The limited contribution of local food policies in food resilience: The case of French Territorial Food Projects

A helyi élelmiszerprojektek korlátozott hozzájárulása az élelmiszer-rugalmassághoz: A francia Területi Élelmiszerprojektek esete

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KEYWORDS: resilience; food systems; food; local politics; France

ABSTRACT: In the context of multiple crises (environmental, health, conflict...) at different scales affecting food systems, i.e. the social-ecological systems within which humans organize themselves to obtain and consume their food, this article examines how local food policies relay a vision centered on food resilience implemented at the scale of international food policies and enable its application. The concept of resilience is currently increasingly used to investigate how food systems operate. This concept highlights a system's ability to maintain its functions despite disturbances, and scholars identify different types of resilience (robustness, recovery, reorientation). At various levels, calls for making food systems more resilient and sustainable appear, particularly since the Covid-19 crisis, which highlighted the vulnerability of many food systems to the risk of supply disruptions. However, what players and what schemes and initiatives might reinforce the resilience of food systems? Using the case of Territorial Food Projects, which are French voluntary local food policies, we answer the following questions: do local food policies aim to and contribute to strengthening food resilience? If so, what forms of resilience prevail and what type of food systems do they reinforce? We set up our survey in the Nouvelle Aquitaine region, which is a powerful agricultural region on a French and European scale. Our qualitative survey methodology is based on semi-structured interviews with 25 regional food project coordinators in the Nouvelle-Aquitaine region, and on participant observation. We carry out a qualitative analysis of our data, based on a resilience analysis grid developed from the scientific literature, in order to identify the vulnerability factors to which the studied Territorial Food projects aim to respond, the extent to which the objectives and actions underway are meeting the challenges, and what type of resilience they target. The results section of the paper demonstrates that French local food policies can help to strengthen resilience factors in local agriculture in an indirect way. However, they do not enable in-depth, long-term transformation of food systems, due to limited resources and an approach to resilience solely from the angle of robustness and recovery in the face of disruption. In discussion, we emphasize the importance of implementing adaptive and reflexive governance based on territorial integration at different scales, to support the profound reorientation of food systems towards more justice and democracy.

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Kulcsszavak: reziliencia; élelmiszerrendszerek; élelmiszer; helyi politikák; Franciaország

Ez a tanulmány azt vizsgálja, hogy a helyi élelmiszerpolitikák hogyan közvetítik az élelmiszer-reziliencia központi szerepét hangsúlyozó víziót, amelyet a nemzetközi élelmiszerpolitikák szintjén alkalmaznak, és hogyan teszik lehetővé annak gyakorlati megvalósítását, különböző léptékű válságok (környezeti, egészségügyi, konfliktusok stb.) közepette, amelyek hatással vannak az élelmiszerrendszerekre – vagyis azokra a társadalmi-ökológiai rendszerekre, amelyekben az emberek szerveződnek az élelmiszer megszerzése és fogyasztása érdekében.

A reziliencia fogalmát egyre gyakrabban használják az élelmiszerrendszerek működésének vizsgálatára. Ez a koncepció egy rendszer azon képességét emeli ki, hogy zavarok ellenére is fenntartsa működését. A kutatók különböző típusú rezilienciát azonosítanak (pl. robusztusság, helyreállás, újraorientáció). Különböző szinteken egyre több felhívás érkezik az élelmiszerrendszerek reziliensebbé és fenntarthatóbbá tételére, különösen a Covid–19-válság óta, amely rávilágított számos élelmiszerrendszer sebezhetőségére az ellátási zavarokkal szemben.

Felmerül azonban a kérdés: milyen szereplők, milyen mechanizmusok és kezdeményezések erősíthetik az élelmiszerrendszerek rezilienciáját? A válasz kereséséhez a francia önkéntes helyi élelmiszerpolitikák közé tartozó Területi Élelmiszerprojektek (Projets Alimentaires Territoriaux) példáját vizsgáljuk. Két fő kérdésre összpontosítunk: vajon a helyi élelmiszerpolitikák valóban törekszenek-e az élelmiszer-reziliencia erősítésére, és ha igen, milyen típusú rezilienciát támogatnak, valamint milyen típusú élelmiszerrendszereket erősítenek?

Kutatásunkat Új-Aquitaine régióban végeztük, amely Franciaország és Európa egyik meghatározó mezőgazdasági térsége. Minőségi kutatási módszertanunk félig strukturált interjúkra épül, amelyeket 25 regionális élelmiszerprojekt-koordinátorral készítettünk az Új-Aquitaine régióban, valamint résztvevő megfigyelésen alapul. Az adatok elemzéséhez egy rezilienciaelemzési keretrendszert alkalmaztunk, amelyet a tudományos szakirodalom alapján dolgoztunk ki. Ennek segítségével azonosítottuk azokat a sebezhetőségi tényezőket, amelyekre a vizsgált Területi Élelmiszerprojektek reagálni kívánnak, valamint értékeltük, hogy az általuk kitűzött célok és megvalósított intézkedések milyen mértékben felelnek meg ezeknek a kihívásoknak, és milyen típusú rezilienciát céloznak meg.

Eredményeink azt mutatják, hogy a francia helyi élelmiszerpolitikák közvetett módon hozzájárulhatnak a helyi mezőgazdaság rezilienciafaktorainak erősítéséhez. Ugyanakkor nem teszik lehetővé az élelmiszerrendszerek mélyreható, hosszú távú átalakítását, mivel korlátozott erőforrásokkal rendelkeznek, és a rezilienciát kizárólag a robusztusság és a helyreállás szempontjából közelítik meg.

