, a systematic literature review would have done (Braun and Clarke, 2006; for an overview of review methods see Snyder, 2019). In contrast to methodologies such as grounded theory, the used thematic analysis method is not wedded to any pre-existing theoretical framework, and therefore, the method can be used within different theoretical frameworks (for differences to other methods see Braun and Clarke, 2021). Our approach, therefore, is akin to and takes certain inspiration from grounded theory by acknowledging theorizations that inform existing studies, to generate an original conceptual framework. The thematic analysis approach has the advantage of being able to stimulate theoretical progress in the highly heterogenous field of food sovereignty studies by building on important insights gained through sometimes meticulous empirical work, often being informed (often implicitly, or without sufficiently elaboration) by the use of a diverse and broad range of theories.[4] It is

4 Although it was not the focus of the thematic analysis, the broad range of theories from our literature data sample (see Chapter 3.2) includes, for example, ecology and political ecology (Blesh and Wittman, 2015; Calvário, 2017), Marxist perspectives (Pye, 2021), economic theory (Madsen, 2021), organization theory to study international network organizations, not EAFS (Duncan and Pascucci, 2017), radical democracy (Pahnke, 2021), transition (Lutz and Schachinger, 2013), transformation (McCune and Sanchez, 2019), social innovation (Alberio and Moralli, 2021), ecological feminism (Portman, 2018), and postcolonial feminist theory (Deepak, 2014).

difficult to integrate these theories in a way that allows for a better understanding of the potential and limitations of EAFS in agri-food system transformations. Further limitations related to the selection and analysis process are discussed in Chapter 5.5.

3.2 Data selection process for the integrative literature review

For all searches, we used "food sovereign*" to select relevant scientific peer-reviewed publications, which include both the adjective and the noun "food sovereignty." Keywords guiding searches within this corpus can be divided into three clusters (see Table 1):

(1) Framework perspective: Food sovereignty is conceptualized in terms of various frameworks to assess sustainability of agri-food systems including pillars, categories, and indicators in (empirical) studies to facilitate analysis. Examples of this include the Global North and Global South with different analytical contexts, such as local-regional, national, and global, and involving different scientific disciplines (see Chapters 1 and 3.1). Frameworks often indirectly mentioned a wide range of economic actors, modes of production, and forms of organization, from which keywords were drawn for (2).
(2) Examples of EAFS: This cluster of keywords includes initiatives along the agri-food supply chain, for example, food processors and forms such as CSA (see examples in Chapter 1).
(3) Business and management: Within the organization, management, and business literature, relevant publications were rarely found. For this reason, we additionally crosschecked the noun "food sovereignty" in the Web of Science database categories "Business" and "Management."

Final searches in the online Web of Science database were performed on 10 August 2021, with the three search streams of the clusters previously explained. This process identified a total of 299 publications. In the final sample, 108 publications published between 2010 and 2021 were included in the analysis after the selection process (Figure 1).[5] The first step required the removal of duplicates, which left 279 peer-reviewed publications belonging to several research disciplines (n = 279 documents, 10 August 2021, updated review). Titles, abstracts, and full text were scrutinized with an emphasis on organizational information guided by our research questions (see Chapter 1). After having read the full text of all publications, 190 were excluded because they did not match the following criteria: Publications were excluded if they used the food sovereignty term and concept (1) without context (e.g., definition, framework, concrete food sovereignty principles, e.g., references to the Nyéléni Declaration); (2) only as a keyword without being integrated in the text; (3) only as part of the reference list without being integrated in the text. Indigenous[6]

5 For a complete list of the 108 publications included, please see Supplementary material.

6 The United Nations broadly defines Indigenous peoples as communities with longstanding connections to specific lands who have faced displacement, industrial encroachment, and settlement by others. This definition includes Native Americans, First Nations, Aboriginal peoples of Australia, and other communities with ancestral ties to pre-colonial societies. In this article, *Indigenous* and *Black* are capitalized to emphasize their significance as socially

TABLE 1 Search clusters and keyword combinations that generated the publications included in the integrative literature review.

Search stream	Search terms searched for in titles, abstracts, and keywords (with number)	Total number
Cluster 1	"food sovereign*" AND: "framework*" (174); "indicator*" (38); "empiric*" (36)	248
Cluster 2	"food sovereign*" AND: "organizational" (17); "organisational" (1); "initiative*" (8); organi*" (1); "CSA*" (3); "community supported agriculture*" (7); "processed" (14); "processing" (11); "processor*" (4); "supportive" (2) "conducive" (3)	73
Cluster 3	"food sovereign*" in the WoS Categories Business (1) and Management (1)	2
Sample after removing duplicated publications		279

Date of Search: First search 12 March 2021 and second search (as an update) 10 August 2021.

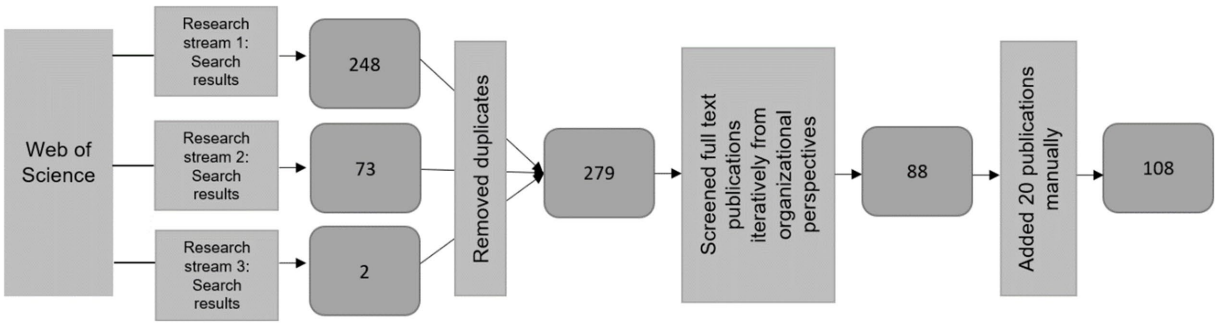

FIGURE 1
Selection process of the publications for review.

food sovereignty perspectives were included when publications made explicit links to the food sovereignty concept. During the full-text analysis, an additional 16 publications were identified through reviewing the references listed in the scholarly publications. After having derived the final publication list, we manually added four publications that were already known from previous research and data collection prior to this study. Among these 20 additional publications, some are gray literature, such as project reports or documents published by the Food and Agriculture Organization (FAO), which are not indexed in the Web of Science database.[7]

3.3 Thematic analysis method: data analysis and framework building

We followed Braun and Clarke's (2013) and Maguire and Delahunt's (2017) recommendations and applied the thematic analysis method for identifying, analyzing, and reporting patterns in the form of themes in the data, which were identified as being important to answer our research questions in Chapter 1 and the conceptual-theoretical background regarding the organizational level explained in Chapter 2. This qualitative method combines flexibility and rigor, which is particularly useful for investigating such an under-researched area. Rigor is achieved by a structured step-by-step approach (see the six steps below, summarized in Table 2). Flexibility is achieved by extending the analysis beyond explicit meanings to include the interpretation of latent meanings. For the in-depth review, we reduced the material in several loops and identified patterns (themes and sub-themes) that can help to characterize EAFS. We only considered the 108 publications of the literature sample described above. Other food sovereignty publications were excluded from the analysis to keep the literature selection transparent. The process of the thematic analysis is described by the use of six interrelated steps (see Table 2). Themes and sub-themes (i.e., themes within themes) emerged from the data along these steps.

To begin with, we familiarized ourselves with the data by reading the publications, taking notes on possible themes and sub-themes using a review matrix created with Microsoft Excel (step 1).

The 108 publications were sorted by publication year for investigating the historical evolution of the research topic. When reading and screening the full publications, relevant sections were extracted, transferred to the matrix, and categorized by initial codes (step 2).

For the next step, Excel and MAXQDA Version 2020 were used to assist with data management and coding. The results of the coding process were deliberated and agreed upon by both authors. Coding proceeded on two levels: Semantic coding referred to what is explicitly stated in a text, while latent coding was used for capturing implied meanings such as (non-explicit) intentions or assumptions underlying explicit meanings. We developed analytical questions starting from the research questions (see Supplementary material) and searched for broader themes in the review matrix by identifying respective quotes and examples (step 3).

