How is ‘the local’ framed in UK food system debates?

A review of mainstream and local food sector reports during the Covid-19 pandemic.

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About this report

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Abbreviations

CSA: Community Supported Agriculture

Defra: Department for Environment, Food and Rural Affairs

DFP: Dynamic Food Procurement

DFPNAB: Dynamic Food Procurement National Advisory Board

DPS: Dynamic Purchasing System

EFRA: Committee for Environment Food and Rural Affairs

ELMS: Environmental Land Management Scheme

FFCC: Food, Farming and Countryside Commission

FS: Food System

GFS: Global Food Security

JIT: Just-In-Time

LFS: Local Food System

POST: Parliamentary Office for Science and Technology

SA: Soil Association

SFT: Sustainable Food Trust

SMEs: Small and Medium Size Enterprises

RSPB: Royal Society for the Protection of Birds

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1. Executive summary

The Covid-19 pandemic shook the UK's food system, highlighting differences in long and short supply chains and their ability to respond and cope with disruption. Where long supply chains revealed weakness and suffered from the disruption, especially in the first few weeks of the pandemic, short supply chains stepped up to fill in these gaps and helped the vulnerable. Various reports were published during this time to highlight the relative strengths and weaknesses in supply chains and changes in consumer habits, including from the perspective of local food systems' actors. The pandemic also coincided with the government's release of the Agricultural Transition Plan 2021-2024, as well as the National Food Strategy.

In this report, we review a selection of key documents (evidence papers, reports, manifestos and strategies) published during the pandemic (Spring 2020 - end of 2021) which examine local food chains and the UK food system, including analysis from non-governmental, government, science and industry organisations. We use these materials to assess how the UK's local food sector was framed and understood during the first two years of the pandemic (impacts, responsiveness, adaptability, contribution to system resilience, etc.), and to understand what visions and recommendations were being proposed for the sector going forward. Due to differences in perspective and their approach to the food system and supply chains, we group the organisations who

have published the reports into two main sets of actors: a 'local food movement group' and a 'mainstream food system group', the latter including policy, science and industry.

Our analysis reveals that:

- There is an evident split between those who call for an urgent strategy to create resilience where they posit the food system has failed, and others who claim an existing level of resilience that needs to be strengthened.

- There are significant differences between the local food movement group and mainstream food system group in the way local food is framed, understood and imagined as a pathway for systemic food system resilience and security.

- Central to this difference is how the two groups position local food in the wider UK food system. For the local food movement group, re-localising food supply chains should be a central part of an improved UK food system, a means to provide multi-benefit solutions (sustainable, fair, etc.), and build capacity for resilience. In contrast, the mainstream food system group focuses on how to support the current system, which it sees as largely resilient. The reports from this group emphasised tweaks (such as making better use of new technologies) to buffer the just-in-time system of supply chain organisation.

- In terms of UK food system resilience for the future, and the place of local food within that food future, recommendations from local food movement bodies focused on supporting local food initiatives and short supply chains through funding, infrastructure and skills support. The pandemic was viewed as providing a test of local food resilience, and the initiatives in the main were viewed to have proved their resilient and adaptive capacity. This outcome, these reports concluded, should support further investment in distributed systems, and so is an opportunity to better fund and support the sector.

- The mainstream food system group has a more circumspect approach to future resilience regarding local food, in which the focus is on public procurement and associated technology developments. These are posited as a key way to shorten food

chains, in part framed as a market opportunity for smaller producers to access new markets via local authority anchor institutes.

- The interests of the mainstream and local food groups align around public procurement, which featured prominently in local food movement reports as well as in the mainstream corpus, e.g. in Recommendation 13 of the National Food Strategy (The Plan).

- There is no discussion of 'local food' in Defra's Agricultural Transition Plan 2021-2024, and caution around the concept of 'local' in the National Food Strategy (Part 1), stemming from historical issues over limits to self-sufficiency.

Several examples of innovative local food networks and enterprises now exist across the country [1] beyond dynamic public procurement. Some of these may be less recognised or well known by government bodies. These local food models and innovations (such as local food partnerships, better trading platforms and open networks, buying group models, distribution hubs, etc.) represent important new forms of localised infrastructure and network building, social organisation and models of trading and investment. They highlight actions being taken from the ground-up and work on a variety of scales: e.g. the farm-scale; the town / district scale; the regional scale; the virtual (relational) scale. In order to flourish and support a more resilient, healthy, and secure food future for all, these new forms of local food system organisation need further recognition and support alongside established models and the new, welcome enthusiasm for dynamic procurement investment.

2. Introduction.

Covid-19 radically disrupted food systems globally and locally, prompting discussion about the future of food. As a result, the Covid-19 pandemic prompted a reflection on the state and future of the UK's food system from a number of organisations. There has been a flurry of publications on how the UK's food system was being impacted and how it responded to the crisis, exploring both immediate actions and longer-term changes that would be needed. Some of these publications commented on the resilience of the UK's food system (FS), and also highlighted ways to progress towards greater resilience. The state of 'food security' was also discussed, with different understandings of the term between various FS actors. For example, food security was understood at the individual or household scale in relation to poverty and food access (i.e. 'food insecurity', 'food vulnerability' or 'food poverty') as well as at national scale in relation to population-level food security (i.e. about being able to produce enough food as a nation state). Overall, the publications revealed different aspects of and issues facing the UK's FS. The Covid-19 pandemic also coincided with the publication of the National Food Strategy [2], which took a longer view, mapped out problems with

the FS and set out recommendations for how to progress it for future sustainability and public welfare.