Tanulmányunk az adaptív és reflexív kormányzás fontosságára hívja fel a figyelmet, amely területi szinten több léptékben integrálódik. Ez elengedhetetlen az élelmiszerrendszerek mélyreható újraorientációjának támogatásához, egy igazságosabb és demokratikusabb élelmiszerpolitika megvalósítása érdekében.

Introduction

Current globalized food systems, i.e. the social-ecological systems within which humans organize themselves to obtain and consume their food (Malassis 1994; Ericksen 2008), have been denounced as being responsible for a range of multiple environmental degradations (biodiversity erosion, climate change, water and soil quality) and for reinforcing social and economic inequalities across the regions (Díaz et al. 2019; Pörtner et al. 2022). Numerous studies highlight the lack of sustainability of these systems (FAO 2019; Willett et al. 2019; Campbell et al. 2017; Springmann et al. 2018). Moreover, food security, i.e. "the situation in which all human beings have, at all times, physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life" (World Food Summit 1996), is ensured neither on a global scale, nor on national and local scales (Bricas et al., 2021). Furthermore, food systems face a combination of crises (environmental, health, conflict...) which compromise their ability to provide food over time, such as Covid-19 in 2020 (Hawkes et al. 2022; Läderach et al. 2021; Van der Ploeg 2020; Gundersen et al. 2021; Arndt et al. 2023). These findings underline the urgency of transformative changes in the structuring and purposes of food systems (Webb et al. 2020).

In this context, international institutions elaborate a neo-productivist discourse on agriculture and food, focused on increasing and intensifying production in order to feed a growing world population (Duncan 2015; Fouilleux et al. 2017). In Europe and in France particularly, this discourse is unfolding in connection with the growing use of the concept of food resilience, associated with production objectives and the strengthening of food autonomy (Béné 2020; Becerril Nito 2023; Lamine et al. 2024). These international and national objectives need to translate into local food policies and strategies. In France, a major instrument of national agricultural and food policies is the Territorial Food Projects (TFP). Since their creation in 2014 by the Law n° 2014-1170 named "Future for Agriculture, Food and Forest" (LOI n°2014-1170 du 13 octobre 2014), TFPs have been intended to bring together food system stakeholders at a local level, in order to develop agriculture and food quality locally (Banzo et al. 2022; Guillot et Blatrix 2021). However, the change of scale in the impact of TFPs, between, on the one hand, actions carried out on a local scale as part of their historical mission, and, on the other, the recent objective of food resilience on a national scale, is not self-evident and needs to be examined (Ugaglia et al. 2021).

This article analyzes the way in which local food policies relay a discourse centered on food resilience at the international level and enable its implementation. Based on the case of French TFPs, we answer the following questions: do local food policies aim to strengthen food resilience? To what extent do they help to do so, at what scale? What are the predominant types of resilience and their effects on food systems?

Analyzing local food policies from a resilience perspective: a research front

Resilience of food systems: between adaptation and transformation

Since Holling's pioneering research (Holling 1973), the concept of resilience came to characterize not only ecological systems, but also to a wide range of complex socio-ecosystems (Adger 2006; Folke 2006). From this perspective, resilience was increasingly used to investigate how food systems operated. Since the 2000s, scientific work has initially focused on case studies of public policies in the Global South, with a particular emphasis on agricultural production (Pingali et al. 2005; Alinovi et al. 2008). Subsequently, other works aimed to develop a systemic approach, supported by a multi-scale and multi-level analysis of the interactions between different processes and different actors within food systems (Béné et al. 2012). While multiple definitions of the concept of resilience exist in the scientific literature, recent work agrees around a functionalist approach to resilience, based on approaches developed in ecology and engineering sciences (Walker et al. 2009; Bousquet et al. 2016). Indeed, maintaining the functions of a system despite disturbances seems to be the widely recognized definition of resilience on an international scale (Werners et al. 2021). Resilience thus relates closely to the notion of vulnerability, defined as the degree to which a system is at risk of suffering the negative effects of certain disturbances (Parry et al. 2007). Vulnerability depends on the character, magnitude and rate of change to which a system is exposed, as well as its sensitivity and capacity to respond to disturbance. Disruptions can be both sudden (referred to as shocks), taking the form of extreme climatic events (storms, floods, hail, etc.) or health, geopolitical and economic crises, or they can unfold gradually over time (referred to as gradual disruptions, or stress), taking the form of long-term climate change (progressive average rise in temperatures) (Hamilton et al. 2020). These disturbances call for adapted responses in the short, medium and long term (Foster 2006).

Along these lines, a range of studies point to the existence of different types of resilience and responses in the face of disturbance (Zurek et al. 2022). In this regard, Tendall et al. (Tendall et al. 2015) shows that the resilience of food systems has three main forms: robustness in the face of disturbance, recovery, or reorientation. Robustness defines the ability of a system to endure a disturbance without being affected by it. Recovery refers to a food system's ability to return to its initial and pre-disturbance operating state, after a disturbance. Lastly, reorientation refers to a system's ability to transform its functioning and purposes in the event of disturbances. Numerous works studied the diversity of factors likely to strengthen this capacity and thus highlighted a set of characteristics that can serve as levers to strengthen the resilience of agri-food systems (Cabell, Oelofse 2012; Biggs et al. 2015), including

connectivity, diversity, anticipation and self-organization. Types of resilience thus question the extent to which food systems adapt or transform (Wilson et al. 2020). Adaptation defines a transition based either on adaptation of activities and practices within the food system (adaptation), whereas food system transformation is based on a profound change of the objectives and relationships between its components (Barnes et al. 2020). A recent proposal for the profound transformation of food systems is the framework of just transitions (Tribaldos et Kortetmäki 2022), which renews transition approaches historically anchored in the sustainability framework (Hebinck et al. 2021). The just transition of food systems is therefore an approach to a strong reorientation of food systems based on the pursuit of social justice, equity and inclusion as key objectives (Agyeman et al. 2016).