We reviewed, modified, and developed these quotes and examples into preliminary themes and sub-themes according to different levels of abstraction guided by verification questions suggested for the thematic analysis method (for example, see Braun and Clarke, 2013; Maguire and Delahunt, 2017) (step 4).

In the next step, we named the (main) themes and sub-themes. Furthermore, we analyzed in this step how themes and sub-themes interrelated with each other (i.e., interaction and relation between themes and sub-themes) and sorted the sub-themes into the (main) themes. We constructed as a theme (1) *conditions that shape EAFS* that have three sub-themes (see Chapter 4.1 and Table 3). It reflects generic aspects that affect the other two themes. These are *economic-related characteristics* of EAFS (theme 2, see Chapter 4.2 and Table 4) and *organizational-related characteristics* (theme 3, see Chapter 4.3 and Table 5). Theme 2 has three, whereas theme 3 includes six sub-themes. These themes and sub-themes are based on the predominantly descriptive method that we used, condense the aggregated content of the literature, which means that the themes describe patterns in the data that are relevant to the research questions in a synthetic fashion. Following the thematic analysis method, we thus did not address the question of which theoretical perspectives authors had used, not least because of the broad range of relevant EAFS aspects relate in many ways to heterogeneous theories from different disciplines (see Chapter 3.1) (step 5).

We identified a wide spectrum of various patterns that capture EAFS diversity. In total, the information from our sample relevant to answering our research questions was synthesized into 12 sub-themes and three main themes, resulting in a novel framework that may guide future investigations of EAFS (see visualization Figure 2 in Chapter 4). We present the results in Chapter 4 and discuss them in Chapter 5 (step 6).

constructed identities rather than simply referring to characteristics such as skin color. This practice acknowledges shared histories, cultural identities, and shared experiences of systemic oppression and resistance among Black and Indigenous communities (Laws, 2020; Weeber, 2020).

7 Further gray literature case studies on the impact of food sovereignty by key movement organizations are included in the systematic literature review by Sampson et al. (2021).

TABLE 2 Six-phase framework, based on Braun and Clarke (2006) and Maguire and Delahunt (2017), was used and applied for the thematic analysis in this study (illustration by the authors).

Step 1	Data familiarization: Retrieve data, screen, and structure items by reading and taking notes.
Step 2	Generate initial codes: Organize reading material and data in Microsoft EXCEL in a systematic way to address the research question and perspective.
Step 3	Search for broader themes: Identify quotes and examples by developing and using analytical questions starting from the research questions and organize them into broader themes.
Step 4	Review themes and build sub-themes: Review, modify, and develop the preliminary themes by developing and using analytical questions from the research questions.
Step 5	Define and name themes and sub-themes: Consideration of the interaction and relation between identified patterns.
Step 6	Write-up: Present the results (chapter 4) and discuss them (chapter 5).

4 Integrative literature review: conceptualization of diverse Economic Actors striving for Food Sovereignty (EAFS)

In the following, we present EAFS diversity according to patterns we identified in the literature. Each sub-theme encompasses a spectrum of differentiation and options for distinction which illustrate the diversity of EAFS. As mentioned in Chapter 3, it is possible that themes and sub-themes can interrelate with each other.

4.1 Theme 1: conditions that shape EAFS

The literature addresses three *basic conditions that shape EAFS* in terms of *motives*, the *perspective of transformation*, and *intersectionality* (also see Table 3). Theme 1 therefore reflects generic aspects that affect Theme 2 and also Theme 3.

4.1.1 Motives

Several studies highlight that activities of EAFS are inspired by a wide range of underlying motives (e.g., Larder et al., 2014; Hoey and Sponseller, 2018; McClintock and Simpson, 2018). James et al. (2021, p. 13–14) found that the struggle against "neoliberal racial capitalism (such as privatization, competition, and rationalization)" unites the motives of both individual organizational actors (EAFS seen as an organization) and individual actors (e.g., founders and leaders of organizations) to establish, manage, and operate EAFS. Other motives identified are concerns over problematic policies, negative effects of the industrial, corporate food system, or a limited public awareness of such aspects (Hoey and Sponseller, 2018). According to one study, food sovereignty related motives "were found in the bigger ideas of why actors supported and initiated" (Clendenning et al., 2016, p. 10) their organization. A single EAFS may often determine food sovereignty as an abstract goal without detailing its meaning or how it should be implemented (see Alberio and Moralli, 2021). However, Di Masso et al. (2014) point out that individual motives, viewpoints, and strategies of EAFS can differ depending on local interpretations of food sovereignty principles, as well as geographical and historical context, such as colonialism. Thereby, the motives of EAFS can be explicitly or implicitly linked to the food sovereignty concept. By explicit motives, EAFS speak the language of food sovereignty and include the term "food sovereignty," often referencing the Nyéléni Declaration or engage in movements that explicitly refer to food sovereignty. In addition to those EAFS that are aware of the concept, there are others that do not explicitly know and use food sovereignty language. Yet many EAFS "might not be using the language of food sovereignty but are in fact engaged in initiatives that fit within a food sovereignty framework" (Desmarais and Wittman, 2014, p. 5). These apparently implicit EAFS, that are often 'invisible' in the food sovereignty discourse, have been studied by various scholars (e.g., Abdoellah et al., 2020; Beingessner and Fletcher, 2020; Ertor-Akyazi, 2020; Robinson, 2021; Santafe-Troncoso and Loring, 2021). These EAFS do not necessarily "talk the talk" of food sovereignty in terms of words, but Figueroa (2015, p. 5) argues that they "walked the walk" practically. Naylor (2019, p. 715) describes these EAFS as "outsiders" that "might (or not) advocate or ally with groups working toward food sovereignty." Although these EAFS do not refer to the term as such, their principles, values, related motives, and corresponding practices are characterized by scholars as being aligned with food sovereignty principles (e.g., Clendenning et al., 2016; Stapleton, 2019a). EAFS can adopt the food sovereignty concept "as a kind of 'leitmotif' and try to comply with its basic principles" (Lutz and Schachinger, 2013, p. 4,781). Motives and goals of EAFS may remain implicit in organizational discourse or be formalized in mission statements (e.g., Kato, 2013; Siegner et al., 2020).

4.1.2 Perspective of transformation

EAFS are often described as following transformative approaches that change agri-food systems on a spectrum that ranges from progressive to radical (see Giménez and Annie, 2011 cited by, e.g., Alkon and Mares, 2012, Di Masso et al., 2014, Schiavoni, 2016; see also Pimbert, 2018). A transformational perspective implies the reorganization of production and the reduction of dependency on the market through a range of market- and non-market-based approaches (Larder et al., 2014; Calvário, 2017; Madsen, 2021; Sippel and Larder, 2021). Progressive approaches predominantly focus on practical alternatives, such as initiating local organizations and reforms. In contrast, radical perspectives of transformation aim at destroying the capitalist power structure of the current economic system. Examples in the literature are acts of disobedience, such as circumventing legal constraints or land occupations (e.g., Ayres and Bosia, 2011; Roman-Alcalá, 2015; Calvário, 2017; Pahnke, 2021). Clendenning et al. (2016) provide some context regarding different perspectives on transformation in the U.S. urban food movement where CSAs, urban gardens, and farmers markets do not make explicit links to food sovereignty, but structural similarities to food sovereignty principles are evident. Therefore, Ayres and Bosia (2011, p. 60) interpret the CSA approach in the U.S. context as "microresistance to global agribusiness." Conceptions of time required for transformative change differ among EAFS as being described in the literature. Duncan and Pascucci (2017) understand agri-food system transition as a longer-term process across two to three generations, whereas radical approaches favor short-term change, in contrast to long-term perspectives connected with progressive approaches (Di Masso and Zografos, 2015). Scholars note that food sovereignty actors are embedded in the current economic system and operate within a neoliberal, growth-orientated environment of a corporate food regime, which affects their perspectives and strategies of transformation (Alkon and Mares, 2012; Larder et al., 2014; Clendenning et al., 2016). They need access to and control over resources (land, water, knowledge, seeds, and other inputs) and enter into various relationships with producers and service providers for credit, implements, tractors, manure and compost fertilizers, fuel, digital technology, etc. (e.g., Ortega-Cerdà and Marta, 2010; Badal et al., 2011; Calix de Dios et al., 2014; First Nations Development Institute, 2014; Pimbert, 2018; Carolan, 2018 Ruiz-Almeida and Rivera-Ferre, 2019). Due to being embedded in the current system, scholars warn that EAFS runs the risk of also reproducing conventional, capitalist, neoliberal structures, and mechanisms that may include racism and other forms of social exclusion thereby limiting their transformative potency (e.g., Alkon and Mares, 2012; Garcia-Sempere et al., 2018).

