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Knowledge, Power and the Governance of Food System Transformation

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Abstract

This paper examines how power-knowledge relations shape the mobilization, recognition, and suppression of local knowledge in food system transformation. Drawing on Foucault's subjugated knowledges, we analyse how experiential, place-based expertise encounters institutional resistance within regional governance frameworks. Through case studies from Skåne and Värmland, Sweden, we identify forms of transformative local knowledge, strategies actors employ to sustain them, and mechanisms of their marginalization. Our findings reveal how governance routines, regulatory norms, and national policy agendas constrain transformative potential, while demonstrating how local actors' agency creates alternative pathways for systemic change.

Keywords: *sustainability transitions, local knowledge, food system transformation, place-based governance*

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1. Introduction

Food systems are high on global political agendas. International organisations increasingly recognise the links between food systems, climate change and inequality (UNDP, 2024; WHO, 2022; FAO; EC, 2021). This global attention has generated a strong call for transformation. Recent United Nations (UN) assessments identify governance as a central factor in these efforts because it shapes how decisions are made and whose voices are heard (Fesenfeld et al., 2023; Leeuwis et al., 2021; The Food Systems Countdown Initiative (FSCI), 2026; Thow et al., 2022; van Bers et al., 2019). However, governance alone cannot drive systemic change. It depends on actors' knowledge, capacities and agency across different levels of decision-making (Grillitsch & Sotarauta, 2020; Kristensen et al., 2023).

Knowledge, however, is never "value-free" (Christensen, 2024) and in food systems, it is shaped by power relations and institutional structures that elevate certain perspectives and marginalise others (Fonte, 2008; López Cifuentes et al., 2023). Drawing on (Foucault, 1980, pp. 81-82), minor, practice-based and local knowledge, so-called "low-ranking knowledges", are often treated as "subjugated knowledges", overshadowed by dominant narratives and policy discourse. What counts as legitimate knowledge is therefore produced through power and not merely through evidence. Understanding transformation thus requires focusing on how knowledge and power interact within governance processes (Foucault, 1980, p. 93). Transformative change is often described as multi-scalar (Coenen et al., 2024; Miörner & Binz, 2021; Shaw et al., 2018), but change becomes lived reality in local settings, where practical know-how meets formal expert knowledge and where actors, not "passive rule-followers" but "knowledgeable agents" challenge, adapt and reinterpret policy ideas in their everyday work (Molas-Gallart et al., 2021). These micro-processes can either reinforce existing power structures or open new pathways for the transformation of systems.

This paper steps into this complex landscape by addressing an existing tension in research on system transformation: it emphasises the need for more diverse actors who both shape and are shaped by policy agendas (Georghiou et al., 2014; Ghosh et al., 2021; Wanzenböck et al., 2020), but we still know too little about how power and knowledge shape whose expertise is recognised, and the struggles of minor/local knowledges to gain recognition in real governance settings. Thus, we contribute to debates around power within sustainability transitions, and their governance (Avelino, 2017; Avelino & Wittmayer, 2016; Köhler et al., 2019). We argue that understanding this tension requires examining how power-knowledge relations shape what knowledge is heard, what is silenced and how actors handle these dynamics. This leads to our research question: *how do power-knowledge relations shape the recognition, mobilisation, and suppression of local/minor knowledges and how does this influence the possibilities for food system transformation?*

This paper makes three contributions. *First*, we extend Foucault's notion of 'subjugated knowledges' to the context of regional development and system transformation. This helps explain how inclusion rhetoric often coexists with persistent marginalisation in practice and how everyday governance routines maintain these imbalances. *Second*, we make a methodological contribution by applying an analytical approach that reveals hidden dynamics in how minor knowledges emerge, encounter resistance and are translated or downplayed within regional development processes. *Third*, we offer an empirical contribution through case studies in two Swedish regions. Sweden provides a relevant empirical context due to shifts toward decentralised planning models (Brunet Johansson et al., 2025), and increased interest in how local level policy and practical efforts are supporting a transition to more local and sustainable modes of food systems (Krautscheid et al., 2025; Westerdahl et al., 2025). We illustrate what kinds of minor and practice-based knowledges exist and the strategies actors use to keep

them in play. These findings help explain why some change efforts progress while others struggle to gain traction.

Empirically, the paper draws on case studies from two selected regions in Sweden, which are known for their innovative food initiatives currently underway. Our findings offer insights into whose knowledge is recognised and how it is mobilised across different levels, helping to explain the mechanisms that influence the pathways for food system transformation. The remainder of the paper is organised as follows. In Section 2, we start by examining Foucault's framing of knowledge and power, which provides conceptual foundation for our analysis. We then connect this perspective to debates on regional development, place-based approaches and transformative change, highlighting how certain forms of local and fringe knowledge become subjugated and how this shapes the prospects for system transformation. Section 3 describes the methodology applied in the paper, Section 4 presents the analysis, Section 5 offers a discussion of the findings and finally, Section 6 concludes the paper.