In this report, we present an analysis of relevant publications from Spring 2020 to the end of 2021, which reflected directly or partially on the impact of Covid-19 upon the FS, and with an emphasis on local food chains relative to the wider UK food system. This included interventions from non-governmental, government, science and industry organisations. Organisations which support local food published information to highlight the responses of local growers and retailers to the demand for local food from the public, as supermarket shelves emptied in the first lock-down. These claims are important, but need to be examined alongside other UK food system analysis to give a broader sense of where and how local food actions were perceived and valued. This report aims to do just that. We define 'local food' and the 'local food system' in this report as food produced and processed near to where it is consumed (i.e. geographical) and / or food sold through localised and short food chain retail channels. This may be within a town, district, county or region, and although we do not give definitive distances, it is food sold through more distributed channels that are not part of national or international chains.

In the analysis, we identify a disconnect between local food movement organisations and mainstream government, science and industry bodies both in terms of their perspectives on the issues and food system solutions. Our analysis is selective and purposive but it **reveals significant differences in the way local food is framed, understood and imagined as a pathway for systemic food system resilience and security**.

In writing this report we observe and summarise key differences in how the UK's FS is viewed by different actors, and the differing visions of how it could and should evolve. On the one hand, we see local food movement bodies highlighting the importance of local food as an alternative system. Beyond filling gaps exposed by the Covid-19 pandemic in the mainstream 'Just-In-Time' approach to food provisioning, these bodies present a vision for a fairer and diverse UK FS. In contrast, mainstream food actors describe the UK FS as essentially revealing resilient attributes after an initial

shock. Their approach largely ignores the role of the local food system, and favours incremental changes to the current mainstream UK FS.

We find it striking that **local food has very different framings in the report materials that we compare**. This reveals an on-going tension between local food movement bodies and mainstream actors in the UK. Local food continues to be ignored, at least in some parts of mainstream food system discourse, despite some alignment of interest (particularly in relation to public food procurement). This has not always been the case. It is notable how the Curry Report in 2002 [3], which came out after the 2001 Foot and Mouth crisis, made clear recommendations to shorten food chains and reconnect producers and consumers, with initiatives such as direct marketing chains and new public procurement contracts given serious attention in the report. However, between then and now we have also witnessed moments of local food silence, misunderstanding, or a feeling that local food was 'done' or had its moment, and that we need to be wary of 'local traps' (e.g. the argument that local food could lead to increased food security vulnerability, and even lead to famine, [4, p. 64]). This approach was highly evident in policy statements in the aftermath of the 2007-08 financial crisis, a crisis which seemed to shift the UK policy discourse back to globalisation-linked food security approaches, and a diminishing attention to the Local Food System (LFS) as a more distributed system [4].

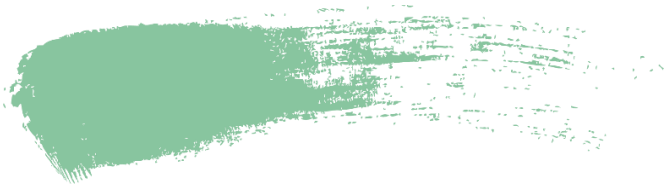
This report proceeds as follows:

- Methods: An overview of the materials and methods used to perform the analysis.
- Results - an analysis of the policy and report materials in two stages:
    - Resilience and Food Security in the UK with Covid-19: Initial assessments of how the UK food system faired in the Covid-19 pandemic;
    - Framing of local food in Covid-19 in the reports: A focus on how local food is framed in the various documents, including definitions of local/localism, statements that indicate the importance or role of local food in responding to the pandemic and supporting evidence and data used and presented.
- Strategies and Recommendations to support UK local food systems: Analysis of recommendations to support local food systems in the UK in the near, medium

and longer-term, including proposals as they emerge across the report sample (mainstream and local food system resources).

- Conclusions: We identified a split between 'local food movement' bodies and the current mainstream food system actors in their understanding of how Covid-19 affected the FS. With regard to the future of the UK FS, we argue there is a need for policymakers and strategic advisors to recognise the value of and give further support to local food actors and their networks.

3. Materials and methods.



This section provides an overview of the materials and methods used to perform the analysis of food system-focused Covid-19 literature, including an overview of the reports themselves, how they were identified, and the process for analysis and write up.

In total, **30 publications were analysed**. Table 1 lists the reports reviewed and **groups them as 'local food movement' or 'mainstream food systems' publications**, the rationale for which was explained earlier. The original motivation was to collate reports from local food organisations as an evidence base to triangulate related work involving interviews with key local food stakeholders. However, it soon became clear, that given the volume of outputs from the sector and sitting alongside other food system commentaries and strategies, a dedicated documentary analysis of a wider food system corpus was warranted, using this wider mix of food system perspectives to contextualise understanding of local food actions and performances (i.e. broaden the narrative framing).

Local food movement and key mainstream food system publications were collated as they appeared from Spring 2020 to December 2021, with several publications

appearing in 2020, partly, it seems, because different organisations felt an urgent need to provide commentary and analysis on the pandemic and its impact on food systems. This produced a rich body of material, with 13 local food movement publications and 17 mainstream publications. We are aware that many other mainstream food system reports and commentaries have emerged during the pandemic, but for the purpose of this exercise we opted to select what we viewed as key publications. We took into account the publications' strategic importance (the two National Food Strategy reports, for example, and key EFRA inquiries, which represent the voices of the wider food system). On the local food side, the analysis is more exhaustive and to our knowledge includes all of the key reports published during the analysis period.

The process of analysis and write up was a follows: first, a member of the research team read through the publication and prepared a set of notes, assessing statements about the resilience of the UK food system during the pandemic, food security, the role of local food (impacts and responses) and future visions. Second, publication summaries were merged to create an annotated bibliography which was coded to identify key themes and messages across the body of publications. Third, the codes were used to prepare comparative tables to assess commonalities and differences. In the analysis, we use the purposefully selected publications from mainstream food system actors to see how local food is presented from this perspective and compared this to analysis of local food publications. As above, **although we identify some similarities in recommendations, we see that there are striking differences which need aligning in government policy for a more resilient future FS**.