4.1.3 Intersectionality

This is emphasized as another condition shaping EAFS. To integrate bundles of identities and possible forms of discrimination in the context of EAFS, several scholars are using an intersectional lens in their food sovereignty studies (e.g., Kato, 2013; Kerr, 2013; Collins, 2019; Calvario et al., 2020) or refer to intersectional approaches (e.g., Fairbairn, 2012; Moragues-Faus and Marsden, 2017). The historical origins of many such

organizations indicate multiple, intersecting connections with food sovereignty through the struggles of marginalized and discriminated actors (e.g., peasants, rural and migrant workers, Indigenous people, small- and medium-sized producers, pastoralists, fishers, rural women, and peasant youth). Commonly cited examples include forms of intersectional injustice linked to historical and contemporary colonialism (such as slavery, dispossession, and racism) and interconnected categories of discrimination (such as class, race, gender, age, and religion) within a neoliberal system (e.g., Alkon and Mares, 2012; Kerr, 2013; Vallejo-Rojas et al., 2016; Portman, 2018; Tramel, 2018; Collins, 2019; McCune and Sanchez, 2019; Turner et al., 2020; Sippel and Larder, 2021; Pahnke, 2021). In this context, anti-discrimination rules, expanded education and empowerment activities, and formal monitoring systems are identified as necessary for EAFS to reduce the risk of power abuse and to address intersectional power relations and structures of domination, such as racism, sexism, xenophobia, and other forms of inequality (Iles and de Wit Maywa, 2015). With regard to structural inequality in the forms of racism and class power, Fairbairn (2012) argues for the promotion of intersectional perspectives, particularly so in EAFS in urban areas. As referenced by Kato (2013), many EAFS have yet to address the intersectional nature of power relations, especially regarding whiteness and the positionalities of the middle class, which are particularly relevant for EAFS in the Global North. The integration of Indigenous and Black food sovereignty perspectives in EAFS activities, struggles, and self-reflection are examples of a counter strategy (e.g., First Nations Development Institute, 2014; Taylor, 2018; Santafe-Troncoso and Loring, 2021). Further examples are the interlinking of food sovereignty activism and scholarship with a critique of gender inequalities and of violence against women, and a corresponding strategy to ensure equal decision-making power by empowering and advancing women to resist both the patriarchy and neoliberalism, as well as promoting agrarian reform policies that contribute to gender equality (Kerr, 2013; Calix de Dios et al., 2014; Deepak, 2014; De Marco Larrauri et al., 2016; Plahe et al., 2017; Portman, 2018). Although food sovereignty is interpreted by Collins (2019) as a feminist concept in principle, she calls for more attention to further inequalities intersecting with gender relations in control over property in agricultural land.

4.2 Theme 2: economic-related characteristics

The conditions that shape EAFS (theme 1) affect the second theme *economic-related characteristics* leads to three sub-themes, *production forms, mode, practices, and services*, the *scope of supply chains,* as well as *forms of partnerships and cooperations* (also see Table 4).

4.2.1 Production forms, mode, practices, and services

The literature contains a diversity of production forms which relate to land and agriculture in terms of agroecology informing the production of seeds, crops, and how to process products, thus being a key building block for food sovereignty (e.g., Reardon et al., 2010; Anderson, 2018; Gliessman et al., 2019; McCune and Sanchez, 2019; Siegner et al., 2020; Resler and Hagolani-Albov, 2021). Some scholars describe peasant agriculture as being close to agroecology, whereas others distinguish between agroecology and a more general peasant mode of production (Soper, 2020; Van Der Ploeg Ploeg, 2020). Other publications refer to agroforestry (Moreno-Calles et al., 2016; Santafe-Troncoso and Loring, 2021), organic agriculture (Alberio and Moralli, 2021), the integration of aquatic resources by artisanal fishing, as well as hunting and gathering as production forms, often by Indigenous peoples, rural workers, and migrants (Desmarais and Wittman, 2014; Sonnino et al., 2016; Hoey and Sponseller, 2018; Mills, 2018; Ertor-Akyazi, 2020; Soper, 2020). The mentioned examples can be ascribed to a so-called first generation of food sovereignty actors. In most publications, these small-scale producers, and especially peasants, are described as key actors of a first food sovereignty generation (e.g., Dunford, 2015; Dekeyser et al., 2018; Soper, 2020). This includes peasant farming, gardening, pastoralism, forest-based production, and activities of members of rural landless movements, as well as of other small-scale users of natural resources that are producing food (e.g., Iles and de Wit Maywa, 2015; Hoey and Sponseller, 2018; Pimbert, 2018; Pollans, 2018). The spectrum contains LVC member associations from the Global South and North, such as landless workers' movements (e.g., Movimento dos Trabalhadores Rurais Sem Terra, MST) (Blesh and Wittman, 2015; Calvario et al., 2020; Sippel and Larder, 2021) as well as peasants, farms with up to 1,200 acres, with employed workers, or fully mechanized farms, and various peasant and movement associations that sometimes pursue conflicting ideologies, identities, and production practices (Giménez and Annie, 2011; Bhattacharya, 2017; Fladvad et al., 2020). The spectrum of forms of production identified in the food sovereignty literature ranges from self-production (e.g., honoring food sovereignty as an everyday practice, especially the contributions of women; see Turner et al., 2020) to production for external use by providing goods and/or services, for example, "organic products for

TABLE 3 Theme 1: conditions that shape EAFS.

Sub-themes	Identified patterns in the literature
Motives	Struggles against the current (neoliberal, capitalist, etc.) agri-food system; depending on local interpretations of food sovereignty and its principles (i.e., geographical, historical, and founding background/context); explicit and implicit links to the food sovereignty concept; food sovereignty as "leitmotif" implicit or be formalized in mission statements
Perspective of transformation	Struggles against the current (neoliberal, capitalist, etc.) agri-food system; depending on local interpretations of food sovereignty and its principles (i.e., geographical, historical, and founding background/context); explicit and implicit links to the food sovereignty concept; food sovereignty as "leitmotif" implicit or be formalized in mission statements
Intersectionality	Integrating bundles of identities and forms of (structural) discrimination, injustice, and inequality based on class, race, gender, age, religion, etc.; establishment of anti-discrimination rules, expanded education and empowerment activities, and formal monitoring systems; counter strategies such as integration of indigenous and black food sovereignty perspectives in EAFS activities, struggles, and self-reflection

sale" (Levkoe and Blay-Palmer, 2018, p. 73). Food processing is often reduced in the discourse to a critique of capitalist food processing. A recurring argument is that conventional food processing leads to more salty, fatty food (Paddock and Smith, 2018) and is sometimes connected in the literature with food regime terminology such as in "industrially processed 'food from nowhere'" (Schiavoni, 2016, p. 19). For these reasons, several researchers call for more food infrastructure perspectives in the food sovereignty discourse that can include private, decentralized, or collaborative distribution and processing activities or possibilities that interlink with other EAFS along the supply chain (e.g., Kato, 2013; Borras et al., 2015; Pollans, 2018; Courtheyn, 2018; Hoey and Sponseller, 2018; Anderson, 2018; Garcia-Sempere et al., 2019; Thiemann and Roman-Alcalá, 2019; Matacena and Corvo, 2020). Food infrastructure enables the flow of goods and services (e.g., purchase, transport, processing, storage, cooling of food, or flows of related equipment) along the supply chain from farms to consumers. For this reason, it is described as a powerful element of food sovereignty and scholars call for more attention to these activities (Lutz and Schachinger, 2013; Binimelis et al., 2014; Campbell and Veteto, 2015; Leitgeb et al., 2016; Schiavoni et al., 2018; Seminar et al., 2018; Thiemann and Roman-Alcalá, 2019; Van Der Ploeg, 2020; Keske, 2021; Levkoe et al., 2021). In some studies, the number of slaughterhouses, businesses milling flour, food hubs, and dairy and non-dairy products are used as indicators for food infrastructures supporting food sovereignty (Vallejo-Rojas et al., 2016; Ruiz-Almeida and Rivera-Ferre, 2019; Levkoe and Blay-Palmer, 2018). In the context of food production, some EAFS aim to reduce capitalist market dependencies through integration of activities of further types of producers, workers, consumers, and of civil society organizations (e.g., Dekeyser et al., 2018; Mills, 2018). The production activities of these actors, for example, short food supply chain (SFSC) initiatives such as AFNs and CSAs, as well as urban agriculture, community gardening, and artisan food production, have been introduced by De Schutter (2013) as the so-called second food sovereignty generation (e.g., Borras et al., 2015; Gupta, 2015; Clendenning et al., 2016; Al Shamsi et al., 2018; Garcia-Sempere et al., 2019; Thiemann and Roman-Alcalá, 2019; Matacena and Corvo, 2020; Siegner et al., 2020; Alberio and Moralli, 2021; Sippel and Larder, 2021). A critically mentioned example in the context of production is that some corporations are using the term food sovereignty as a marketing tool to sell food products. Fairbairn (2012) characterizes this as a dilution and cooptation of food sovereignty (see also Alkon and Mares, 2012; Clendenning et al., 2016; Loyer and Knight, 2018; Daye, 2020). One example refers to a corporation that applies an indicator-based food product label that includes a sub-indicator called "food sovereignty" (Jawtusch et al., 2013).