Strong links between resilience, food security, productivity

However, studies on the resilience of food systems show that the definition of the functions to maintain, as well as the responses to disturbances, vary in time and space, and depend on the actors who develop them (Zurek et al. 2022). Many debates relate to resilience approaches in response to recent crises, in particular the Covid-19 pandemic and the Russian-Ukrainian conflict, which have disrupted global food chains and questioned the food supply of many regions (Gundersen et al. 2021; Arndt et al. 2023). In Europe, research aims to characterize the foundations and modalities of food policies and strategies for resilience, and supporting the development of these strategies (Jones et al. 2022; Ingram et al. 2023).

Applied to food systems, resilience is most often defined as the ability of a food system to provide sufficient, appropriate and accessible food for all, despite disruptions (Tendall et al. 2015). Many authors and international institutions thus postulate that food security is the primary function of food systems to maintain at all costs (Upton et al. 2016). From this perspective, applying resilience to food security issues can lead to the question of modes of production, processing and consumption taking a back seat, which goes hand in hand with the invisibilization of ecological issues (Lamine et al. 2024). However, some stakeholders, particularly those from civil society, value other functions of food systems as priorities. For example, one of the alternatives formulated to food security is food sovereignty, understood as the right of local populations to control their own food systems, including markets, ecological resources, food crops and modes of production (Wittman 2011). Local and international activist movements supported this approach, the best known of which is Via Campesina (Wittman 2009; Calvário et Desmarais 2023).

The literature shows the recent tendency of many international and national food policies to aim at strengthening food resilience, by coupling this

objective with food security, in order to increase food production at different scales. Indeed, it points to the fact that the discourse on food security renews itself in a strong productivist perspective (Duncan 2015; Fouilleux et al. 2017), in a context of demographic increase on a global scale, revived by the context of the global Covid-19 pandemic in 2020, which questioned the food supply of many territories (Rastoin 2020). In the wake of the Covid-19 pandemic, many governments focused their policies on the resilience and autonomy of food systems, thus helping to strengthen the links between resilience and food security, based on a productivist approach. This is the case in Europe and France, where the orientation of general policy and food and agricultural policy framings since 2020 centers mainly on the coupled objectives of food resilience and productivity, as evidenced, for example, by France's agricultural orientation bill adopted on first reading in 2024 (Projet de loi d'orientation... 2024; Becerril Nito 2023; Lamine et al. 2024). What's more, the boundaries between the concepts of food security, resilience and sovereignty can blur, depending on the actors who mobilize these terms. In France, with the creation of the Ministry of Agriculture and Food Sovereignty and recent government publications on the national agricultural and food situation, the concept of sovereignty takes on a food production approach only, and less in a democratic and governance perspective (Becerril Nito 2023). In this context, national and international discussions and policies on resilience tend to focus on the robustness and recovery of current food systems in the face of crises and shocks, in order to reinforce an already existing productivist agricultural and food system, without aiming at a profound reorientation of the organization and purpose of these systems (Zurek et al. 2022).

The role of local policies in food system resilience

While recent studies on the resilience of food systems focus mainly on international and national policies, local policies and private players also have a role to play in food resilience in the face of multiple disturbances. It has been showed with studies on resilience in agriculture regarding the role of organic farmers (Perrin et al. 2020), and on the capacity of local initiatives and local food systems to strengthen the resilience and sustainability of territories (Lamine 2015). This was also proven during the covid-19 pandemic, where local players demonstrated their ability to strengthen territorial solidarity and respond to food supply difficulties on an ad hoc basis (Tarra et al. 2021; Córdoba et al. 2021; Nemes et al. 2021). In the context of the re-emergence of food in urban agenda, a growing body of literature on urban food policies emerged, with food security as a main goal (Sonnino et al. 2014), in the line of Milan Urban Food Policy Pact (Moragues-Faus 2021). However, few studies examine the way in which the objective of resilience, promoted at international

level, is echoed and translated at local level, in the capacity of local actors and policies to reorient food systems, at different spatial and temporal scales (Ugaglia et al. 2021).

Focusing on the local level then questions the ability of local actors to transform food systems. Governance has thus been highlighted as a key factor for the sustainability of food systems (Zurek et al. 2018; Jacobi et al. 2020), insofar as the transformation of food systems cannot rely solely on understanding the organization of food systems based on scientific studies or even technological changes, but is indeed a social and political challenge (Leeuwis et al. 2021). In this sense, a number of properties of food governance in order to foster the transformation of food systems had been proposed, such as the possibility of creating new relationships and networks and supporting a diversity of innovative initiatives on the ground (Leeuwis et al. 2021), and the implementation of integrated agro-food policies aiming at food sovereignty, based on reflexive and adaptive governance based on territorial integration (López-García et al. 2024), giving priority to social and ecological issues (Hospes and Brons 2016). However, the literature reveals the uneven ability of local players worldwide to implement food policies locally (Brand et al. 2019), notably due to the weight of supra-national agricultural policies (Ramos García et al. 2018) and the lack of multi-level governance (López-García et al. 2024).