Table 1: Local food movement and mainstream food system reports.

Organisation	Publication name(s)	Date published
'Local food movement' publications		
Soil Association 2020a	Response to Covid-19 and food supply chain inquiry	May 2020
Soil Association 2020b	Grow Back Better – A resilience route-map for post-Covid-19 food, farming and land-use	July 2020
Soil Association 2020c	Shortening supply chains – Roads to regional resilience	2020
Soil Association 2020d	Response to public procurement inquiry	Sept. 2020
Sustain	Sustain response to the EFRA inquiry on Food Supply during the Covid-19 coronavirus pandemic	May 2020
Sustain & Sustainable Food Places	Good Food Enterprises – Adapting to the pandemic, one year on	June 2021
Sustain & RSPB 2021a	The Case for Local Food: building better local food systems to benefit society and nature	July 2021
Sustain & RSPB 2021b	The Case for Local Food: Using shorter, farmer-focused supply chains to restore our towns and natural landscapes - Policy Brief	July 2021
FFCC & Local Trust	Food builds community – from crisis to transformation	July 2021
Food Foundation	Covid-19 UK Veg Box Report	April 2020
Dynamic Food Procurement National Advisory Board	Manifesto for a resilient, adaptable and sustainable UK food system – fast lessons from Covid-19	May 2020
Brighton & Hove food partnership	Food buying habits during Covid-19 in Brighton and Hove	July 2020
Farm retail Association	Farm retailers hope new shopping habits will stick	May 2020
'Mainstream food system' publications		
a. Government body publications		
House of Lords	Hungry for Change: fixing the failures in food	July 2020
Department for Environment, Food and Rural Affairs (Defra)	The path to sustainable farming: An agricultural transition plan 2021 to 2024	November 2020
Parliamentary Office of Science & Technology (POST)	A resilient UK food system	June 2020
House of Commons, Environment, Food and Rural Affairs (EFRA) 2021a	Public Sector Procurement of Food	March 2021
House of Commons, EFRA 2021b	Covid-19 and the issues of security in food supply	March 2021
House of Commons, EFRA 2021c	Moving animals across borders	Sept. 2021
National Food Strategy (NFS)	Part One	July 2020
National Food Strategy (NFS)	The Plan	Aug. 2021

Department for Environment, Food and Rural Affairs (Defra)	UK Food Security Report 2021	Dec. 2021
	b. Industry and Science publications	
Waitrose	Food and drink report 2021	2021
Food Standards Agency	Covid-19 Consumer Tracker Waves 1 and 2	June 2020
EIT food	Covid-19 impact on consumer food behaviours in Europe	2020
Global Food Security (GFS) 2020a	Exploring the resilience of the UK food system in a global context – policy brief	2020
Global Food Security (GFS) 2020b	Building back better for increased resilience of the UK food system to future shocks	2020
SCAR expert group	Resilience and transformation	Sept. 2020
Mitchell et al 2020	The impact of Covid-19 on the UK fresh food supply chain	2020
University of Hertfordshire	Food systems transformation: What's in the policy toolbox?	Oct. 2021
TOTAL	**30**	

4. Findings.

4.1 Key messages

We find a consistent message and vision for the future of the UK's FS in the 'local food movement' group. These publications posit that the FS needs to be transformed through a re-localisation and embedding of shorter supply chains. They also map out pathways for achieving this.

In contrast, government bodies speak more positively about the resilience of the UK's FS during Covid-19 and focus more on food security (as a poverty and a supply chain issue) **and unhealthy diets**. The role of local food systems is discussed briefly and infrequently. For example, a report by the House of Lords ('Hungry for Change') asks the government to gather more data on unhealthy diets and vulnerable groups experiencing food poverty, and on limiting fast food outlets around schools [5]; DEFRA talks of farming in the context of the new Environmental Land Management Schemes [6] and POST recommends technology as the solution to issues in the Just-In-Time (JIT) system, lowering environmental impacts and increasing global supply chain transparency [7]. Therefore, government body reports do not propose re-localising supply chains as an overarching framework to increase resilience and sustainability as the organisations mentioned above do. Other reports published during Covid-19 from the retail, industry and science sectors focus on JIT supply chains, and on the

innovation and technology systems needed to further support the mainstream food system. There is little focus on local food as an issue or as a source of new solutions.

The tables in Appendix 1, 2 and 3 respectively summarise how each of the groups frames local food, resilience and food security in their reports. We expand on this in the next section.

4.2 Understandings of food system resilience and food security in the early pandemic

In this section of the report, we explore how the different bodies talk about resilience and food security within the UK's FS. **There is an evident split between those who call for an urgent new strategy to create resilience where they posit the FS has failed, and others who claim an existing level of resilience which needs to be strengthened.** Food security in itself is an interesting term; it is apparent that there are clear differences in what this means to each group, the degree of focus on it, and what achieving food security demands of food systems in the future.

4.2.1 Local food movement publications

Across the reports issued during Covid-19, the Soil Association (SA), Sustain and the RSPB, Sustainable Food Places, the FFCC and the Dynamic Food Procurement (DFP) National Advisory Board emphasise the **lack of resilience in the UK FS**. They suggest that this is due to the JIT process, economies of scale approach and the centralised structure of the mainstream FS. The FFCC, for example, notes that "nine supermarkets control 95% of the retail market" [8]. The fragility of the FS was reported to be evident in the empty supermarket shelves, whilst produce was still in fields needing to be picked by a non-existent workforce (due also to Brexit, the entanglement of the two issues creating notable problems for UK food chains):

> *"The crisis has reanimated discussion of the UK's 'food security', a term that is sometimes conflated with a crude metric of self-sufficiency. Covid-19 has revealed our food security, in its true sense, to be complex and multi-*

faceted, rooted in both our supply infrastructure and domestic production." [9]

The **vulnerability of small and medium size enterprises** (SMEs) is also highlighted, criticising the government for not acting quick enough to support these businesses, who have been put under further pressure from large retailers. Not directly related to Covid-19, the SA point to the technical barriers that SMEs face in accessing public markets, which leads them to remain uncompetitive in comparison to supermarkets.