2. Conceptual framework

We set our paper against a backdrop of a small but burgeoning interest amongst researchers of local level planning and governance in understanding how actors at the local level (such as municipalities) “navigate asymmetrical power dynamics and challenge territorial inequalities” (Skoog, 2025:1). Recent work has highlighted the importance of power and knowledge in understanding the dynamics of local policy and planning practice (Nagorny-Koring, 2018; Skoog, 2025). Also, evidence points to the power asymmetries at various territorial scales, and in particular between the local (often peripherally profiled) and the national (and core profiled) policy arenas (Brauer, 2025; Brunet Johansson et al., 2025). Meanwhile, scholars have noted the importance of considering power when studying sustainability transitions (Avelino, 2017; Avelino & Wittmayer, 2016; Köhler et al., 2019). Acknowledging these insights, we discuss how the marginalization and peripheralization of certain knowledges as discussed by Foucault (1980) translate into tensions of system transformation in a regional development and multi-level governance context. We propose that revisiting some fundamental theory relating to power, knowledge and governance could help us to better specify the role of power within sustainability transitions more broadly, leading to better theoretical specification (Köhler et al., 2019).

2.1. Power and knowledge: a mutual constitution

Claiming that the work on Foucault provides some interesting insights regarding power is something of a truism: he is widely recognised as one of the twentieth centuries' most influential thinkers (Danaher et al., 2000), and there is a precedence for employing his thinking across both human geography and sustainability studies (e.g., Elden & Crampton, 2016; Gregory, 1998; Hanna et al., 2015; Luke, 1995). In the case of this study, we wish to apply the insights we have gleaned about local knowledge from reading Foucault's works (and those of others drawing on his ideas) to further theoretically elaborate the role of local knowledge and power within sustainability transitions, opening up the “black box” of the local within a complex and multi-level geography which sustainability transitions inhibit (Hansen & Coenen, 2015).

Foucault (1980) speaks of a “return of knowledge” or “insurrection of subjugated knowledges”, forms of knowledge that were once marginalised but are now re-merging to challenge established ‘truths’ (p. 81). He argues that every society operates within a specific “regime of truth”, which defines what is generally accepted as true (Foucault, 1980, pp. 131, 85). These regimes are typically anchored in

scientific discourses and the institutions that support and legitimize them. Scott's observation that certain forms of knowledge and control require a narrowing of vision" (Scott, 1998, p. 11) closely resonates Foucault's argument that dominant regimes of truth delimit what can be recognised as legitimate knowledge. Scott perceived that the complexities of the social and physical worlds had historically rendered them illegible to those seeking to control them. In response, models of state governance had evolved a narrowness of vision that brought "into sharp focus certain limited aspects of an otherwise far more complex and unwieldy reality. This very simplification, in turn, makes the phenomenon at the centre of the field of vision more legible" (Scott, 1998 p.11). The process of simplification required state officials to abstract complex realities into categories that could be clearly defined, a process that enabled the direct rule of a now imperfectly visible society. By making social worlds 'legible', the state elevates formalised knowledge while side-lining the practical, adaptive forms of METIS ("a wide array of practical skills and acquired intelligence in responding to a constantly changing natural and human environment" (Scott, 1998 p.313) that cannot be captured through such reduction. As a result, localized or minor forms of knowledge often exist in tension with dominant scientific frameworks that enforce hierarchical structures of truth. An important extension comes from Said's application of Foucault's thinking to critique colonialism and its processes of othering, which we highlight up front as an important perspective when working in the Swedish context. (e.g., Össbo, 2023). To resist this dominance, minor and local knowledges must be emancipated from subjugation and empowered to contest the coercive force of a unitary scientific discourse. This can happen through the reactivation of marginalized local perspectives (Foucault, 1980, p. 85). Foucault (1980) identifies two types of 'subjugated' knowledge. The first consists of 'history contents', those forms of knowledge that were hidden or ignored because of prevailing discourses claimed to represent 'truth', thereby excluding diverse perspectives (Foucault, 1980, p. 131). The second type includes "local popular knowledges" or "naive knowledges" positioned low in the hierarchy (Foucault, 1980, p. 82). These challenge dominant structures and discourses by introducing alternative viewpoints. Indeed, the 'autonomous and non-centralised' production of knowledge, whose validity does not depend upon "the approval of the established regimes of thought" (Foucault, 1980, p. 81) is essential for questioning dominant assumptions and top-down 'prescriptions'. Taken forward within human geography, Katz (1996) highlights the potential power of minor knowledges (via her concept of minor theory) to challenge and disrupt the core. Foucault (1980) also notes a paradox: 'subjugated' knowledge combines both 'erudite knowledge' and 'local memories', exposing the hierarchical power relations that determine what counts as truth (pp. 83, 52).

This subjugated knowledge operates within hierarchical systems of power that not only exclude knowledge but actively shape what is recognised as truth (Foucault, 1980, p. 93). Foucault (1980) emphasises that power is productive, he conceptualises it as "struggle-repression" (p. 92). Power organizes discourses, establishes norms, and determines which perspectives gain legitimacy (Foucault, 1980, pp. 89-92). These structures create asymmetries where dominant scientific regimes claim universality, while alternative knowledges are pushed to the margins. Resistance emerges through the reactivation of these suppressed perspectives, exposing the relational nature of power and its role in governing knowledge, creating a state of "disequilibrium" (Foucault, 1980, pp. 90, 245). Rather than being static, knowledge circulates across scales i.e., local, regional, global, transforming as it moves through time and space. This mobility reveals persistent tensions in how truth is constructed and maintained, and how hierarchical systems continually negotiate challenges from below (Foucault, 1980, pp. 90-91).