4.2.2 Scope of supply chains

Supply chains cover different sectors which are linked to each other, which is why Lubbock (2020) argues for the inclusion of forward and backward linkages of EAFS along the supply chain. This includes production, various forms of food infrastructure, trade, processing, and distribution facilities, as well as the out-of-home consumption sector (e.g., restaurants, catering, farm-to-school, and farm-to-cafeteria programs), which can include activities of a variety of organizational members (e.g., farmers, workers, technicians, and civil society activists) (e.g., Fairbairn, 2012; Borras et al., 2015; Clendenning et al., 2016; Powell and Wittman, 2018; Al Shamsi et al., 2018; Calvario et al., 2020; Van Der Ploeg, 2020; Sippel and Larder, 2021; Beingessner and Fletcher, 2020; Pye, 2021). The spectrum contains a diversity of supply chain activities in different contexts such as local-regional, national, and global (e.g., Iles and de Wit Maywa, 2015; Roman-Alcalá, 2015; Garcia-Sempere et al., 2018; Oteros-Rozas et al., 2019; Ruiz-Almeida and Rivera-Ferre, 2019). One often mentioned example are SFSCs like forms of direct trade, for instance, farmers markets and food hubs (e.g., Giménez and Annie, 2011; Laidlaw and Magee, 2016; Hoey and Sponseller, 2018; Alberio and Moralli, 2021; Keske, 2021; Resler and Hagolani-Albov, 2021) as well as other SFSC initiatives such as AFNs and CSAs (e.g., Borras et al., 2015; Gupta, 2015; Clendenning et al., 2016; Al Shamsi et al., 2018; Garcia-Sempere et al., 2019; Thiemann and Roman-Alcalá, 2019; Matacena and Corvo, 2020; Siegner et al., 2020; Alberio and Moralli, 2021; Sippel and Larder, 2021). Another example are 'closed' supply chains that build, for instance, distinct Black agri-food supply chains for Black farmers and other Black supply chain organizations that founded vertical enterprises (Taylor, 2018). In contrast to this, some studies indicate a wide range of spatial relations of food sovereignty initiatives. For example, Soper (2020) analyzed Indigenous peasant producers in Ecuador that organized as a producer cooperative to cultivate cash crops for export and trade them on the world market with consumers in the Global North.

4.2.3 Forms of partnerships and cooperations

Several scholars highlight different cooperation forms of EAFS in view of how to achieve food sovereignty that incorporates different actors. One example is networks of cooperatives which organize alternative markets and coordinate direct purchasing groups based on solidarity and cooperation rather than competition (Koensler, 2020). Another example is the co- and redesign of agri-food systems through new forms of cooperation such as CSA models (as one often cited type of AFNs), where consumers are recurringly referred to as co-producers in respective studies (e.g., Duncan and Pascucci, 2017; Alberio and Moralli, 2021) and the integration of actors traditionally or conventionally being considered "outsiders" to food production and distribution activities (Naylor, 2019). Food infrastructure, which is often organized across the supply chain as networks as a form of cooperation between producers, processors, and consumers, is another example of partnerships and cooperatives (Lutz and Schachinger, 2013; Borras et al., 2015; Figueroa, 2015; Moragues-Faus, 2016; Dekeyser et al., 2018; Pollans, 2018; Garcia-Sempere et al., 2019; Matacena and Corvo, 2020). The case of new rural–urban alliances between different actors, for example, producers and consumers, shows that cooperation can correspond with new organizational structures (Giménez and Annie, 2011; Desmarais and Wittman, 2014; Sippel and Larder, 2021). In speaking about patterns of intersectional approaches to agri-food system transformation, Taylor (2018) it is important to describe a specific economic form as a collective action and thus a vehicle for self-empowerment. For example, Black farmers and other Black supply chain organizations founded vertical enterprises and have thereby built distinct Black agri-food supply chains. The previous examples show that sub-themes can be interrelated. Sometimes, EAFS cooperate with industrialized farmers of the Global North or with supermarkets to increase their impact and to unlock the transformational potential that some food

sovereignty actors identify in such unusual arrangements (Claeys, 2012; Larder et al., 2014). Scholars highlight that in building and managing such partnerships between different actors, approaches, interests and goals, and tensions between can occur (Alkon and Mares, 2012; Moragues-Faus, 2016; Garcia-Sempere et al., 2018).

4.3 Theme 3: organizational-related characteristics

The conditions that shape EAFS (theme 1) affect also the third theme *organizational-related characteristics* leads to six sub-themes, *organizational forms*, size, *property forms*, *governance, management, and organization,* and *labor,* as well as *knowledge sharing* (also see Table 5).

4.3.1 Organizational forms

Blue et al. (2021) identify diverse organizational forms using Gibson-Graham's (2006) concept of diverse economies, highlighting a range of different economic rationalities and ways of engaging in economic activities (as referred to by Moragues-Faus, 2016 and Wittman et al., 2017). Thiemann and Roman-Alcalá (2019) see small-scale, worker-owned food businesses as so-called homologues to the organizational form of peasant and family farms, indicating that these also belong to EAFS (since peasant and family farms are often understood as paradigmatic cases of EAFS, see, e.g., Wittman et al., 2017, Sippel and Larder, 2021). Organizations are established by either producers, consumers, or workers or by a set of different actors (e.g., Lutz and Schachinger, 2013; Thiemann and Roman-Alcalá, 2019). Studies distinguish EAFS using notions such as collectives and cooperatives, in general, or, more specifically, producer cooperatives, producer networks, co-ops, and buying groups, as well as community enterprises and community-owned enterprises (Gordon, 2016; Soper, 2020; Keske, 2021; Pahnke, 2021). Others include social enterprises that are described as hybrid organizational forms without the aim of profit maximization (e.g., Desmarais and Wittman, 2014; Figueroa, 2015; Laidlaw and Magee, 2016; Alberio and Moralli, 2021; Machín et al., 2020). McClintock and Simpson (2018) point out that these different forms of organizations may operate quite differently with regard to agri-food system transformation. In addition, scholars highlight that "the six founding principles of [food sovereignty] portray a focus on agrarian rights and food production" and the challenge that "its lack of clarity and contradictions, specifically in terms of its organizational structure and its values, has led to critiques and debates" (Dekeyser et al., 2018, p. 231).

4.3.2 Size

The debate on size is usually focusing on small- to medium-sized local or regional producers such as peasants and farmers or food processors. These EAFS are often framed as being alternative, small, positive, good, or locally embedded as opposed to conventional, big, negative, bad, global, not locally embedded, centralized organizations, such as multinational companies in food processing, distribution, and retailing, as well as large-scale farms (e.g., Alkon and Mares, 2012; Campbell and Veteto, 2015; Moragues-Faus, 2016; Beingessner and Fletcher, 2020; Calvario et al., 2020; Daye, 2020; Alberio and Moralli, 2021; Blue et al., 2021; James et al., 2021). Finding the optimal size for organizations corresponding with diverse and vague food sovereignty principles is mentioned in the food sovereignty literature as a challenge for upscaling and growth (Lutz and Schachinger, 2013; Noll and Murdock, 2020).