The SA state that despite struggles with food supply, "One of the most notable responses has been the huge expansion of producers supplying consumers directly" [10, p. 5], and that "resilient local and direct food networks" exist, but need government support to continue beyond Covid-19 [10, p. 1]. In a similar vein, Sustain and the RSPB link resilience to smaller, local enterprises who are more flexible and better able to adapt to changes and shocks. The FFCC echo this, commenting on the importance of existing strong partnerships and communities within regional and local food work. The Food Foundation also talk about such **existing relationships of support providing resilience** in Community Supported Agriculture (CSA) systems; "most CSAs have carried on more or less as usual", with the addition of extra food provision to those most in need through their volunteer network [11, p. 7].

Addressing health issues, the SA go on to say how Covid-19 has highlighted inequalities in socio-economic circumstances, making healthy food even less accessible to those on lower incomes. Their 'Grow back better' report notes that those with obesity have had greater risk from Covid-19, and cite a culture of ultra-processed foods as partly responsible [9].

In summary, the perspectives of local food movement actors and groups are systemic – they concern the whole food system including production, processing, distribution, consumption, and waste. For example, looking to the future, the SA pose the question "how can our national supply chains be regionalised and re-localised?" in an attempt to increase the resilience of the national FS [9, p. 8]. They suggest that government should give better support to farmers and SMEs to allow better access to

markets. Sustain and the RSPB also call for re-localising the food system in order to reduce food insecurity [1].

4.2.2 Mainstream food system publications

4.2.2.1 Governance bodies

Across the reports we reviewed, there is **some agreement that the current FS is unsustainable for the environment, health and economy of the nation**. There are no clear links made between this lack of sustainability and resilience, although it could be assumed that it is implicit.

Defra's UK Food Security report for 2021 [12] frames resilience within the context of domestic production and imports, and in relation to supply chains. Resilience is also discussed in relation to diversity, specifically diversity of supply sources, warning of an "overreliance on one geographical area" and the resilience of the UK's "diverse range of overseas supply sources" [12, p. 83]. This message of resilience through diversity of input supply sources is re-emphasised several times within the report. It further states that a resilient supply chain is able to "recover… and re-orientate…" from disruptions [12, p. 149]. The report states that "the UK is resilient to potential shocks in the food supply chain" and that shocks such as Covid-19 have not caused major problems with food supply, highlighting that despite port closures, food was still imported [12, p. 149]. The report also discusses the balance of domestic vs imported products, noting the relatively good levels of domestic production for major crops and foods (wheat, dairy, meat, etc.), but recognising the dependence on imports for fruit and vegetables. It does not talk specifically about the impact on resilience or food security of SME food producers and retailers in the UK. Organic, agroecological, agroforestry and minimum / no-till systems are not associated directly to the word 'resilience', but recognition is given that these forms of agriculture offer "greater sustainability in the long run" [12, p. 131].

From the same report, Defra defines food security as "a supply chain that is consistently able to deliver adequate quantities of food…" [12, p. 149]. Defra's 'Agricultural Transition Plan' [6] and the POST [7] report do not mention food security,

while it is a strong focus in the House of Lords 'Hungry for Change' report. In the latter, food security is stated to mean "a household or an individual's ability to access food" and as "distinct from discussions on the resilience and continuity of the food supply" [5, p. 15]. The report therefore does not consider current supply chains, or the food system as a whole – it talks at an **individual or household level**. **Food security is** therefore **understood differently depending upon the context and scale of analysis**.

Despite the broad agreement of the FS's lack of sustainability, the EFRA Committee cite the Secretary of State in saying "our lesson from this [pandemic] is that our food supply chain is remarkably resilient" owing to the size, geographic diversity and competitive nature of the industry, and posits the JIT system as adaptable and sophisticated [13, p. 44]. However, it acknowledges that others think differently; Prof Tim Benton is quoted as saying: "our food systems are fragile" [14, p. 42]. In order to increase food security and resilience, EFRA call for the government to create a food security policy and express their hopes that the NFS will address this. They also ask Defra to "assess the extent to which our dependence on multi-national, just-in-time supply chains affects resilience" [13, pp. 42, 45, 51]. **EFRA is therefore concerned with food security from a systemic perspective; however, the solutions they discuss are not systemic.** For example, in another report on animal movement across borders, EFRA recognise the need for more smaller-scale abattoirs [15]. They quote the Sustainable Food Trust in saying "the national network of small local abattoirs is rapidly declining. There are now only around 100 small red meat abattoirs… left in the UK", with the spread of services unequal across the country causing long journey times, animal stress and reduced welfare [16, p. 1]. It further points out that this undermines the government's consultation on 'Improvements to animal welfare in transport' [17]. They quote the UK Abattoir Network in saying that Defra **"should recognise… the smaller-scale abattoirs… vital to an adequate local network, as a strategic national asset and integral to their future visions for sustainable farming and food resilience"** [18, p. 1].