Finally, according to Foucault (1980), power becomes effective not only through written laws but "the whole complex of apparatuses, institutions and regulations responsible for their application" (pp. 95-

96). These are generally understood as tools of domination but also as mechanisms that set relations of domination into motion. Their force lies in institutional practices through which these relations are enacted, something Foucault (1980) calls the “micro-mechanisms of power” (p. 101). These mechanisms underpin what he describes as a ‘society of normalisation’, where specialised knowledges shape how populations/societies are regulated (Foucault, 1980, p. 107). Within such a system, regulatory frameworks oftentimes derive their effectiveness from the ‘normalisation’ processes that institutions use to govern everyday life.

2.2. *Transformative knowledge and power in regional development*

In this section, we interpret Foucault’s insight in the context of a regional perspective to system transformation. In doing so, we aim to identify in what way the power-knowledge nexus matters for system transformation in a regional context. A starting point is that knowledge plays a key role for economic development and change. For instance, Lundvall and Johnson (1994:23) argue that “knowledge is the most fundamental resource in our contemporary economy and that learning is therefore the most important process.” Based on this proposition there has been a large body of work that investigated knowledge, learning, and knowledge combinations as drivers for innovation, industrial dynamics, and regional and economic development (Morgan, 2008; Rutten & Boekema, 2012).

Interestingly, in relation to regional development, the reform towards place-based approaches has also emphasised local knowledge. In one of the foundational reports, Barca (2009, p. VII) argues that in place-based approaches, which aim “at tackling persistent underutilisation of potential and reducing persistent social exclusion [...] public interventions rely on local knowledge and are verifiable and submitted to scrutiny, while linkages among places are considered. The report argues that this strategy is superior to alternative strategies that do not make explicit and accountable their territorial focus or even hide it behind a screen of self-proclaimed space-blindness, fail to integrate services, and either assume that the State knows best or rely on the choices and guidance of a few private actors.”

This turn to place-based approaches in the European Union (EU), which is not to be assumed to be a general trend around the world, has emphasised a shift of the power-knowledge nexus from generic and abstract knowledge of experts and higher-level policy makers, and few powerful firms, to the concrete knowledge of local actor groups. This has been complemented with participatory approaches to identify and access local knowledge. In the European context, the smart specialisation approach emphasises that local knowledge should be taken into account in developing priorities for regional development and developing workable pathways towards these priorities (Foray, 2014; Foray et al., 2021). Beyond the European context, place-based policy has also gained momentum in, amongst other places, the United States, Israel and South Korea (Gansauer, 2025; Lee et al., 2026).

In relation to this development, a broad body of work at the intersection between innovation studies, economic geography and regional development has shown that there are different types of knowledge and different modes of innovation, which in very different ways can contribute to economic development. For instance, it has been shown that the focus on science, technology and innovation is far too narrow to capture and use the potential for regional development, especially in non-metropolitan regions (Jensen et al., 2007). Rather, innovation can result from different types of knowledge, and the strongest effect on innovation and regional development was observed from combinations of different types of knowledge (Asheim et al., 2017). The importance of the connections between local assets (including knowledge) and those from non-local “pipelines” is also well established in this literature (Bathelt et al., 2004).

However, even though place-based approaches have thus contributed to lifting the weight of “subjugated local knowledges”, these approaches have been “defective in terms of both substance and process: the substantive shortcoming is that it focuses on a narrowly conceived form of innovation neglecting for instance social innovation; and the process is deficient because the primary agents are narrowly conceived as basically the economic partners in the triple helix i.e., firms, local/regional government and universities, while neglecting fringe actors and vulnerable groups” (Grillitsch et al., 2025:4). Recent work has indeed shown that fringe actors like civil society organisations, user groups, environmental movements, or other actors that are operating differently or outside the dominant industrial paths, are often not heard or listened to in processes of designing or implementing regional development policies (Jolly et al., 2020; Molica et al., 2025). Hence, the knowledge of such local fringe actors can be considered subjugated.

Following Foucault’s logic, this implies that, even though this knowledge might be more radically different and thus offer potential for transformation, it will have difficulties gaining traction in terms of reshaping the direction of regional policy, as well as industrial and economic development more broadly, due to the power dynamics. As Ormerod highlights in her studies of regional development in the North East of England, gendered power dynamics lead to a particular privileging of certain types of knowledge and leadership in regional development along a masculinized competitive logic, which might not be appropriate for left behind places: instead, she calls for feminist, intersectional and anti-racist approaches (Ormerod, 2023, 2025). This will, in our understanding, necessitate an appreciation of these intersectional dynamics around knowledge at the local level, which might be especially important in peripheral regions with high proportions of indigenous, deprived, and “left behind” populations (Pugh & Dubois, 2021). Appreciating the unique assemblages of institutions, actors, and resources that exist in varied regional settings, including those that have long been peripheralized, will necessitate advanced theoretical treatment drawing on inter-disciplinary perspectives and bottom-up insights into knowledge generations and flows on the ground in different regional settings (Willett, 2021; Willett & Lang, 2018).

Furthermore, the principle of giving weight to local knowledge in place-based approaches is potentially in conflict with the increasing directionality exercised from the national level, or international organisations such as the EU in relation to sustainability imperatives, geopolitics, strategic autonomy, and competitiveness (Grillitsch et al., 2025). Such directionality may imply that regions are supposed to work more towards priorities that have not been defined by them, which increases the risks that local knowledges, especially if not in line with such directionality or higher-level discourses, is subjugated and thus made ineffective for transformative change. On the other hand, it has been argued that the local level might be most suitable to navigate and resolve the tensions related to a transformative change, such as typically required for sustainability transitions (Madsen & Hansen, 2019; Wanzenböck et al., 2020; Kristensen et al., 2026 (forthcoming)). Also, in this regard, the Barca report was foresighted arguing that regional differentiated responses are necessary, “for this, local knowledge and preferences must also be necessary both to understand the full extent of climate change effects (on the basis of externally developed scenarios) and to design effective public action to adapt to it (Barca, 2009:137).