4.3.3 Forms of property

Many scholars such as Blesh and Wittman (2015), Borras et al. (2015), Roman-Alcalá (2015), Shattuck et al. (2015), Leitgeb et al. (2016), Wittman et al. (2017), Taylor (2018), James et al. (2021), and Pahnke (2021) analyze EAFS' property forms with a focus on land (e.g., land access, governance, use, sovereignty, rights, reforms, and occupations). Land is thereby often related to the historical origins of food sovereignty and related struggles. Some scholars also refer to access to and use of resources in general (Mihesuah, 2017), or seeds, patents, etc. in particular (Kerr, 2013; Campbell and Veteto, 2015). In addition, Carolan (2018) relates food sovereignty and property aspects to digital technology and data control. Blue et al. (2021) advocate for the inclusion of a property perspective along the supply chain in discussions on food sovereignty studies, and Calvário (2017) further extends this to the organizational level of EAFS, stating that most farm holdings are privately owned. With regard to forms of property in the means of production, some forms identified in the literature go beyond traditional or conventional private forms of property (Garcia-Sempere et al., 2019). Examples include land cooperatives, community-owned farms, and land trust organizations that are

TABLE 4 Theme 2: economic-related characteristics.

Sub-themes	Identified patterns in the literature
Production forms, mode, practices, and services	Agroecology, peasant agriculture, gardening, agroforestry, organic farming, fishing, hunting, gathering, pastoralism etc.; spectrum from self-production to external production (goods/services); food infrastructure: flows of goods, services, and equipment (e.g., purchase, transport, processing, and storage cooling of raw materials and food) by a first- and second generation of food sovereignty actors including SFSCs (e.g., direct trade, AFNs, and CSAs); term food sovereignty used as marketing tool to sell food products
Scope of supply chains	Forward and backward linkages in different sectors: production, food infrastructure, trade, processing, distribution, out-of-home consumption; context of supply chain activities (e.g., local-regional, national, and global); spectrum from short supply chains through activities of SFSCs (e.g., direct trade, farmers markets, food hubs, AFNs, and CSAs) and 'closed' supply chains (e.g., distinct Black agri-food supply chains), to globalized supply chains (e.g., producing cash crops for export)
Forms of partnerships and cooperations	Networks of cooperatives (e.g., alternative markets, direct purchasing groups based on solidarity, and cooperation); co- and redesign of agri-food systems with consumers as co-producers (e.g., CSA models and forms of AFNs); networks and alliances between different actors (e.g., producers, processors, food infrastructure actors, and consumers); vertical enterprises for self-empowerment (e.g., Black farmers); unconventional alliances (e.g., with industrial farmers or supermarkets)

interpreted as having the potential to challenge private property regimes by replacing them with a community-based mechanism more conducive to food sovereignty and any respective agri-food system change (Wittman et al., 2017). Alternatives that support democratization of agri-food systems, and thus food sovereignty (see discussion above), according to the literature, include producer-owned processing facilities and suitable forms, such as the cooperative, whether created by (family) farmers or (farm) workers (e.g., Taylor, 2018; Thiemann and Roman-Alcalá, 2019; Soper, 2020; Pahnke, 2021). Hoey and Sponseller (2018) argue that creating new business models and establishing new EAFS could potentially undermine the general property concentration in agri-food systems. Questions relevant for the assessment of these issues are included in the practical toolkit of the First Nations Development Institute (2014).[8]

4.3.4 Governance, management, and organization

Food sovereignty is grounded in concepts of self-determination and self-governance (Ertor-Akyazi, 2020; Noll and Murdock, 2020). Regarding economic decision-making, the aspect of democratic control is often emphasized in the discourse in opposition to traditional hierarchical understandings of how to organize food production and distribution (e.g., Alberio and Moralli, 2021). Pahnke (2021, p. 381) highlights the aspect of control in and over the organization in general and that it is often "unclear if claiming ownership is the same as taking control. Moreover, what kind of ownership, or control, is being encouraged? Collective, individual, or perhaps both?" (see also Taylor, 2018). Food sovereignty literature concerning decision-making and organizational governance often ignores internal organization and its actors (e.g., Reardon et al., 2010; Badal et al., 2011; Dekeyser et al., 2018; Santafe-Troncoso and Loring, 2021; Pye, 2021). Actors within an EAFS can be a board of directors or specific types of organizational members, such as workers (e.g., Kato, 2013; Wittman et al., 2017; Stapleton, 2019a; Machín et al., 2020). Governing for food sovereignty at the organizational level includes, for Resler and Hagolani-Albov (2021), a respectful management approach practicing autonomy and democracy (Villalba-Eguiluz et al., 2020). Some EAFS provide and foster opportunities for such self-organization and participation by organizing collective spaces for members to engage in discussion and exchange (Calvário, 2017; Porcuna-Ferrer et al., 2020). Moragues-Faus (2016) mentioned decentralization, participatory, and non-hierarchical organization as characteristics of food co-ops and buying groups distinguishing them from traditional and conventional organizations operating in food distribution. Some EAFS use specific decision-making techniques such as radical democracy and consensus-oriented forms of deliberation (e.g., Roman-Alcalá, 2015; Moragues-Faus, 2016; Vallejo-Rojas et al., 2016; Duncan and Pascucci, 2017; Gallegos-Riofrio et al., 2021). According to Porcuna-Ferrer et al. (2020), the appropriate organizational and leadership skills of organizational members and their positive effects can promote organizational stability.

4.3.5 Labor

This sub-theme includes a spectrum of diverse forms of labor across agri-food supply chains done by peasants and farmers (e.g., preparation of agricultural inputs, post-harvesting, food processing, and distribution) (e.g., Seminar et al., 2018; Pye, 2021), by workers (e.g., rural, landless, migrant, and undocumented) in production on farms, in horticulture, plantations, or aquaculture, as well as in food transportation, storage, processing, manufacturing, service, wholesale, and cooking (Borras et al., 2015; Laidlaw and Magee, 2016; Moragues-Faus and Marsden, 2017; Levkoe and Blay-Palmer, 2018; Stapleton, 2019a; Thiemann and Roman-Alcalá, 2019; Van Der Ploeg, 2020; Pye, 2021). In the context of labor, research addresses how to connect EAFS with unions and the need for critical approaches to labor relations within EAFS (Thiemann and Roman-Alcalá, 2019; Calvario et al., 2020; Korsunsky, 2020). Some food sovereignty researchers investigating, for example, EAFS labor relations consider historical and current forms of feudal, slave, and child labor (Deepak, 2014; Larder et al., 2014). A recurrent point is that predominantly white, affluent food movements pay less attention to labor and migration relations than non-white social ones (Korsunsky, 2020; Sunam and Adhikari, 2016). In addition, literature also includes discussions about wage labor in general, addressing topic such as working conditions, income, and pensions (e.g., Alkon and Mares, 2012; Lutz and Schachinger, 2013; Deepak, 2014; Scialabba, 2014; Iles and de Wit Maywa, 2015; Gliessman et al., 2019; Korsunsky, 2020; Pye, 2021), as well as policy proposals, including minimum income, the fair sharing of jobs, and disparities in free time between men and women (Calix de Dios et al., 2014; Pimbert, 2018).

4.3.6 Knowledge sharing

This can occur through training, education, awareness raising, and leadership workshops, particularly through empowerment of women. It is frequently highlighted in the food sovereignty literature as an important factor in making the transformation of agri-food systems relevant for qualified work in food production and distribution of EAFS (Deepak, 2014; Campbell and Veteto, 2015; McCune and Sanchez, 2019). According to Fairbairn (2012), food sovereignty should not be reduced to educating individuals since this could depoliticize actors, potentially weakening the food sovereignty movement (Clendenning et al., 2016). Place-based, traditional, and indigenous knowledge of seeds, agricultural processes, preparation and preservation of foods, healthy nutrition, hygiene aspects, and decision-making are mentioned by a number of authors as being supportive of food sovereignty and of empowering both individuals and organizations (Lutz and Schachinger, 2013; Calix de Dios et al., 2014; Gupta, 2015; Plahe et al., 2017; Thiemann and Roman-Alcalá, 2019; Machín et al., 2020).