In Defra's report, resilience is mentioned only with regard to farmers' economic welfare. Payment via the Sustainable Farming Incentive (SFI) is seen as a tool for increasing their resilience and that of the environment. The report is focused on new agricultural schemes and pays much less attention to the role of supply chains in the current FS,

and how their structures affect farmers. It does note that the Agriculture Act 2020 will give farmers a fairer position in the supply chain but lacks detail on how exactly this will be implemented, or any role of local SMEs in achieving this [6]. Defra is therefore, in this case at least, focused on a narrow section of the FS, but with an implicit acknowledgement for the need also to consider the role of farming in system-wide solutions.

4.2.2.2 The National Food Strategy (Part One and The Plan)

In the NFS Part One, Henry Dimbleby acknowledges major issues facing the food system (the health crisis, Covid-19, inequality, farmers' difficulties with uncertainties such as climate change and market volatility, etc.). The report provides important analysis of the pandemic and the wider fragilities of the food system. However, it also states that the UK's FS was resilient during the pandemic:

"The fact that, after a wobbly start, there were no serious food shortages is a testament to the flexibility and entrepreneurialism of so many food businesses, and the resilience of the system as a whole." [19, p. 7]

Despite this, the need for "a [food system] that is built upon a resilient, sustainable and humane agriculture sector" is called for [19, p. 17]. It could be assumed that 'humane' here refers both to animal welfare and human wellbeing, as the report discusses increasing both. The report says later that regardless of the resilience that the FS showed, it was undoubtedly shaken, and that we urgently need to do more to ensure food security. Resilience is not discussed in depth throughout the report and is only mentioned a few times, as in the quotes given here.

Food security is discussed mainly on the household or individual scale in relation to poverty and the inability to access healthy food (two chapters covering health and hunger), highlighting that food insecurity rose during the pandemic. It talks less about food security as a production and supply chain issue, as with the government body reports discussed previously. This is distinct to the 'local food movement' bodies for whom this is the main focus. Historical examples and modelling are used to justify globalised trade and imports as a food security strategy. For instance, the Irish potato famine and a future scenario of climate change-induced harvest failures are brought

in as evidence of the need to build food security on globalised trade. Despite the call for imports, the report argues that "trading arrangements [need to] reflect the same values [as the UK]" [19, p. 67].

In Part Two of the NFS, 'The Plan', Dimbleby initially focuses on food insecurity for those in poverty and in particular the need to escape the 'Junk Food Cycle' as the cause of widespread and avoidable health issues such as obesity. A later chapter addresses food security in a different light – in relation to trade and national self-sufficiency. It argues food security is "one of those largely invisible political issues that the public tends not to think about much…" and that its precise meaning is disputed [2, p. 130]. The report gives the following definition:

> *"Food security, as we defined it, is being able to feed the population at a reasonable cost, even in the face of future shocks such as a global pandemic, massive harvest failure, or a general crisis of agricultural productivity caused by climate change." [2, p. 130]*

As in 'Part One', discussion of resilience in 'The Plan' is limited. A section on biodiversity considers the argument for genetic diversity in crops to foster greater resilience to crop failure, when "only 20 species make up 90% of the world's food" [2, p. 18]. The report quotes Tim Lang's 'Feeding Britain' book to draw attention to the need for resilience in all parts of the FS, from production to the security of imports [20], and later notes that "foreign imports underpin our food security […] having a diverse food supply creates resilience" [2, p. 137]. These are important statements, although specific details on how these recommendations in 'The Plan' foster resilience is not provided. What is also missing are any clear statements about the role of local food in relation to resilience. The recognition of the role of LFS is limited to public procurement, the topic of Recommendation 13. This recommendation advocates for supply chain innovations such as dynamic ordering systems to shorten food chains and support SME access to food markets.

In summary, **we observe a clear difference between the scale at which food security is considered an issue, with the local food groups focusing on the food system level,**

and the mainstream food system group focusing on the individual and household level.

4.2.2.3 Industry and science publications

Industry reports were focused on specific issues rather than the wider food system. For example, they discussed the results of consumer surveys and on the need to change food habits. They do however talk about the shift to more local food buying habits (e.g. Waitrose [21] and the Farm Retail Association [22]). The University of Hertfordshire's report on food policy highlights gaps in policy for transformation of the food system (although not explicit, transformation appears to be directed towards food security and resilience) [23].

The '5th SCAR Foresight Exercise Expert Group - Natural resources and food systems' report highlights the effect of Covid-19 on the FS across Europe, and recognises that there is a need for resilience, suggesting it is not already inherent [24]. Greater diversity is posited as a solution for greater resilience, although the pathway to this is seemingly one-track – through technological innovation. The Global Food Security (GFS) Programme discusses "building back better" for greater resilience and discusses the potential for more UK horticulture production and shorter supply chains, although this is positioned as a "useful supplement to globalised supply and demand" [25, p. 3].

4.3 Framing local food during the early pandemic

4.3.1 Local food movement publications

This group of publications is centrally concerned with local food as a sector. This is evident when reading some of the titles e.g. 'The Case for Local Food' [1], 'Food Builds Community' [26], 'Shortening Supply Chains' [27]. The reports evidence the increase in demand for local food in the UK during the pandemic. For example, the Food Foundation reports that "Sales went up by 111% overall during the six weeks from the end of February to mid-April" [11, p. 3]. The smaller box schemes of up to 300 boxes per week grew the most – by an average of 134%. A vast majority of box schemes (82%) also had to implement waiting lists, showing that there is appetite for more locally produced

food [11]. The local food system's ability to be flexible and adapt to the needs of local consumers and communities is seen as evidence of its resilience. Equally, local food systems that did not undergo significant disruption are also seen as resilient, i.e. Community Supported Agriculture (CSA) schemes which were able to "carry on more or less as usual" as "the long-term partnership between producers and members, fundamental to CSAs, has meant a pool of volunteers are available to help…" [11, p. 7].