Having discussed in which ways local knowledges may be subjugated in the context of regional development, the next important question is *why* and *how* such subjugated local knowledge of fringe actors might be relevant for transformative change. For this, we relate to the literature on human agency in regional development, which aims to explain transformative processes. This literature broadly differentiates between reproductive or maintenance agency and change or transformative agency (Bækkelund, 2021; Grillitsch & Sotarauta, 2020). Reproductive agency is anchored largely in the past, and builds on experience, learned habits and routines as basis for action. Change agency is anchored in

the perception that a future is possible, which is more desirable than the current state of affairs or the likely future if we don't make changes to the way society or economy currently works. By definition, fringe actors are at the margin of the currently dominating industrial paths, and networks. Some fringe actors may be deliberately at the margin because they have alternative futures in mind, since they mindfully deviate from the dominant rationales (Garud & Karnøe, 2001). When such fringe actors start to work intentionally towards such alternative futures, they will learn and over time develop knowledge about the possibility of organising economic processes differently, about technological and market feasibility, and about structural hindrances and enablers for transforming towards such alternative forms of economic organization. Such knowledge can then be considered as transformative knowledge as it contains insights into the possibilities, and pathways of a transformation. Yet the problem remains that such transformative knowledge is at this stage still subjugated, meaning that power asymmetries would hinder its diffusion.

Hence, moving to the empirical illustration of why and how the power-knowledge nexus can hinder transformative knowledge to diffuse, we pay attention to three specific questions:

- *Do local/minor actors possess transformative knowledge and, if so, what kinds?*
- *How do local actors develop and mobilise transformative knowledge?*
- *Through which mechanisms are this knowledge marginalised and how does it hinder its diffusion?*

3. Research design and case introduction

The empirical analysis in this paper is based on evidence collected from two case-study regions in Sweden namely Skåne and Värmland. The regions were chosen to capture diversity in climate-related risks, differences in regional innovation capacity and the presence of interesting policy initiatives in food systems. Värmland stands out as food is one of its smart specialisation areas and the region has been successful in experimenting with innovative public procurement practices. Skåne represents Sweden's most extensive agricultural landscape and plays a central role in national food production. Its designation as the "granary of Sweden" (Olsson & Svensson, 2007) reflects both the scale of cultivation, around half of the region's land is farmed, having some of the most fertile soils and forest areas in Sweden and Europe (Region Skåne, 2020). The food sector is also recognised as a specialised area for innovation at the regional level, making it interesting for understanding systemic transformation.

Data collection was carried out in two stages. First, we conducted in-depth interviews with key actors from policy and practice in each location. To ensure consistency, all interviewees were asked the same set of questions, focusing on (1) their involvement in developing the regional food strategy and the roles played in that process; (2) challenges encountered when collaborating across different levels of government and with other food-sector actors; (3) perceived implications of these challenges for efforts to make the food system more sustainable; and (4) suggested changes to improve collaboration between governance levels and actors to support a more sustainable food system. For the purposes of this study, we understand a sustainable food system as one that not only reduces environmental pressures but also confronts the broader political and economic dynamics that sustain unsustainable practices, a transformation that requires coordinated action across governance levels rather than relying solely on individual consumer behaviour (Morgan, 2010). Each interview lasted on average between 40-60 mins, was audio-recorded and conducted only after participants had signed a consent form. In total, 25 interviews (one group interview with two persons) were conducted with national, regional and local policy makers, practitioners, politicians and organic farmers (see Table 1). The interviews were carried

out both on-site and digitally between 2023 and 2025. All interviews were transcribed and manually thematically coded to identify key patterns and major themes: (1) the configuration of existing knowledges and the institutional conditions underpinning them; (2) the emergence and articulation of transformative knowledge forms; (3) the procedural, discursive and organisational mechanisms through which these emergent knowledges are pushed to the margins. In addition, two participatory workshops were held with 8-12 participants each, bringing together stakeholders from national, regional and local levels. They were held on April 3-4, 2025 (W1 in Karlstad, Värmland) and September 15, 2025 (W2 in Lund, Skåne). The aim of the workshops was to (1) validate initial interview findings, (2) identify additional perspectives (3) generate collective reflections on key themes. Workshop discussions centred on discussing key challenges and outlining timelines for necessary actions, while providing a collaborative space for identifying critical shifts and barriers to progress. The workshop discussions were audio-recorded and subsequently transcribed.