Our findings regarding the three themes and 12 sub-themes of EAFS are a first step toward building a more comprehensive conceptual framework for understanding the diversity of EAFS at the organizational level. Our primary focus here is on thematic analysis, acknowledging a generic theoretical underpinning as explained in Chapter 2, without

8 Examples are: "How many food and farm businesses (such as groceries, farmers' markets, roadside stands, restaurants, co-ops, implement dealers, and others) operate in your community? What number of these are owned/operated by: Tribal members (or other Natives), The tribe, Non-Natives" (First Nations Development Institute, 2014 p. 69). "Take a map of your community and draw out ownership lines. Who owns what? Who controls what?" (First Nations Development Institute, 2014 p. 88).

delving into proper theory building or conceptualization. Thus, Figure 2 provides an overview of the themes and sub-themes. Theme 1 represents overarching aspects that affect both theme 2 and theme 3, thereby laying the basis for the discussion of our findings in the following chapter. In addition, see Supplementary Table S1 for illustrating the diversity of EAFS in descriptive terms.

5 Discussion

Despite the character of our investigation of the food sovereignty literature, some analytical conclusions and hypotheses can be drawn from our initial framework. We discuss the findings below and conclude this chapter with limitations and implications for further research.

5.1 Incorporation of different generations of EAFS along the agri-food supply chain

Incorporating organizational perspectives in this study is understood to mean paying attention to what we conceptualize as Economic Actors striving for Food Sovereignty (EAFS) which are able to act. This study confirms that attributes of EAFS are mentioned explicitly and implicitly in the food sovereignty literature, but a comprehensive overview and conceptualization of

TABLE 5 Theme 3: organizational-related characteristics.

Sub-themes	Identified patterns in the literature
Organizational forms	E.g., (single or family) farms, worker-owned food businesses, (community-owned or social) enterprises, (hybrid) organizations organized and built as (single) enterprises, networks, collectives, cooperatives, etc. without the aim of profit maximization; different forms of organization operate differently
Size	Often binarity of size (small as good versus big as negative); aspects of organizational up-scaling and growth over time
Forms of property	E.g., private, family, producer, worker, community ownership as well as collectives or cooperatives (regarding land, resources in general, seeds, patents, data, organizations, etc.); ownership and control differentiation; creation of new ownership forms
Governance, management, and organization	Different forms of (self-)determination, governance, control, decision-making, and (democratic) participation; collective spaces and voting tools like consensus; internal (leadership) roles, skills, and competencies; respectful management approaches; integration and participation of organizational members
Labor	Multiple roles and forms of (in-)visible work (like (un-))paid and/or voluntary labor; full-time, part-time, and seasonal employees; social and care work; own/internal and external working conditions; income, wages, and adequate pensions; unionization
Knowledge sharing	Via training, education, awareness raising, leadership workshops, empowerment; place-based, traditional, and indigenous knowledge

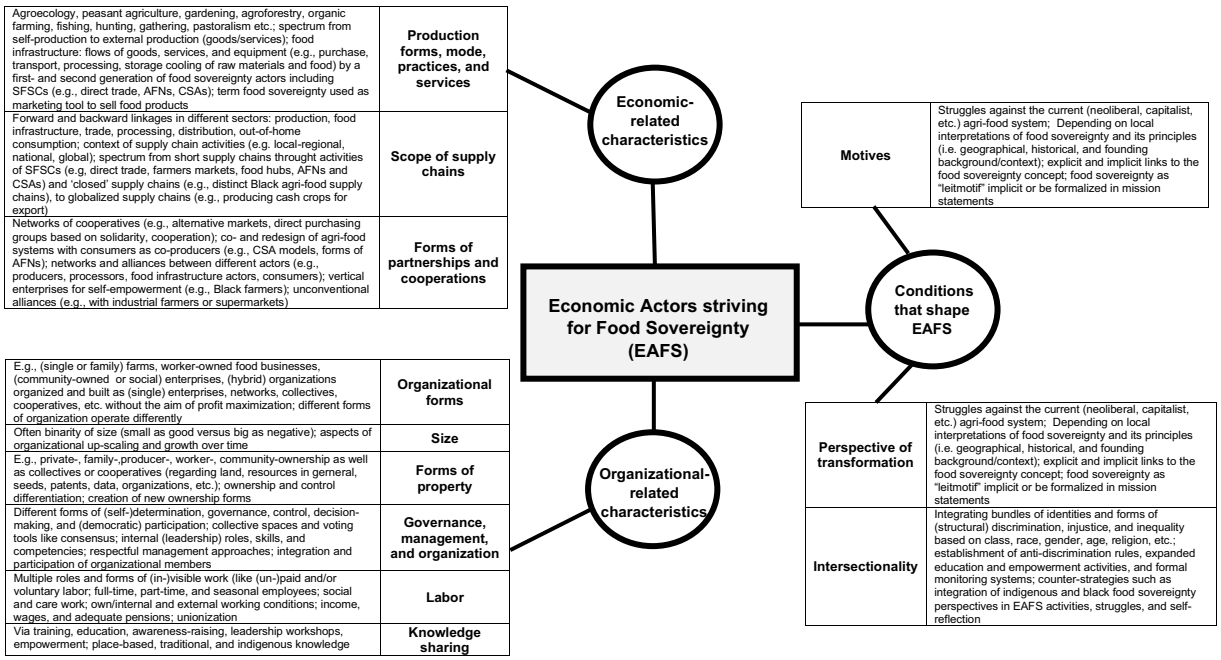

FIGURE 2
Framework: Characterizing the diversity of Economic Actors striving for Food Sovereignty (EAFS). Visualization of the three main themes (i) *conditions that shape EAFS* (Chapter 4.1), (ii) *economic-related characteristics* (Chapter 4.2), and (iii) *organizational-related characteristics* (Chapter 4.3) (see circles) with 12 related sub-themes and identified patterns (see tables) from the literature sample.

those organizational actors is thus far missing. This is somewhat surprising given that the food sovereignty movement itself presented an action agenda for an alternative economic model which is outlined, for instance, in the documentation of the Nyéléni Forum in Mali by the Nyéléni International Steering Committee (2008). This documentation (full report of the Forum) includes various economic actors that are covered by our presented EAFS conceptualization; however, this publication is rarely cited in the discourse (exceptions are, for instance, Blue et al., 2021 and Seminar et al., 2018). The food sovereignty concept aims to transform agri-food systems toward justice and sustainability, yet the literature often overlooks an economic actor perspective of the role of EAFS as actors of change who are engaged in enacting, driving, or contesting transitions. This oversight may be due to the critical stance toward economic actors prevalent in the food sovereignty discourse. In contrast, related discourses on themes such as diverse economies and SSE highlight the importance of recognizing and understanding these actors' diversity and provide more differentiated perspectives (Gibson-Graham, 2008; Zanoni et al., 2017).

In this study, this oversight is contrasted with a developed EAFS framework that offers a conceptual language for EAFS, illustrating the existence and the diversity of this group of actors. Our findings indicate that the diversity of EAFS originates from two different food sovereignty generations. One explanation for the under-representation of EAFS, in particular regarding the scope of agri-food supply chains, might be the historical origins of the movement that focused on primary producers of the first food sovereignty generation (i.e., peasants, farmers, and rural workers). Consequently, supply chain actors, for example, food processors, have often been overlooked in the discourse, despite the food sovereignty movement's stated aim of transforming agri-food systems. The focus on primary sector actors and related production activities, and the omission of an explicitly addressed supply chain perspective may stem from associations with corporations in general or with food processing, both often negatively generalized. This aligns with research gaps identified in agri-food sustainability transitions, where food processing and distribution (see framework theme 2 in Chapter 4.2) are underrepresented in research (see El Bilali, 2019 and suggestions for further research). Making visible the diversity of EAFS along the supply chain has the potential to foster (new) forms of partnerships and cooperations between EAFS.