The FRA is unsurprisingly very positive towards local farm shops, highlighting their quick adaptation through adding extra services and jobs during the pandemic. They postulate them as a "viable alternative to supermarkets" in a new food system [22, p. 2]. The Brighton and Hove Food Partnership also showed how local communities chose to buy and support local food more during the pandemic; "57% of people are spending more in local, independent shops" and "42% of people are spending more on food deliveries from local independents e.g., veg boxes, small grocery shops and food markets", with 69% wanting to continue these habits [28, p. 4].

The reports highlight that this **resilience was not a result of government support**, as the government did not put in place measures to support local food enterprises when they were struggling, especially regarding SMEs. A major ask of these reports is for the government to better support these enterprises, whilst taking note of their embedded resilience (e.g., short supply chains for lower carbon emissions and strong community connections, often using agroecological growing practices) and considering them a vital part of the new sustainable FS.

The Soil Association points to Dynamic Purchasing Systems (DPS) as a way to support local retailers and farmers by giving better access to markets otherwise dominated by a few large retailers. It also promotes the Food for Life programme which is "serving fresh, healthy, sustainable and locally sourced food" and Sustainable Food Places which "develop cross-sector partnerships of local public agencies, businesses, academics and NGOs" as good models to develop [9, p. 28].

'The Case for Local Food' by Sustain and the RSPB brings a useful historical perspective on the issue of framing of local food. Its foreword by Lord Curry notes that his 'Curry Report' from 2002 highlighted the need to re-localise food chains [1]. 'The Case for

Local Food' goes on to discuss local food as beneficial for the environment, biodiversity, economic resilience, jobs markets, and society (building a societal sense of responsibility for the environment). In terms of employment, the report states that "local food outlets create a job for every £46k turnover, which is three times the return on investment of supermarkets… smaller independent outlets could provide a further 200,000 jobs" [1, p. 19]. Local food is defined as food which is produced, processed, sold (by independents or non-multiples) and consumed locally. Local food systems (LFS) are praised for their diversity, and their regeneration of natural resources, as well as for providing access to rewarding jobs and healthy food for all. However, the report makes an important point that not all 'local' food is sustainable. It also recognises the importance of food imports and calls for food trade based on 'fair-trade' principles. A second policy brief on local food by Sustain and the RSPB advocates that:

> *"Investment across the UK in more localised food systems – shorter, more diverse production and supply chains, at meaningful scale and focused on farmers – would deliver widespread economic benefits and foster resilience, recovery, and prosperity. […] local food systems that focus more on opening routes to market for farmers are more likely to source and supply food from agroecological farms, reduce emissions from transport, refrigeration and waste, and support more mixed farming systems. Importantly, as farmers navigate reform of agricultural payment schemes, local food systems that support responsible farming and action for biodiversity and climate can provide vital sources of extra income and stability. Not only this, by creating closer relationships between producers and consumers, local food economies can help foster greater awareness and responsibility for the impacts of the food system." [29, p. 2]*

In their 'Manifesto for a resilient, adaptable and sustainable UK food system', the Dynamic Food Procurement National Advisory Board (DFPNAB) argue that Covid-19 showed that DPS are needed to support food related SMEs. They advocate more government support of DPS roll-out, alongside "a regional food supply chain infrastructure needs to be established for the UK as an immediate priority to mitigate against future crises" [30, p. 6].

The majority of the reports highlighted that SMEs had suffered during the pandemic – losing out to bigger retailers because of the actions taken (or not taken) by the government. DFPNAB state that during Covid-19 SMEs "have been left exposed with no route to market. The barriers to entry for serving the retail grocery market for most of these SMEs are too great to overcome" [30, p. 2]. In their 'Good Food Enterprises' report, Sustain and the RSPB argue that 'good food' SMEs can provide decent jobs, efficient food production and sustainability, including contributing to the Government's Net Zero goals [31].

The FFCC report on the Big Local Programme demonstrates that local communities can come together around food, and that this results in a greater provision of food locally, often to vulnerable people for free [26]. They state that communities have taken the opportunity to change local food system through the Big Local Programme, fostering participation and resilience. They ask government to support local authorities in creating food strategies and community-led partnerships.

4.3.2 Mainstream food system publications

4.3.2.1 Government publications

In these publications, **local food is only briefly mentioned. It is alluded to as a stop-gap for Just-in-Time (JIT) systems; a way to buffer them by supplying food when supply chains become disrupted and food shortages ensue. However, they are not discussed as a strategy for resilience and food security in itself**, in contrast to the local food movement group reports, as highlighted in the section above.

In both National Food Strategy reports, **local food as a strategy to greater food security is briefly considered, and primarily reviews a narrow historical context** of the UK's imports, the Corn Laws and events such as the 'Dig for Victory' campaign and the Irish potato famine. The Irish potato famine is cited as an example in an argument against food security strategies based on autarky and self-sufficiency [19] [2]. The conclusion is that local alone cannot ensure food security, and diversity of food sources are needed. Further to this, diversity in the type of farming and landscape

management is argued for (the 'three-compartment model') as a way to ensure greater food security and resilience in the face of climate change.

'Local' is used 32 times in the first report; however, the majority of uses do not refer to food systems (rather, they refer to local authorities or local businesses and local retail) [19]. Similarly, in 'The Plan', local is used 106 times, but mostly in relation to local authorities and government bodies. The report usefully asks the government to give local authorities greater autonomy and argues for local food strategies [2].

The most direct consideration of local food in the future UK food system is the discussion of a Dynamic Purchasing System (DPS). In Recommendation 13, a trial of a DPS for local food suppliers is referenced as working 'extremely well'. The report recommends that the government "accelerate the roll-out of this dynamic procurement scheme and use its new procurement standards to encourage caterers to try a broader range of suppliers [than the existing small number of dominant suppliers]" [2, p. 161]. This is in line with recommendations from the local food reports reviewed above.