Table 1: List of interviews

#	Interviewer	Identifier	Date
1	Representative from Nordic Innovation Food Arena	P1	19/2-2025
2	Catering manager, Karlstad municipality	P2	6/3-2025
3	School director, Children and Youth Department, Karlstad municipality	R1	5/3-2025
4	Business development director, Filipstad municipality	R2	4/3-2025
5	Politician, Karlstad municipality	R3	3/3-2025
6	Public health policy strategists (2), Region Värmland	R4	24/2-2025
7	Process coordinator, County Administrative Board of Värmland	R5	21/2-2025
8	Business development strategist, Region Värmland	R6	20/2-2025
9	Business development adviser, Foodtech Innovation Network, Region Skåne	R7	28/11-2024
10	Food policy strategist, Karlstad municipality	R8	29/11-2024
11	Organic farmer, Region Skåne	I1	21/10-2024
12	Organic farmer, Region Skåne	I2	10/06-2024
13	Organic farmer, Region Skåne	I3	07/11-2024
14	Organic farmer, Region Skåne	I4	21/10-2024
15	Organic farmer, Region Skåne	I5	18/10-2024
16	Organic farmer, Region Skåne	I6	25/10-2024
17	Organic farmer, Region Skåne	I7	05/10-2024
18	Organic farmer, Region Skåne	I8	07/11-2024
19	Organic farmer, Region Skåne	I9	18/10-2024
20	Organic farmer, Region Skåne	I10	07/11-2024
21	Organic farmer, Region Skåne	I11	04/06-2024
22	Organic farmer, Region Skåne	I12	30/05-2024
23	Organic farmer, Region Skåne	I13	14/06-2024
24	Organic farmer, Region Skåne	I14	10/11-2023
25	Organic farmer, Region Skåne	I15	09/10-2023

4. Analysis

4.1. *'Repertoires' of local knowledges and the conditions shaping them*

"I think our food producers know a lot and can do a lot, but as we often do in Sweden, we skip over the people with real hands-on expertise and trust the 'experts on paper' to solve the problem" (R3)

Interviews reveal a diverse repertoire of local knowledges, grounded in daily practice, ecological experience and long-term engagement with food-system governance. Actors describe hands-on expertise in production, public kitchens and procurement (I1, I4-I7, I9, I11, I15). This includes organic cultivation techniques, seasonal timing and soil processes, with some farmers advocating movement beyond current standards toward more regenerative practices (I15). Such ecological and seasonal knowledge occasionally conflicts with regulatory requirements, as illustrated by the farmer required to demonstrate field activity despite grazing practices that leave pastures largely rested; photographic evidence was later accepted as proof (I6).

Local actors also possess knowledge related to resource use, waste valorisation and upscaling within the food sector (R1-R3, R5). In Karlstad, surplus food is repurposed into smoothies or compotes (R1), while another municipality converts low-value organic by-products, such as ergot fungus (considered hazardous), into high-quality protein using mealworms (R2). These practices are supported by public communication strategies, including social media outreach (R1, R4). Market-related knowledge further forms a core element of local expertise, with actors demonstrating detailed insight into pricing, consumer trends and retailer power (I4, I8-I10, I12). Farmers describe how powerful intermediaries shape what reaches consumers (I8) and how organic premiums have declined due to retailer mark-ups and shifting consumer priorities (I10). Certification is viewed as yielding limited market value, functioning mainly to secure land subsidies (I9) and is seen as poorly adapted to diversified production systems (I9). Consumer purchasing power remains central: *"people have less money [...] they want cheaper food, and they don't buy ecological"* unless food safety concerns arise, such as antibiotics in meat or pesticides in potatoes (I8).

Procurement knowledge constitutes another significant repertoire. Actors understand cost rules, quality criteria and constrains surrounding local sourcing (P2, R3). Public procurement law is perceived as prioritising competitive neutrality and price, effectively disadvantaging local or organic suppliers. As one interviewee put it, *"There are no labelling and no criteria beyond price. So, price always wins"* (P2). Given the role of public institutions as major buyers, this procurement logics shape the conditions to which producers must adapt rather than influence (I3).

These repertoires of knowledge are continually shaped by political, institutional and market conditions that influence which knowledges are considered or sidelined. A recurring theme the tension between practical, context-sensitive knowledge and formal, institutional authority. While local actors possess a rich and diverse base of knowledge, they described it as being 'overshadowed' by formal authority. Even with limited structural power, they still enact situated forms of agency, for example through networking, membership in associations and advocacy for ecological integrity (I1, I4, I9, I11-I14).

Farmers emphasise how political priorities shape recognition of knowledge. They describe how *"the new government, and ... especially the new minister, is totally relying on the big industry, [...], the big farmers, the big forestry companies, the big [conventional] agriculture companies [...]"* and how this orientation is used *"to close organic farming"* (I1). Organisations such as KRAV (Kontrollföreningen för ekologisk odling) and the Swedish organic farming association (Ekologiska lantbrukarna) are seen as too institutionally weak to shift the system (I1). Interviewees also describe a policy environment

privileging scale and standardisation (I2). County-level actors may recognise the values of local and organic practices, but their support is limited by inspection-related accountability, as those “[...] *who does the controls, they also need to be able to have their back free*” (I6).

Within these structural constraints, actors exercise bounded forms of agency. Association membership provides access to collective arenas even when organisational priorities diverge from personal or local ones, illustrated by the interviewee who remains involved in Ekologiska lantbrukarna despite its focus on animal production leaving little room to discuss reducing it (I11). Networks help local actors interpret shifts in retail practices, such as the removal of organic products from shelves, which in turn affects consumer uptake because “*if they’re not there, of course people aren’t buying organic*” (I12). Respondents also engage in normative critique of dominant knowledge frameworks, including questioning the authority of life cycle assessments (LCA), described as “*just a method, not the truth [...]*” and rejecting assessments that rank indoor chicken systems as most climate effective as “*absurd*” (I13). These examples show how local actors work to protect the integrity of their own knowledge while contesting external framings that they perceive as misaligned with ecological and ethical realities.