5.2 Motives of striving for food sovereignty with varying strengths and conflicting goals

Most EAFS share a general motive to transform agri-food systems toward justice and sustainability (see framework theme 1 in Chapter 4.1). Our findings show that what can be termed 'explicit EAFS', familiar with the term and concept of food sovereignty, and 'implicit EAFS', not directly using the terminology, both exist and contribute to this diversity. This finding supports Shattuck et al. (2015) and Figueroa (2015), who argue that food sovereignty is "happening" and "walking" even if the actors do not directly "talk" the food sovereignty language in terms of words. Their motives include raising awareness of societal and environmental issues, and making practical changes in food production and distribution (see theme 2). In addition, the conditions that shape EAFS can not only affect economic-related characteristics along the agri-food supply chain but also involve the reconfiguration of organizational aspects, such as organizational structures and ways of organizing (see organizational-related characteristics in theme 3 in Chapter 4.3). In contrast to other discourses, organizational perspectives are more prominent in, for example, SSE research than in the food sovereignty literature analyzed in this study (see, for example, Calvario et al., 2020, Villalba-Eguiluz et al., 2020, Alberio and Moralli, 2021). Each sub-theme of the developed EAFS framework contains a broad spectrum of possibilities for differentiation and options for distinction. Therefore, the framework illustrates that the food sovereignty concept suffers from some inconsistencies and generalizations. For example, some EAFS oppose capitalist food system structures or try to reduce their involvement in them by, for instance, establishing direct (trade) relations (sub-theme forms of partnerships and cooperations), while others remain embedded in the (international) capitalist market and build alliances (at least partially) with capitalist and other conventional agri-food system actors (see example of EAFS, more precisely small farmers which are part of the MST movement, selling in order to survive economically organic products to a French multinational company, by Böhm et al. (2016), as well as Soper, 2020 in framework theme 2).

Another example where the food sovereignty concept suffers from some inconsistencies and generalizations is that the support for family peasant farming, gender equality, and collective rights often does not critically question the traditional model of family farms and property relations (Collins, 2019). The food sovereignty discourse frequently addresses gender in binary terms of "men and women" (see Ruiz-Almeida and Rivera-Ferre, 2019), neglecting not only the distinction between sex, gender, and sexuality but also the diversity within these constructions. Further food sovereignty studies could shift the attention from the production of (traditional) gender roles to the making and unmaking of binary gender (see Pfammatter and Jongerden, 2023 for de- and re-constructions of gender and farming identities by queer farmers). Thus, it seems that some of the identified examples contradict principles of food sovereignty. Including intersectional perspectives (see theme 1) can provide a more nuanced analysis of how diverse EAFS are structured, organized, and operated (see, e.g., the study of Von Redecker and Herzig, 2020 for the inclusion of intersectional and queer-feminist perspectives in the context of LVC). Our study thus facilitates to balance the investigation of sometimes conflicting food sovereignty goals and principles regarding economic-related activities, organizational-related characteristics, etc.

5.3 Need for connecting themes instead of isolating alterity

By incorporating organizational perspectives, we draw attention not only to economic-related characteristics but also to organizational-related characteristics that can be also very diverse and cover a broad spectrum. The findings of this study indicate that food sovereignty literature so far rarely connects with or shows differentiation of *economic-related* (framework theme 2) and *organizational-related*

characteristics (theme 3) (also see Tables 3–5, and framework in Figure 2). These themes are often viewed through one of two lenses: "alternative" (and then associated with normative or generalized analytical claims, e.g., good, positive, small, local, non-capitalist, non-market-based, democratic, and non-hierarchical), against "conventional" or "mainstream" (associated in opposite ways with, e.g., being bad, negative, big, global, capitalist, market-based, non-democratic, and hierarchical). These lenses do not always prove analytically useful (e.g., Renting et al., 2012; Larder et al., 2014; Cruz and van de Fliert, 2023). For instance, an EAFS might have non-capitalist economic-related characteristics but maintain hierarchical organizational forms. The diverse configuration options of CSAs illustrate this point. The alternative production-distribution model of a CSA (see theme 2) can be organized and owned as a community farm with democratic management (see sub-theme *property forms* in theme 3), or organized and owned by a single farmer (Grenzdörffer et al., 2022; see also Wittman et al., 2017 about cooperative land ownership as pathway toward food sovereignty).

Such differences may impact transformative potentials and the ability of EAFS to reproduce under market conditions, which is why generalizations about so called "alternative" production systems (e.g., small-scale peasant agriculture, agroecological production, CSA model), alternative organizational forms (e.g., cooperative ownership), or alternative organizational governance (e.g., collective decision-making), which are often associated with food sovereignty and its principles, may often impede the differentiation in views (e.g., Beingessner and Fletcher, 2020; Korsunsky, 2020; Soper, 2020; Pye, 2021). Research has shown that organizations being labeled "alternative" can also engage in social exclusion or prioritize profit over sustainability, similar to "conventional" organizations (e.g., Slocum, 2007; Nesterova, 2021). Therefore, food sovereignty scholars (e.g., Clendenning et al., 2016; Borras, 2016; Korsunsky, 2020) and AFN research (e.g., Rosol, 2020) advocate for critical views on alterity. This is consistent with organizational research that supports nuanced views, recognizing that hierarchical structures within EAFS can sometimes be useful or necessary, depending on the context (Parker, 2021). Although EAFS are often framed as being alternative organizations, they may combine different features in very specific ways that defy a precise location on a single gradient of a degree of alterity. To properly analyze and assess alterity, it seems useful to look at each theme and sub-theme individually. We thus agree with Parker et al. (2014) that the interrelations of various aspects of EAFS must be analyzed (see, for example, MST farmers mentioned above). Future studies should avoid viewing alterity in isolation and instead understand EAFS as products of multiple, often hybrid or contradictory practices.

5.4 Organizational level to incorporate challenges of and within EAFS

Our analysis revealed dilemmas of EAFS that can lead to challenges regarding agri-food system transformation. For instance, EAFS are embedded in socio-economic structures intersecting various power relations, shaping their operations, obstacles, and solutions. While food sovereignty literature focuses on different analytical contexts (local-regional, national, and global), it often overlooks EAFS, crucial for driving change, at the organizational level. This overlooking of organizational challenges can thwart food sovereignty activism and undermine its goals. This bias also undermines goals of social inclusion and empowerment since EAFS are often established, managed, and operated by severely marginalized groups (see framework theme 1). They have a hard time even keeping their organizations functional, with few resources left for strategic thinking or developing replicable solutions for the challenges that might help support other EAFS by strengthening their transformative impact. This challenge is poignantly expressed by alternative food movement research in which a cited practitioner describes it as follows: "It's hard to be strategic when your hair is on fire" (Hoey and Sponseller, 2018, p. 606).

If EAFS are unstable and cannot sustain, scale, or multiply in the long term, agri-food system transformation is unlikely to happen. Research has a responsibility to support resource-limited EAFS in developing solutions to their challenges. Including organizational perspectives from related fields can help better analyze EAFS and develop counterstrategies to the challenges that question their reproduction and promotion. Based on this, we argue that detailed investigations of concrete organizational practices, including management approaches, are needed to ensure and increase their organizational stability (see framework theme 3). However, there is so far a notable gap between food sovereignty literature and critical management and critical organization studies, despite both approaches challenging capitalist, neoliberal, and patriarchal systems as well as advocating for alternatives to them (e.g., Alvesson et al., 2009; Grey and Willmott, 2010).

As our study has shown, property aspects and relations are rarely explicitly addressed and are not a focus in the food sovereignty literature. Where mentioned, it is typically limited to land issues. Therefore, we argue more attention be paid to examining property relations at the organizational level of EAFS, particularly in relation to who is actually in control of the means of production within economic actors in general but also of EAFS in particular. In this context, we call for overcoming simplistic claims that being "alternative" is, for instance, inherently transformative, gender sensitive, and socially inclusive (see Chapter 5.3 above). Furthermore, property relations that partly deviate from or are in conflict with (Western) private property should be explicitly investigated. EAFS might provide an interesting case for organizational studies, reflecting the assertion made by Peredo et al. (2022) that the problems of our time should not be addressed solely through so-called Western knowledge and that scholarship, especially in management and organization studies, should adopt decolonial perspectives. Considering the diversity of property relations identified in the food sovereignty literature on EAFS (see theme 3), the complexity of these relations should be analyzed in view of social-ecological transformations (Grenzdörffer et al., 2022). Bencherki and Bourgoin (2019), for example, highlight that property is at the heart of organizations and labor relations, but even organizational scholars rarely discuss these issues. Our findings also indicate that labor relations in EAFS are underdeveloped, despite the "United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas" considering peasant farmers and rural workers as equals (Van Der Ploeg, 2020).