Overall, **although local is mentioned in terms of its potential to contribute to food security and resilience, there is no consideration of transforming FS towards a re-localised, regionalised systems.** This is in contrast to the Soil Association, Sustain and the RSPB, Sustainable Food Places, the FFCC and Food Foundation whose main message is re-localisation at the centre of a more resilient FS.

4.3.2.2 Industry and science publications

The industry and science reports do not discuss local food in any depth, or consider it as a source of a system-wide change towards sustainability or resilience. This is not necessarily a criticism of the reports for not giving more emphasis to local food, but reflects their focus on other food system issues and priorities. The industry reports convey survey results of their customers, for example Waitrose talk about their customers' desire to support British producers more [21]. Science reports briefly comment on local food. For example, the University of Hertfordshire's report on food policy identifies some gaps in policy in relation to local food systems. Some of these gaps are around community projects, increasing the extent of UK horticulture, and

public procurement of local food [23]. The GFS Programme encourages the growth of the UK horticulture sector, but more as a 'supplement' to the global food system, in order to buffer JIT supply chains [25].

4.4 Strategies and recommendations to support UK's local food systems

Some of **the strategies and recommendations from the reports reviewed relate directly to the potential for a future pandemic or further lock-downs, although others present a more holistic FS view for an alternative food future.**

We noted some common themes across both the local food movement group and the mainstream food systems group. These include **the potential of Dynamic Purchasing Systems for use in public procurement and an acknowledgement of the lack of local and regional infrastructure** (most commonly, and in the case of the mainstream food systems group, almost solely concentrated on abattoirs). However, **we have mainly identified differences** between the two groups (local food movement and mainstream food system group). **This centres on the framing of 'local'**, where the local food movement bodies focus on re-localising food supply chains as a central part of the UK FS, arguing that this provides multi-benefit solutions. In contrast, mainstream food actors say that the current system is largely resilient and needs tweaking through new technology. The local FS is seen as one such 'tweak', useful in buffering the current JIT food supply. Table 2 at the end of this section summarises recommendations from the different groups. In the paragraphs that follow we describe in more detail the recommendations and the main focus of each group.

4.4.1 Local food movement publications

The Soil Association maps out a 'ten-year transition to agroecology' as well as focusing on sustainable and healthy diets [9]. It draws upon examples from its own initiatives e.g. Food for Life, Innovative Farmers and Sustainable Food Places. There is a call for the government to build upon these initiatives and make them more accessible. The SA's 'Grow back Better' report recommends significantly reducing chemical inputs and pharmaceuticals (i.e. pesticides, fertilizers and antibiotics) in the farming sector, whilst

investing in UK horticulture to scale up the production of fruits, vegetables, nuts and pulses for more sustainable farming and diets (Table 2). These investments would include farmer and new entrant support through access to land, skills and equipment. It sets ambitious targets for the government: in converting more farms to organic methods – 25% of farmed land by 2030, and in using organic food in Public Procurement (at least 60% organic, as in Denmark.) A National Nature Service to increase employment for young people (e.g. tree planting) is also suggested, creating jobs and funding to implement a National Nature Service. A roll out of the DPS is also called for.

Sustain's EFRA Covid-19 inquiry response gives a substantial list of recommendations to the government [32]. Many of the recommendations are for the government to be more considerate of farmers and growers as well as SMEs in future supply chain planning. The response calls for a Transition Fund for SMEs to help diversify the supply chain in the longer term. Sustain's 'Good Food Enterprises' report recommendations are split into Local government and National government [31]. Local government recommendations are aimed at supporting businesses to thrive through access to markets, grants, infrastructure and creating more jobs, whilst National government asks are for a Green Recovery and Shared Prosperity Fund for investing into Good Food Enterprises. A more specific ask is to review national planning policies and Community Asset Transfer to allow better access to spaces for Good Food Enterprises.

Sustain and the RSPB's 'Case for Local Food' report and policy brief similarly ask for local food economies to be better supported through funding, policy, advice, networking and infrastructure [1]. They ask local government to be strategic in setting up local food partnerships and economics teams. The report and policy brief echo Sustain's Good Food Enterprises report in asking for a UK Shared Prosperity Fund and to for more diversified supply chains with greater SME involvement, as well as for a review of national planning policies (Table 2). A Dynamic Purchasing System expansion to 33% of the country is also called for to support SMEs, again similar to the SA reports (i.e. alliance of shared views and requests). Advisory and training support is also asked for, in line with the new ELMS programme. Sustain and the RSPB are in line with the SA in

asking for county farms (land owned by local authorities to rent out as smallholdings) to be nature friendly and certified organic.

The FFCC 'Food Builds Community' report explores what local communities could do if they were better supported [8]. This includes a section which indicates what this support would entail from the government, from funders, and other actors. This involves developing local authority food strategies as well as funding investment for skills and networking. A 'Beetroot Bond '[1] (every adult and child receiving a card with a monthly dividend to spend on community allocated healthy local food producers and suppliers) or universal income as well as a community wealth model (referencing the Preston model of Community Wealth Building[2]) are also called for (Table 2).

The Food Foundation's Veg Box report asked survey participants what support they need in future and presents these as government recommendations [11]. Again, as in the reports discussed above, it asks for **more investment in skills, equipment and infrastructure as well as a long-term vision for sustainable UK food production**. It asks more specifically for infrastructure to be more available e.g. planning permission for workers accommodation and packing facilities in addition to better software for online ordering.