Policy and procurement dynamics further shape the environments in which local knowledge is enacted (R1-R3, P2). Earlier policy frameworks like Livsmedelsstrategin (i.e., Swedish Food Strategy), with its explicit targets for organic production, remain important reference points (I1). Current political and procurement priorities, however, emphasise cost efficiency and scale (I1, P2). The tension between policy ambition and price-driven purchasing is summarised in the remark: “*we want organic, but we won’t buy it if it costs too much*” (I3). Interviewees link these experiences to broader national and European shifts, noting fluctuating support for organic production (I15) and the marginality of agricultural perspectives in climate and sustainability debates (I13). This perception that the current government is unsupportive of organic farming (I15) reflects how historical and political trajectories continue to shape today’s opportunities and constraints (I1, I3, I13).

4.2. *How transformative knowledge takes shape in practice*

These repertoires of local knowledge emerge out of efforts to reshape market relations, through incremental innovation grounded in tacit experience, through collective organisation and through targeted engagement with public institutions. First, small producers use market knowledge to reconfigure their position within dominant value chains. They reduce dependence on dominant buyers by diversifying sales, channels and strengthening direct contact with customers (I2-I4, I8-I11). Farm shops, subscriptions schemes and similar initiatives translate geographical and social proximity into forms of bargaining power (I12, I14). Through value communication and consumer education (P2, I8, I12, W1, W2), products are reframed around origin, quality and relational dimensions rather than price. Interviewees emphasise awareness-rising, particularly around production risks or food safety, can shift demand toward more sustainable options (I8). Branding, packaging and visible quality cues (P2), together with outreach in schools and public kitchens (W2, P2), reinforce how products are presented and understood.

Second, local knowledges develop through incremental experimentation and operational adjustments rooted in tacit expertise and awareness of local conditions (I2, I4-I6, I15). Rather than pursuing large-scale technological shift, producers' trial targeted tweaks e.g., rotations, logistics, processing steps and product formats, to better align with regional conditions and consumer expectations. Such experimentation is typically field-tested and shared informally through peer networks, allowing experiential knowledge to be verified and circulated (R1). Climate-related adaptations follow similar iterative logics: actors document evidence, negotiate deadlines and adjust practices as conditions shift

(I6). These experiments also reflect an applied understanding of resilience, visible in collaborative trials of protein-rich crops in Värmland and the creation of small emergency reserves, including *“the first small part of our crisis stock... about two tons of grey peas.”* (R1) Culinary testing provide further feedback loops, informing refinement, processing decisions and market positioning, *“your product works here... it will work for the public too”* (P2).

Collective organisations further enhance transformative capacity of local knowledge. Sharing machinery, pooling products and coordinating transport help convert narrow margins into stronger collective efficiency (I4, I8, I10). Collaboration reduces costs, spreads risk and facilitates market access for small actors (I1, I3). Shared storage facilities and joint product development stabilise supply and improve the appeal of local goods (R5, P2). These efforts are embedded in dense community networks linking producers, local retailers, schools, and civic groups, which circulate knowledge, labour and social support (I2, I4, I5, I7, I11, I12, I14). Policy frameworks that encourage joint responsibility, predictable contracts and long-term partnership further institutionalises these gains (R1, P2). As one interviewee explains, it is possible to *“create a bilateral system... that gives producers some form of security, so the public sector doesn’t become too unstable,”* since producers *“don’t want to put 10 or 20 percent of [their] production at risk”* (P2). In such way, knowledge becomes transformative through mutual reinforcement and the stabilisation of shared practices.

Knowledge also takes shape through policy engagement and ongoing dialogue with county authorities and public agencies (I1, I13, I6, I7, I15). Actors call for clearer targets, rules, and evaluation criteria, particularly in public procurement and organic production, to reduce uncertainty and ensure fair competition (I3, I8, I9, I11–I13, I15). Tactics range from transparency initiatives to intentional advocacy when opaque procedures or political shifts impede progress (I1, I2, I13, I14, W1, W2). Local public actors also initiate small-scale trials that generate evidence for policy learning and enable collaborative experimentation (P2, R5). As one interviewee noted, *“public kitchens can serve as potential testbeds if we use a bit of research language; they are very eager to participate”* (R5).

Finally, interviewees emphasise that transformative knowledge also depends on wider societal recognition of agriculture and food production (W2, R2). Strengthening the public image of farming i.e., *“farming should be seen as a business”* (W2), rather than a marginal one, was voiced as essential to sustaining future engagement and support (W1). This shapes the legitimacy of local knowledge and the conditions under which it can influence change.

4.3. Mechanisms of “disempowerment” and marginalization

Interviews show that locally grounded knowledge not only undervalued but actively ‘pushed to the margins’ of food-system decision-making. Its diffusion is hindered through several mutually reinforcing mechanisms that determine whose knowledge is recognised, how decisions are justified and which knowledge ‘travel’ beyond their immediate context (I3-I10, I12-I15, I19). Across these mechanisms, power operates by elevating certain forms of expertise while restricting the visibility and mobility of practice-based and context-sensitive knowledge.