Faced with varying visions of resilience depending on the actors involved at different scales, the recent literature review on food resilience published by Zurek (Zurek et al. 2022) proposes an analytical framework in order to characterize the issues of food resilience at the scale of territories, and to analyze actors' response strategies. This theoretical framework is structured around four major questions aimed at characterizing food resilience issues (Helfgott 2018). An analysis of resilience based on a characterization of the factors that make food systems vulnerable (resilience to what) thus makes it possible to characterize the shocks and stresses to which food systems react, and is a major starting point for analyzing the appropriateness of the responses provided by local stakeholders (resilience to what, resilience on what timescales). In addition, the analysis of differentiated visions of disturbances and the responses required (resilience from whose point of view) provides an insight into the diversity of visions of the issues at stake, the responses required, and the forms of resilience targeted (Tendall et al. 2015). Authors suggest the importance of studying the articulation between the spatial scales involved in the perception of vulnerability factors on territories and the decision-making and action scales of resilience strategies.

Based on this framework, we ask how local food policies respond in the face of both brutal and gradual disruptions adversely affecting food systems and to what extent do they promote food systems' resilience, and reorient food systems profoundly.

Methods

A case study in Nouvelle-Aquitaine (France)

Our research is set in the French agricultural and food context, characterized by a recent shift in national policies towards food resilience and sovereignty, as part of the 2020 France Relance national plan and the 2022 Social and Economic Resilience Plan aimed at guaranteeing food autonomy and sovereignty at national and European level (Rastoin 2020). These national policies are implemented at various territorial levels, and in particular at the level of the French regions, as is the case in the Nouvelle-Aquitaine region.

Located in southwestern France, the Nouvelle-Aquitaine region is a vast, diversified agricultural region, with a high degree of agricultural specialization: livestock farming in the east and south, viticulture in the west, field crops in the north and south, and fruit growing in the east (Agreste Nouvelle-Aquitaine 2021). While the region's food availability is high, there are threats to regional food security, due to the export orientation of production and major inequalities in local access to food (De Kermel et al. 2022). In addition, numerous markers of the region's vulnerability to environmental crises (submersion, flooding, hail, fire...) threaten the assurance of sustainably feeding the entire population of the region (AcclimaTerra 2018; CESER Nouvelle Aquitaine 2021). Faced with this observation, the region has a transversal transition policy called *Néo Terra* (Néo Terra 2025), adapted into a food policy, the *Pacte Alimentaire.* This regional policy focuses on regional food sovereignty and resilience, through the promotion of local and sustainable food in favor of agro-ecological production and transition (Becerril Nito 2023).

National and regional policies extends to local food policies, including territorial food projects (TFP). TFPs are a French type of food policy councils (Michel et al. 2022). Institutionalized at French national level in 2014, and strongly supported financially at national level particularly following the Covid-19 pandemic, TFPs constitute approaches for public players at various administrative levels (for example communes, intercommunalities and departments) who wish to engage in a state-labeled food approach. The overall objectives of territorial food projects are mostly outlined in the national food program, which is drawn up at national level (Programme national pour l'alimentation 2019-2023 2020). TFPs are most often set up by local governments that respond to a national call for projects, in order to receive funding, in particular for the posts of TFP coordinator and for the actions to be carried out. According to the French Ministry of Agriculture and Food Sovereignty, territorial food projects aim to unite the various players locally around the issue of food, thereby helping to address the social, environmental, economic and health dimensions of the area. TFPs are based on a shared diagnosis of agriculture and food locally and

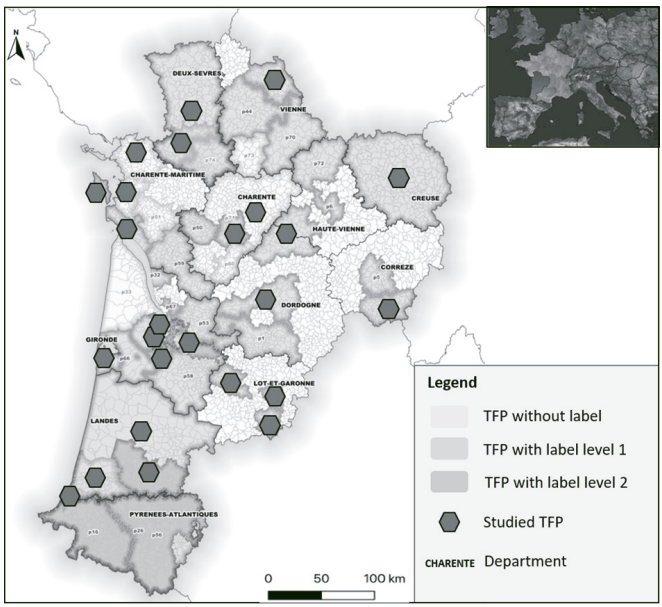
propose operational actions in order to support agroecological transition (Tout savoir... 2024). Thus, TFPs must aim to bring together stakeholders in the food system at territorial level, including farmers, consumers, processing and distribution sector, in order to develop local agriculture and food quality, in particular through food education, support for local agriculture, and the supply of collective catering (Banzo et al. 2022). TFPs shape around the collective development of an action plan structured around strategic objectives deployed via priority axes, themselves translated into actions. While it is possible to identify common objectives for TFPs, as defined by national food policy, there is great diversity at local level between the various TFPs. We can thus identify TFPs that focus mostly on agricultural issues, TFPs that focus on ecological transition issues, and systemic TFPs that encompass social, economic and environmental transition issues at local level (Hazard et al. 2022). So, depending on the priority given to TFP locally, the local sub-objectives and the players involved may vary. By 2023, the Nouvelle-Aquitaine region had thirty-five certified TFPs.