Following Parker's (2021) assertion that we do not know which forms of organization work best in particular contexts, we conclude that the food sovereignty movement should focus more on the diversity of EAFS from organizational perspectives. This could be achieved by integrating relevant organizational knowledge, for example, into the curricula of existing "Agroecology Schools" that follow food sovereignty principles (for such schools, see McCune and Sanchez, 2019; Garcia-Sempere et al., 2018; for "Schools for Organizing" see Parker, 2021). This is especially so because small- and medium-sized organizations often need external support for organizational learning (Braun et al., 2022). We, as authors of this study, collaborated in previous projects with various food sovereignty movement associations, as well as EAFS. Therefore, we have tried to align our research with the awareness of research by Nyéléni Germany, which states that research should contribute to more food sovereignty[9]. We argue that our approach has the potential to facilitate this.

5.5 Limitations and implications for further research

Our thematic analysis of an integrative literature review offers a detailed examination of specific aspects of food sovereignty literature rather than a comprehensive description of the entire data sample as it would be in a systematic literature review. The inclusion of additional keywords could lead, for example, to the identification of further publications. Since the literature search was conducted in August 2021, more recent publications are not included in the sample, although current literature is referenced in other chapters. Thematic analysis is chosen for its suitability where existing theories or research on a phenomenon are limited and is used without relying on a pre-existing theoretical framework. We do not tackle these theoretical backgrounds due to their implicit nature, varying contexts (local-regional, national, global), and insufficient elaboration, particularly concerning EAFS, which require a separate theoretical project with uncertain outcomes. Another limitation is that our study does not provide insights into how EAFS operates due to the limited knowledge about these actors (see also limitations mentioned at the beginning in Chapter 1).

While we focus on food sovereignty, related alternative food concepts, such as food democracy, which overlap with the food sovereignty discourse (e.g., Resler and Hagolani-Albov, 2021; Anderson, 2023), could also benefit from incorporating actor and organizational perspectives. In this context, it should be noted that our conceptualization of EAFS does not encompass all types of organizations and their forms mentioned in alternative food concept discourses. Examples are pure network or movement organizations (see Heckelman et al., 2022 for a farmer-led network organization) and food policy councils (see Candel, 2022 in the context of the food democracy concept), which are not economic active itself.

There are several areas for further research that emerge from our study:

First, the developed framework might guide future studies, which more closely interlink existing theoretical perspectives with those aspects of EAFS that have been identified in the literature. This will require further consideration of possible interrelations of our conceptualization approach (i.e., (main) themes and sub-themes), such as through investigating the concrete organizational practices of EAFS. For example, a grounded theory approach could develop mid-range theories based on empirical work, focusing on specific research questions about how EAFS relate to different analytical contexts, rather than aiming for a unified theory of EAFS within food sovereignty contexts (for grounded theory, see Bitsch, 2005 with reference to Glaser and Strauss, 1967).

Second, an in-depth examination of the food sovereignty pillars (see Chapter 1) could provide a fruitful starting point for further research. A recent literature review by Benavides-Frias et al. (2023) explored the "Works with Nature" pillar of the Nyéléni Declaration (see Nyéléni International Steering Committee, 2008) which emphasizes food-nature relationships and its representation in academic literature. The review identified two main topics: 'practices and use of resources' and 'ecological conditions'. While our study addresses the first topic which includes the spectrum of ecological agriculture forms, wild-life hunting, harvesting, and fishing, as well as intensive-industrial agriculture (see *economic-related characteristics* in theme 2), the second, various human-nature relationships, is not explored in depth. Further research could consider not only the commonly cited Nyéléni Declaration (cf. Nyéléni, 2007) and the six food sovereignty pillars but also the comprehensive documentation of the Nyéléni Forum in Mali, which offers broader insights but is rarely cited (see full report by Nyéléni International Steering Committee, 2008).

Third, a more nuanced analysis of EAFS within a particular group of actors is needed, moving beyond generalized views of alterity. As became clear in the discussion, we do not yet know which forms of organization work best in particular places. Research could investigate different CSA organizations to determine which configuration(s) are more conducive to achieving food sovereignty.

Fourth, further food sovereignty research could explore the widely overlooked field of food infrastructure and the role of individual sectors such as food processing. This analysis could support the hypothesis that food infrastructure, often represented by implicit economic actors such as mills or small- and medium-sized food processors, plays a crucial role in striving for food sovereignty. These actors' connections to primary producers and labor can have a stabilizing effect on them.

6 Conclusion

This study finds that while food sovereignty has received substantial scientific attention as an alternative food concept and a global movement, a differentiated actor perspective at the organizational level, particularly of the economic actors as actors of change, is often neglected. Therefore, our aim is to conceptualize the diversity of Economic Actors striving for Food Sovereignty

9 "It's important to me to be mindful of the perspective in the discussion that it's not about what we can research about the food sovereignty movement, but how we can contribute to more food sovereignty through our research as part of that movement" (Henrik Maaß, Nyéléni Germany, email from 01-19-2021; own translation from German; authorized for citation from the cited person).

(EAFS) at the organizational level by identifying patterns in food sovereignty literature. To achieve this, the literature is synthesized into a EAFS framework with 12 sub-themes, grouped into three main themes: (i) *conditions that shape EAFS*, e.g., motives, which affect (ii) their various *economic-related characteristics,* e.g., diversity of production forms, mode, practices, and services, scope of supply chains, forms of partnerships and cooperations, as well as their (iii) *organizational-related characteristics,* e.g., diversity of property forms, governance and management approaches, labor, and knowledge sharing. Each of the 12 sub-themes encompasses a wide spectrum of diversity with different options for distinction that illustrate the diversity of EAFS.

By focusing on the organizational level of EAFS, the findings of this study offer a conceptual language for this group of actors, enabling a more detailed consideration of their diversity. The economic actor perspective helps to identify a broad set of EAFS of different food sovereignty generations along the agri-food supply chain, and perceive their potentiality to foster new alliances and obtain mutual support. Overall, the results of this study indicate that food sovereignty is also a diverse organizational phenomenon, which can help address challenges faced by EAFS and develop solutions to strengthen them. Furthermore, the results of this investigation show that EAFS often combine alternative and conventional elements that differ in their specific configurations, which is why we argue to consider the different framework themes instead of isolating alterity. In this way, our framework allows for more nuanced critical discourses. It serves as a preliminary step for the inclusion of the organizational level and the role of EAFS more systematically in food sovereignty studies and research on agri-food system transformation. In this line, our integrative perspective can help make organizational patterns of food sovereignty more visible and may serve as a guideline for future, theoretically more elaborate studies that further enhance our understanding of these groups of actors. In addition, researchers, practitioners, and food movements can also use the findings, as well as in the context of related alternative food concepts such as food democracy, to better understand and develop such concepts and its involved actors.

Author contributions

MM: Conceptualization, Methodology, Data curation, Formal analysis, Writing – original draft, Writing – review & editing, Visualization, Funding acquisition. CH: Supervision, Writing – review & editing, Resources.

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Conflict of interest

The authors declare 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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Supplementary material

The Supplementary material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fsufs.2025.1258633/full#supplementary-material

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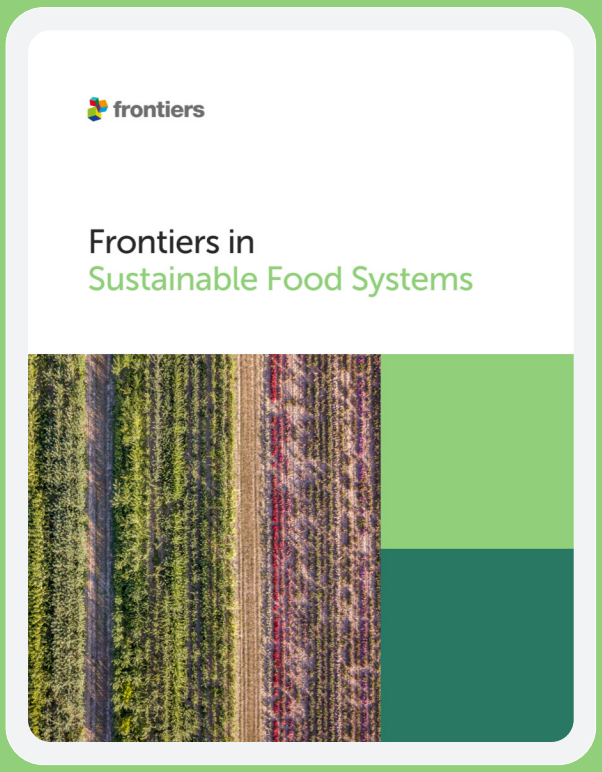

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