A first set of mechanisms relates to unequal access to knowledge, which places local actors in subordinate positions. Producers and practitioners describe lacking technical support and financial skills (I4) as well as missing knowledge to deal with rules, procedures and planning (I4, I5, I7, I8). These gaps make them dependent on consultants, agencies and subsidy specialists (I4). Interviewees also point to the ‘politicisation’ of knowledge. One respondent noted that political actors increasingly challenge *“nutritional recommendations ... [which are] based on knowledge, on research, on evidence....”* and particularly guidance that *“we need to reduce meat consumption...”* (R4). Others share that such

political contestation undermines the legitimacy of research supporting more sustainable practices (R4, W1). Dominant evaluation tools such as LCAs further shape what counts as ‘valid’ sustainability performance (I13, R3, R4). Administrative and subsidy schemes reinforce this imbalance: as one producer put it, *“I see that I have not enough knowledge [...] about projects, subsidies, or efficient ways to make it better [...] I would need to go deeper to get more knowledge”* (I4).

A second mechanism arises from institutional and regulatory complexity, which interviewees describe as fragmented, ambiguous and procedurally heavy (P2, R2, R3, R4, R6, I2, I3, I5, I11-I15). Many refer to *“mixed signals”* from the state, where unclear mandate distribution and shifting expectation make it difficult to understand what is expected (P2, R2, R3, R6). Political shifts intensify this uncertainty, as new leaderships reinterpret national guidance, sometimes delaying planned changes for *“another 10 or 20 years”* (I5, R2, W1). Public procurement illustrates how institutional rules limit the use of local knowledge. Given that municipalities cannot explicitly prioritise locally produced food without breaching procurement law (P2, R1, R3), they must rely on indirect criteria such as requirements for site visits or educational collaboration (R1). Administrative burdens also constrain room for action: *“... so much paper the government is sending that we need to fill for statistics and some things ... we are in like 2024, shouldn't be some other way?”* (I4). In parallel, the institutional landscape is dominated by powerful retailers, ICA is described as *“a dominant monopoly”* (I4), and (conventional) farm, organizations such as LRF (Lantbrukarnas Riksförbund), which are perceived as insufficiently representing organic producers (I11). By contrast, organisations advocating alternative practices e.g., KRAV, Ekologiska lantbrukarna and environmental non-governmental organisations (NGOs) are described as active but too small to counterbalance dominant actors and shift institutional priorities (I1). This clearly makes it difficult for local knowledge to ‘feed into’ mainstream institutional processes and narrow the pathways through which it could circulate.

A third mechanism involves political control over narratives and information flows, which shapes public opinion/understanding of sustainability. Several interviewees describe how powerful organisations downplay environmental impacts, particularly pesticide use (I1, I14). One producer noted that *“LRF [...] don't want the public to know that [...] there's so much spraying going on with pesticides...”* and instead seek to keep such information *“very low”* (I1). Respondents also point to attempts to dilute the meaning of ‘organic’ farming by expanding it to include practices allowing pesticide use and synthetic fertilisation (W2, I1). Such conceptual stretching makes it harder for practitioners to communicate the distinctiveness of the approaches. Political messaging that promotes low-cost consumption further restricts the discursive space where alternative knowledge about sustainability can be discussed or valued (I14). As a result, the narratives needed to support alternative approaches remain marginal (I1).

A fourth mechanism arises from economic and market structures that reproduce unequal power relations and limit the authority of local knowledge. Concentrated retail power and dependence on large buyers weakens small producers’ bargaining positions (W2, R3, R6, I8-I10, I12). As one farmer noted *“the supermarkets decide everything [...] they take the profit, not the producer”* (I2). Many rely heavily on public procurement, which can be unstable: *“If the municipality doesn't buy, then we have no market at all”* (I3). Economic pressures such as lack of financial buffers, rising input costs and misalignment between production cycles and financial systems further restrict room for experimentation (I5, I6, I8). As one producer put it, *“the money comes once a year, but the bills come every month”* (I6). Climate impacts, fluctuating markets and shifting political signals create additional volatility (I11, I14). Producers who are *“too small”* to access support schemes (I1, I2, I7, I11) find themselves caught in short-term survival strategies (I5).

A final mechanism concerns structural rigidity within the food-system itself. Interviewees describe deep dependency on centralised supply chains, specialised processing facilities and long-distance logistics (R5, R3, R4). Producers remain tied to these infrastructures, shifting practices too quickly “*would create only chaos*” (P2). This rigidity also increases vulnerability: while Sweden has multiple dairies and processing plants, many specialise in only one product, meaning that disruptions can halt the entire segments of production (R3). One responded warned that without stronger support for local farmers, “*we are in trouble the day we can no longer import from the south (of Sweden)*” (R3).

5. Discussion: power-knowledge and the (non)recognition of local/minor knowledges

What is evident from our analysis is that local actors such as farmers and municipal practitioners hold a rich repertoire of knowledge spanning concrete i.e., practice-based knowledge (soils, seasonality, rotations, consumer cues) and more abstract i.e., system-level understanding (procurement rules, certification requirements, pricing logics). This hybrid ‘repertoire’ resonates with the tension observed by Foucault (1980): subjugated knowledge mixes erudition (i.e., professional expertise) with local memory. (i.e., traditional practices), which jointly create a form of resistance. Yet within prevailing regimes of truth, authorities oftentimes gain legitimacy by appealing to universally applicable standards and approaches, even if those approaches conform to the discourse of being “place-based”, like in the case of smart specialization (Kristensen & Pugh, 2023).