A qualitative methodology to study the place of resilience in French local food policies

We deployed a qualitative methodological protocol based on the analysis of 25 TFPs on the scale of Nouvelle Aquitaine, in 2023 (Figure 1). The study areas reflect the diversity of territories with local food policies. The TFPs studied thus extend to different administrative scales within all the departments making up the region. They include both predominantly rural areas marked by export-oriented farming practices (livestock breeding, field crops, viticulture) and more urban areas characterized by demographic pressure that threatens the future of agricultural resources. They are also emerging in areas where export-oriented production dominates, and where there is competition with the need for food crops. More broadly, the TFPs studied in the Nouvelle-Aquitaine region are developing in territories marked by high vulnerability to climate change, whether on the coasts, particularly affected by submersion and erosion risks, or in the hinterland, where the rise in intensity and frequency of extreme events (hail, drought) is affecting agricultural production (AcclimaTerra 2018). As overall goals, most of the studied TFPs focused on agriculture, and especially agroecological transition and local food, according to the national food program (Hazard et al. 2022).

In order to study the place of resilience within Nouvelle-Aquitaine's TFPs, we used semi-directive interviews supplemented by participant observation, a a study of official documentation. Project documentation consisted of a corpus made up of formalized project action plans and working documents provided by the project coordinators (slideshows, minutes of meetings). In addition, we conducted 25 semi-structured interviews with the 25 food project coordinators

Figure 1: Map of territorial food projects studied in Nouvelle-Aquitaine (France)
Az Új-Aquitaine (Franciaország) területén vizsgált területi élelmiszer-projektek térképe



Source: Authors' construction based on Regional administration 2023. BD TOPO Region Shapefile – R75 Nouvelle-Aquitaine – March 2023. Admin Express – France – April 2023.

(Beaud and Weber 2010) (Table 1). These interviews enabled us to question the interviewees on the TFP's priorities in terms of food strategy, the main actions undertaken, partnerships and difficulties encountered, as well as their conception of food resilience (Annex 1). We fully recorded and transcribed the interviews. Finally, we carried out participant observations on an ad hoc basis in the context of food-related events and the development and monitoring of local and national food projects (Beaud and Weber 2010).

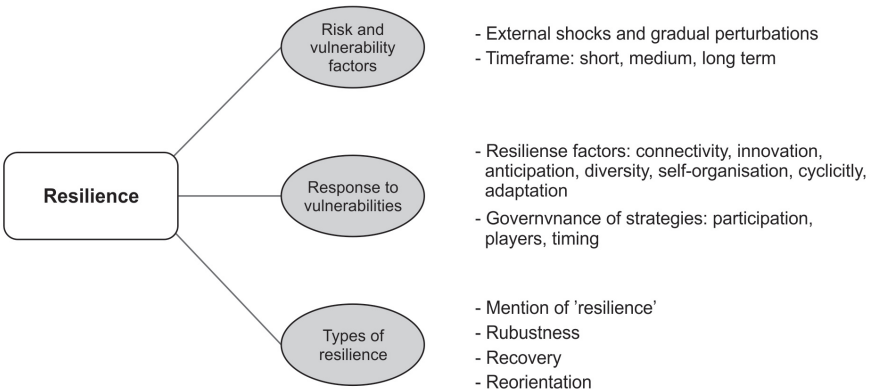
We used a resilience analysis grid, developed from the scientific literature, to analyze our data (Zurek et al. 2022; Biggs et al. 2015; Cabell and Oloefse 2012; Tendall et al. 2015) (Figure 2). The purpose of this grid was first to assess the place occupied by the concept of resilience in the action plans and discourses of the coordinators. Second, it enabled us to identify the vulnerability factors to which the TFPs aim to respond, and to find the resilience factors mobilized by the actions deployed. Finally, it allowed us to characterize the forms of resilience targeted and achieved by the food projects. The analysis thus enabled us to assess the capacity of French local food policies to respond to territorial vulnerabilities, and to determine the place of the resilience objective within TFPs in relation to other issues.

Table 1: List of interviews conducted with territorial food project coordinators
A területi élelmiszerprojektek koordinátoraival készített interjúk listája

Number	*Food project name*	*Localization*	*Scale*
1	Grand Angoulême	Charente	Intermunicipality
2	Département	Charente	Department
3	Ile Oléron	Charente Maritime	Intermunicipality
4	Rochefort	Charente Maritime	Intermunicipality
5	CARA (Royan)	Charente Maritime	Intermunicipality
6	La Rochelle	Charente Maritime	Intermunicipality
7	Dordogne Correz.	Corrèze	Intermunicipality
8	Département	Creuse	Department
9	Niort HVS	Deux Sèvres	Intermunicipality
10	Département	Deux Sèvres	Department
11	Isle en Périgord	Dordogne	Intermunicipality
12	PNR Périgord	Dordogne/HV	Intermunicipality
13	Rive Droite	Gironde	Intermunicipality
14	CC Montesquieu	Gironde	Intermunicipality
15	Entre Deux Mers	Gironde	Intermunicipality
16	BM	Gironde	Intermunicipality
17	Barval	Gironde	Intermunicipality
18	Département	Landes	Department
19	Adour Chalosse Tursan	Landes	Intermunicipality
20	Adour Landes Océanes	Landes	Intermunicipality
21	Agen	Lot-et-Garonne	Intermunicipality
22	Villeneuve sur Lot	Lot-et-Garonne	Intermunicipality
23	Val de Garonne	Lot-et-Garonne	Intermunicipality
24	Grand Châtellerault	Vienne	Intermunicipality
25	Pays Basque	Pyrénées-Atlantiques	Intermunicipality

Source: Authors' construction

Figure 2: Resilience analysis grid
Rezilienciaelemzési keretrendszer



Sources: Authors' construction based on Zurek et al. 2022, Biggs et al. 2015, Cabell, Oloefse 2012, Tendall et al. 2015.