In Foucauldian terms, ‘regimes of truths’ and ‘micro-mechanisms of power’ shape what can be recognized and acted upon. As our analysis shows, LCAs, certification protocols and inspection regimes function as authoritative arbiters of sustainability, while locally grounded judgments or assessments are treated as partial even when they are empirically sound and pragmatically validated. Foucault emphasized that power is exercised through apparatuses and routines and in our case, three such apparatuses act as selection environments for knowledge. *First*, calculative devices such as LCAs, certification checklists and fixed reporting timelines make some effects visible and others invisible. They synchronize policy and administrative time, often at odds with ecological rhythms. For instance, a grazing practice that conserves pastures can appear in non-compliance simply because evidence is required by a fixed date; only additional evidentiary labour (e.g., photographs) can realign ecological processes with bureaucratic expectations. In this way, calculation becomes a form of governance. *Second*, legal-bureaucratic devices narrow what can legitimately considered in procurement. The focus on price comparability and competitive neutrality in procurement law constrains the integration of criteria such as local origin, soil stewardship or collaborative supplier relationships. Even when officials value contextual practices, they act defensively, recognizing that auditability is the dominant virtue. This reflects a process of normalisation i.e., routines designed for transparency ultimately flatten difference. *Third*, commercial devices shape which products reach the market. Where a few buyers dominate and processing plants are configured for single products, it becomes difficult to bring diversified or experimental products to market (unless they fit the high-volume, centralized model of retail chains).

This hierarchy of credibility is not just discursive it is enforced through actions. As an example, from our analysis, delisting organic items creates an illusion of waning demand, hiding the deliberate decision that caused it. Similarly, valuing cost-comparability over sustainability and origin rebrands local actors as niche cases rather than a model to follow. This means that the relative silence of ‘local wisdom’ is an outcome of how truth is organised. Place-based reform promised to ‘reactivate’ local/minor

knowledges but as our findings underline, the metric and procedural architecture often reinstates abstraction and comparability as the ‘currency’ of credibility, a tendency amplified by recent directionality around sustainability imposed by national and EU imperatives. Seen through Foucault’s lens, we contribute to the literature on governance, more explicitly multi-level governance, by gaining an understanding of how power operates not only through force but through assemblages of institutions, procedures, and techniques to shape behaviour and align subjects to state objectives, we can see policy around food systems transformations in a light that rather than enables the spread and empowerment of local knowledges to inhabit broader suitability transitions in fact created border and boundaries to action. A governance perspective on food systems is not completely novel (see Nally, 2011), neither in sustainability transitions studies (Gailing, 2016), but by unpacking the various channels through which local knowledge interacts with higher levels of policy and governance we expose the mismatches and subjugations that may lead to impactful and practical solutions to sustainability challenges being buried or side-lined in a hierarchical structure.

6. Conclusions

Our study of local efforts to transform local food systems towards more sustainable development modes in two Swedish regions highlights the central role of local knowledge. It shows that the positioning of local knowledge within governance structures significantly shapes what kind of responses can emerge, diffuse, and potentially scale. Consequently, this calls for close examination how knowledge and power intersect and how certain forms of expertise are elevated while others marginalised. In this study, we investigated the dynamics that shape how and why local actors, and their knowledge gets dispossessed and de-prioritised within multi-level governance frameworks of sustainability transitions. We contribute theoretically by unpacking a Foucauldian perspective on the knowledge-power nexus in relation to transformation processes in a multi-level governance context. This helps us to understand the processes through which concrete local knowledge with transformative potential develops and is mobilised, becomes governed, ranked and at times subjugated and dispossessed.

Our analysis show that local actors do indeed hold knowledge with transformative potential. This knowledge is embedded in practice experience, ecological understanding, food-processing skills, market awareness, procurement competence and relational work with consumers, schools and communities. It is locally grounded yet forward-looking, oriented toward resilience, waste reduction, experimentation and community-based innovation. They constate necessary building blocks for imagining and enacting alternative food futures. We also show that transformative knowledge is produced through practice meaning it evolves through trial and error, peer exchange, collaborative networks, adaptive problem-solving and the continuous refinement of routines. Local knowledge becomes transformative because it is tested, shared and validated through doing. However, our findings also reveal that this knowledge is systematically marginalised. Across our cases, we saw how formal expertise, evaluative tools and institutional logics define what counts as credible knowledge, how centralised infrastructures, concentrated retail power or administrative frameworks restrict the possibilities for local practices to scale and how dominant narratives narrow the public space within which sustainability arguments can be made.

Theoretically, our findings underline that sustainability transitions are fundamentally knowledge-power processes: struggles over epistemic authority in which the power to define what counts as ‘valid’ knowledge shapes the very field of possible action. Rather than treating local knowledge as peripheral, our analysis shows that practice-based, situated and relational forms of knowing are central to how transitions unfold, offering much of the system’s transformative potential through doing, adapting and experimenting. At the same time, the marginalisation of this knowledge is not only institutional but also

spatial, embedded in infrastructures, market concentrations, regulatory regimes and discursive hierarchies that govern where and how knowledge can travel. Against this background, our findings also point to concrete ways in which such practice-based knowledge can drive transformation, specifically by mobilising the collective energies of local/regional agents of change. This involves aligning the supply-side skills of farmers and producers experimenting with alternative proteins (such as grey peas) with the demand-side purchasing power of municipalities and health boards to create leverage for scaling more plant-rich diets. In doing so, this pathway harnesses directionality and subsidiary to move beyond the conventional opposition between top-down and bottom-up approaches, echoing arguments made by Grillitsch, Coenen and Morgan (2025) for regional policy and Morgan (2026) for public food systems.

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