Results

Territorial Food Projects aim primarily to focus on agriculture vulnerabilities

Based on local diagnoses of the food situation, which identify both strengths and weaknesses in the food sector, TFP action plans define the main factors of vulnerability specific to the territory in which they deploy, and justify the way in which they situate operations in this local context. These factors come up frequently in the introductions to the action plans, and emerge from interviews with TFP coordinators. Among these issues, all the coordinators identified the lack of long-term sustainability of agriculture in the area as a priority, particularly in relation to economic and social aspect. As local policies, TFPs identify the specific challenges of the territories they concern, and in this sense, they do not aim to respond to global issues defined on an international or national scale. The TFPs therefore mainly target disruptions to the agricultural economy that are more likely to occur over the long-term evolution of agriculture in the territories, and linked to demographic and productive trends in the territories. In this sense, trends tend to focus on the threat of non-renewal of the agricultural workforce, the lack of market gardening and food crops not dedicated to export, and the lack of productive diversity on the scale of territories. Some sectors also suffer from specific weaknesses, depending on the area, and project coordinators identify these factors, as it is the case of livestock farming, where, in some areas, intensive crops for export are developing to the detriment of extensive production methods and sectors:

> "The decline in cattle numbers is quite worrying for the department. The advantage of dairy cattle is that there are still some left. But there aren't many left. We have 66 livestock farms in the department, so it's very few." (Interview 18)

A second type of disruption identified by the TFPs as a challenge for territories, concerns social issues in access to food. This disruption is also a trend disruption, rather than a sudden shock, and takes the form of an upward trend in food insecurity and the reinforcement of inequalities in access to food on the scale of the TFPs' territories. Social risks in access to food can vary from one area to another, and relate to the isolation of populations and the rise in social insecurity and economic poverty, all of which are consequences of major crises affecting regions on other scales (Covid-19 pandemic, inflation). Many coordinators are aware of these challenges and observe an increase in the number of food aid beneficiaries, and try to structure actions that improve the food supply and reinforce access to quality food products for the population as a whole.

Thirdly, we observed that fewer territorial food projects structure their action plans around responses to vulnerabilities linked to global environmental issues, and in particular to sudden disruptions. However, some food projects coordinators consider these vulnerabilities, also identified in TFP diagnoses; by targeting the way in which these changes manifest themselves in specific territories, as is the case, for example, for the sensitivity to frost or hail of certain crops in Lot-et-Garonne. However, these vulnerabilities are not central. The TFPs that mention the impacts of climate change on the local food system the most include those located in areas most affected by environmental pollution and inequalities, such as the two food projects located in the Deux-Sèvres department, where intensive production methods have a particular impact on water resources. This is also the case for TFPs in the region's coastal areas, such as Charente-Maritime, where many areas face a combination of risks linked to rising sea levels and climate change.

Territorial Food Projects do not explicitly target the resilience of food systems

A first result is that resilience is a low priority in local food strategies. Indeed, an analysis of TFPs action plans reveals that only four projects mention resilience in their action plans. When the word is present, it is because the project coordinators engaged in specific work with stakeholders from agriculture and research-action who explicitly position themselves in favor of food resilience, but this is rather rare. This is the case, for example, of TFP n°1, which states in its introduction that it aims to build a more resilient territorial

food system, relying in particular on the relocation of food chains, support for changes in agricultural practices towards agro-ecology, and the education and involvement of citizens and local elected representatives. Similarly, in the interviews, the players we met rarely use the word resilience. Only eight of the 25 project coordinators interviewed use the term spontaneously. When they do, it has to address, for example, the region's vulnerability to certain disruptions, as in the case of TFP n°3, which spontaneously mentions the effects of the covid-19 pandemic on the reformulation of food security and precariousness issues, and highlights the deployment of a resilient supply chain during this period. This is also the case for a few coordinators, who based the local food strategy on the concept of resilience. However, coordinators who mention the term point out that local elected official make little use of it, and emphasize the need for acculturation to the concept.

A second result is that, although TFP coordinators know the term resilience, it tends not to be seen as the most appropriate for local food issues. When we asked interviewees about the definition of resilience, several approaches emerged. The main approach is resilience as a system's ability to withstand a shock, often perceived as linked to the food system's ability to be productively self-sufficient. However, coordinators associate resilience with the concepts of reorientation of food systems too, but this is less common. Coordinators said that the reorientation of food systems seemed essential to them, and that is why they preferred to use the term transition, rather than the term resilience, which in their view is more associated in common parlance with resistance to shocks:

> "The food transition is about getting all the players around the table, companies, citizens, etc., to see together how we can build models that make us question what we've done, the impacts, and imagine more positive solutions tomorrow for our environment, in favor of the climate, etc. (...) Today, we have to ask ourselves how we can make the production and consumption model evolve." (Interview 25)

Thirdly, although coordinators and action plans make little mention of resilience as a framework, the actions implemented by TFPs can act as levers to activate specific resilience factors. Indeed, TFP actions aim to strengthen networks and links between local stakeholders, thereby enhancing connectivity, for example through the organization of public meetings and the running of thematic groups as part of the process of drawing up and running the action plan. Moreover, several TFP created database of producers and are working to bring players together in order to relocate catering supply channels. This connectivity can also develop on a wider administrative scale, departmental and interdepartmental within the Nouvelle-Aquitaine region, even if this is rarer, as

in the case of PAT n°16, which sets up cooperation contracts with rural territories:

> "In the president's roadmap there is the implementation of cooperation contracts. They're called collection contracts, and we're trying to do as many as possible with neighboring territories, preferably in Gironde. There are some, but not with all territories." (Interview 16)

In addition, TFP deploy actions in order to develop supply chains, support farm installation and assist project leaders in responding to the disruptive trends of local agriculture. This tend to develop productive diversity in the region, and to strengthen the region's capacity for innovation and adaptation to ongoing climate change, all of which are factors that can help local food systems to anticipate and adapt to current and future disruptions.

Resilience as a reorientation of food systems, beyond the scope of Territorial Food Projects

Our analysis shows that the limited resources of TFPs and governance issues restrict the deployment of action plans, and do not allow them to transform local food systems in depth and over the long term. Indeed, the interviews highlight the limited resources available to local food policies. Thus, TFPs can take action in specific topics, particularly short-distance supply chains, food education and catering supplies. However, faced with the major challenges of improving access to food and implementing the agro-ecological transition, TFPs do not necessarily have the legal and financial levers at their disposal to act effectively. In particular, the inability of communal and inter-communal levels to deploy investments for large-scale actions on departmental and inter-departmental spatial scales is underlined:

> "We have a food project that doesn't necessarily contain actions involving major investments, but it does contain quite a few actions within our reach that we think we can undertake in a sustainable way. We identified 40 types of modest, accessible actions, and I think that this gives our food project a high degree of practicality. Nevertheless, looking after the PAT is only a proportion of my personal time, and I have other things to do. I am far from being full-time on the food project. Therefore, it is a residual part of my time. So we are not getting very far, and our capacity for action to be effective and do a lot with little means is not very great." (Interview 11).

The weakness of local legislative power and resources and of inter-territorial cooperation and the lack of shared governance locally reinforce the failure of TFPs to deploy actions beyond a very specific local scale, and limit their capacity to deploy on a larger spatial scale. This is mainly due to the lack of involvement of certain players in food systems such as distribution and processing within TFPs, and to the low level of mobilization of citizens.

Overall, food project coordinators do not consider TFP as strong levers for sustainable reorientation of food systems, whether at local, regional or national level. On the one hand, only a few actions come to an evaluation, so their effects are not well known. On the other hand, project coordinators generally emphasize the lack of capacity of TFPs to react to sudden shocks. This is particularly apparent in the analysis of TFP contributions to the Covid-19 pandemic, during which most of the food projects had no dedicated action. When TFPs were able to provide responses during the Covid-19 pandemic, it appears that these were short-lived, and did not lead to a profound and lasting reorientation of the local food system over time. Indeed, the interviews reveal a widely shared criticism of the responses made during the Covid-19 pandemic, highlighting a temporary change in consumption practices in particular, followed by a return to normal from 2023 onwards. This is the case, for example, with TFP no. 4, where the coordinator carried out actions to increase people's access to local food, but then it stopped afterwards. The account given of the adaptation of practices at the time of the crisis, then a return to pre-disruption practices, in a context of ever-increasing food insecurity following the pandemic, underlines the dominance and inadequacy of resilience strategies based on recovery.

Lastly, coordinators point to the tensions that exist at territorial level, which limit the ability of TFPs to reorient food systems. The solutions to certain crises adopted by the players tend to make the system robust in the face of shocks, rather than radically transforming it, particularly in the direction of agro-ecological transition.

Discussion: the questioned links between resilience, governance and just transition of food systems

Coherence between local food policies and national agricultural issues

Our study shows that French local food policies focus on responding to gradual disruptions affecting local food systems. In this respect, Territorial Food Projects tend to target stresses affecting food systems rather than shocks, and thus aim to act on long- and medium-term issues rather than short-term ones (Zurek et al. 2022). While at first glance local food policies target territorial

economic and production issues, it appears that these issues are widespread and correspond to national trends, such as the increasing fragility of agriculture and rising inequalities in access to food. Indeed, the decline in the number of farmers, the difficulties associated with farm takeovers and transfers, and the concentration of farmland are not only local trends, but more broadly national ones, observed and documented throughout France (Purseigle, Hervieu 2023). Similarly, the upward trend in food insecurity in Nouvelle-Aquitaine since the covid-19 pandemic is not an isolated case, and concerns the whole of France (De Kermel et al. 2022; Bléhaut, Gressier 2023).

In the final analysis, these elements demonstrate the potential of local policies to target national trends, rather than focusing solely on micro-scale issues. One factor explaining the link between local and national levels is that national funding bodies encourage local food projects to include certain types of issues identified at national level, particularly production issues, in order to obtain funding for food projects (Guillot, Blatrix 2021). In this sense, the link between actions carried out at local level and national trends involves the deployment of tools and actions at appropriate scales, depending on the manifestation of local issues.

However, these findings apply to trend disturbances, both national and local, but not to sudden disturbances that can affect food systems, whether at national or local level. Our results show that local food policies are not crisis exit tools, and are not equipped to respond to sudden shocks, which has been confirmed by other studies in other geographical areas in France (Bréger, Bodiguel 2023). On the other hand, these policies can enable territories and food systems to develop levers to deal with the medium- and long-term consequences of crises. In this respect, while local policies cannot provide emergency, short-term solutions to crises, they can, in conjunction with other tools, aim to respond to the longer-term effects of crises. Responses to sudden disruptions therefore ultimately involve long-term solutions, and it is within this timeframe that local food policy actions are situated.

Links between resilience approaches and the transformative capacity of local policies

Our results show that the approaches to resilience that dominate the actions implemented by French local food policies are those of robustness and recovery in the face of disruption. Although, unlike national and European policies, local policies make little use of the resilience framework in their official documentation, their actions nevertheless contribute to strengthening specific resilience factors (Biggs et al. 2015; Zurek et al. 2022). However, these resilience factors contribute to a vision of resilience in the sense of robustness and recovery in the face of gradual disruptions, and not so much of the

reorientation of food systems (Tendall et al. 2015). Our study thus highlights the limited capacity of local food policies to reorient food systems at different scales (Zurek et al. 2022), insofar as, like current national agricultural and food policies, local food policies focus above all on maintaining agriculture in territories to strengthen feeding capacity, without thoroughly rediscussing the agricultural model (Ratsoin 2020). Our study thus shows that the priority of local policies lies on the productive level, with an economic perspective, which does not distinguish them from the orientation of agricultural and food policies deployed at national and European levels (Lamine et al. 2024; Becerril-Nito 2023). In this respect, then, local and national policies are not antagonistic, but are part of a common economic and productive logic.

These analyses show that, in the end, local food policies do little to transform food systems (Wilson et al. 2020), despite local players' awareness of the issues. Local policies, with the means at their disposal, can act on certain activities in the food system, such as local agriculture to a certain extent, but fail to redefine the deeper objectives and relationships between functions and actors within the food system (Barnes et al. 2020). In this, our results confirm that in the context of ecological transition and food system transformation, actions deployed at the local scale are not systematically more sustainable and transformative than those deployed at other scales, insofar as they are strongly structured and constrained by logics and policies at higher scales (Born, Purcell 2006).

Food governance as a major lever for transforming food systems: towards a just transition?

Among the factors explaining the limited transformative scope of local food policies, the limitations of local food governance play a key role, since governance lies at the very foundation of local policymaking. Insofar as food governance is a key element in the transformation of food systems (Leeuwis et al. 2021), our results show that at a local food governance that lacks of territorial integration because of weak cooperation and insufficient links between actors and food policies at different spatial scales (López-García et al. 2024), and that is insufficiently adaptive because of a focus primarily on agricultural and production issues and less on food sovereignty and environmental issues (Hospes and Brons 2016), limits the transformative scope of actions. The example of French local food policies, which fail via their actions to reach all populations and food system stakeholders locally, nor to deploy actions beyond their own administrative boundaries, shows the limits of food actions deployed based on incomplete and insufficiently inclusive food governance. This is also shown in previous studies in other European countries as in Spain (López-García et al. 2024). These results confirm that the transformation of food systems cannot be based solely on sectoral advances or

technological breakthroughs that increase agricultural productivity, but rather on the involvement of all stakeholders in the reflection and development of new production and consumption models (Loudiyi et al. 2022). Such stakeholders include civil society who might provide specialist food knowledge (Perrin, Soulard 2014; Wekerle 2004).

The attention paid to governance and the interplay of actors in the resilience of food systems reveals the extent to which transition trajectories carry a risk of perpetuating and reinforcing the productive models already in place, and likely to reproduce social and political inequalities at different scales (Hebinck et al. 2021). A comprehensive approach to resilience to promote food system transformation therefore requires attention to governance issues, and in particular to the power relations and democratic processes at play in food system transition trajectories (Eakin et al. 2017; Anderson 2008). For food systems to be transformed in the direction of a just transition for all, it is essential to establish fair decision-making processes within food systems (Tribaldos et Kortetmäki 2022). As part of the reorientation of food systems, and therefore of a transformative vision of resilience, building the capacities of stakeholders involved in food systems collectively can thus involve transparent and inclusive decision-making processes that provide everyone with an opportunity to be heard, with the shared aim of not reproducing inequalities in the exercise of power within food systems.

Conclusion

In conclusion, the study of the place of resilience in French Territorial Food Projects highlights the limits and difficulties for local food policies in reorienting food systems, and questions the transformative capacity of local levels in favor of systemic transition. The incapacity of local policies to foster the development of a sustainable and fair agricultural system for all thus call into question the place of local public policies and local food governance in the just transition of food systems (Tribaldos, Kortetmäki 2022). The urgency of structuring transformative changes within food systems thus calls for transformations at different territorial levels. On the one hand, issues and resources need to be deployed at national and supranational levels. On the other hand, the establishment of inclusive, reflexive and adaptive food governance at different scales appears essential to make possible the reorientation of food systems in the service of profound transformation towards justice and democracy.

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Annex 1. Interview guide themes and main points of clarification

1. Presentation of the interviewee and his/her responsibilities
2. Main objectives and scope of the actions of the Territorial Food Project (TFP)
   - How did the TFP initiative start? Who took part in it?
   - What are its long- and short-term objectives?
   - What are the main actions identified? Which are already underway?
   - How are these actions financed?
   - Who decided to implement these actions, and what was the decision-making process?
   - Which actors/structures do you interact with to support these objectives and actions?
   - Do you carry out specific actions in collaboration with other territories?
3. Specific characteristics of the region and food and farming issues
   - What issues relating to agriculture and food do you see arising?
   - In your opinion, what are the local needs in terms of agriculture and food?
4. Impact of past and future disruptions on the food system and TFP's ability to respond
   - Do you feel that there have been changes in the area's food situation in recent years?
   - In your opinion, what are the main causes?
   - What role has the TFP played in responding to these changes? What strategies and actions have been put in place, and over what period?
   - How was this decided and organized?
   - Do you feel that the TFP is a relevant tool to deal with existing or future disruptions?
   - What difficulties, if any, did you encounter?
   - What strategies and actions are in place or planned to deal with these potential disruptions? In what areas and over what timescale?
5. Understanding the concept of resilience
   - Does resilience mean anything to you?
   - How would you define it?