The Dynamic Food Procurement National Advisory Board splits a short section of recommendations into long, medium and short term [30]. In the long-term, it asks for the implementation of regional infrastructure and awareness and skill building around DPS. In the medium term, it asks for the acceleration of the Future Food Framework in order to improve food security, transparency and provenance, the environment, diets and regional economies. In the short-term, an implementation of a 'lite' version of the Future Food Framework is recommended and asked for (Table 2). In terms of funding, it asks for government to leverage the £2 billion annual public sector food spend to drive the adoption of the balanced scorecard for public sector food procurement.

[1] **Food Farming & Countryside Commission (2019) Our Future in the Land**
[2] **Preston City Council. What is Community Wealth Building? https://www.preston.gov.uk/article/1335/What-is-Community-Wealth-Building-.**

4.4.2 Mainstream food system publications

Supporting local food systems is not an explicit objective of the government bodies' publications reviewed, which instead focus on existing mainstream supply chains. For instance, there is no mention across the reports of the schemes previously discussed in the Local Food Movement group reports, such as Sustainable Food Places and Food for Life. Such schemes create local collaboration and healthy food consumption, and so could help government increase FS resilience and sustainability. As these schemes are not referenced, it could be assumed that government bodies are either not aware of them or not supportive of them. More likely, the lack of attention reflects a focus on mainstream food issues, rather than local, and which fails to recognise the benefits of local food initiatives and the support that they need. Initiatives such as the Innovative Farmers programme and farmer-led research are referred to by Defra [6], indicating that Defra supports farmers in their localities. However, these farmers may not necessarily supply food locally and these reports do not discuss the potential for farmers to localise their supply chains. Organic, agroecological, agroforestry, minimum and no-till systems are referenced as "offering greater sustainability in the long-run" in Defra's Food Security report [12, p. 131]. This is encouraging, but no suggestions are made on how these systems may be implemented more widely, although the new ELMS programme is mentioned briefly in relation to 'land management and environmental services'.

4.4.2.1 Government publications

The Defra 'Agricultural Transition Plan' does not focus on farmers localising food chains per se but speaks mainly about farms as they currently exist (long supply chains) and how they will transition from existing stewardship schemes to the new ELMS programme [6]. The report encourages input from local authorities and organisations in reference to the new entrants' scheme, and the support with access to land: "We want to encourage applications from councils, cooperative and community land organisations, local partnerships, and private and institutional landowners who have innovative ideas and the capability to provide long-term opportunities for talented

new entrants" [6, p. 54]. However, there is no information on whether new entrants will be encouraged to shorten supply chains for local consumption or not.

In the 'Agricultural Transition Plan', local is referred to through Local Nature Recovery Strategies which look to manage land sustainably, but nothing specific is given on local supply chains or local food production as strategies for reducing carbon emissions and increasing biodiversity. Investment in farmer-led innovation is mentioned, which to some degree addresses locality and supply chain issues: "we will use powers in the Agricultural Act 2020 to address market failures that have led to farmers having a weaker position in the supply chain" [6, p. 17]. Beyond this, there appears to be little acknowledgment of the role in supplying healthy food and strengthening food networks that local and small food producers gave during the pandemic, or ways in which to extend and support their efforts for future food sustainability and security. Given that the report was published in November 2020, it could have considered and included reports on the increased demand for local food, which were published earlier in the year (the absence of this recognition is typical within publications by the mainstream food systems group).

Local is spoken about directly in relation to Protected Landscapes, where Defra plans to "provide support to farmers, via National Park Authorities and Areas of Outstanding Natural Beauty bodies, to help grow businesses, create green jobs, enhance biodiversity and invest in infrastructure to attract more diverse visitors to support local economies" [6, p. 44]. However, this consideration for enhancing local economies is not applied to other land uses. Defra's UK Food Security Report 2021 only mentions local in relation to sourcing more local marine protein and in referencing local hay production for livestock feed. It notes that local businesses in the wholesale and retail sectors are part of a 'complex' food system in the UK. The report focuses on 'domestic' production for the UK, and therefore does not focus on the intricacies of more localised production in general or during the pandemic.

The House of Lords 'Hungry for Change' report has very little focus on local food, and mainly asks for better policy around healthy diets and access to food. Where it does mention local, it is in the context of consulting with industry on unhealthy food production and retail: "[a food strategy] must involve active engagement with SMEs

and the catering sector" [5]. It also asks local authorities to limit fast food retailers around schools and more widely, as well as working with them to sell healthier food.

The POST report recommends addressing "the balance between international trade strategies and local food production" and "boosting local production of produce that would otherwise be imported" through subsidising and investing in the UK's horticultural sector and adopting more agroecological practices [7, p. 3]. Investment into SMEs by making more information available for them to use, promote cooperation, and increase consumer understanding of food is also recommended. However, re-establishing local processing infrastructure such as abattoirs is suggested only as a way to "buffer the system in case of future shocks" [7, p. 3]. It also recommends investment in technology such as drones, which we feel may reinforce top-down power in food production. The recommendation to invest in local food here, then, is less pervasive and more as a safeguard to the existing JIT system.

The EFRA Committee report, 'Covid-19 and the issues of security in food supply', recommends that "[Defra] should also be clearer about the difference between resilience and efficiency, and assess the extent to which our dependence on multi-national, just-in-time supply chains affects resilience", which may signal support towards local supply chains, although not explicitly [13, pp. 4, 45, 51]. In a section on shops and supermarkets, EFRA acknowledges that small retailers were vital in ensuring food supply to the public during the pandemic. It then recommends that government ensure they are well supported, such as through better communication for small retailers in using online selling platforms, as well as reviewing whether the relaxation of the competition law disadvantaged them against larger retailers. Whilst EFRA have given these recommendations to the government and acknowledge the role and importance of small producers and SMEs, discussion of the local food sectors' role in resilient, sustainable food systems is limited in the report.

In EFRA's 'Public Sector Procurement of Food' report, there is a call for greater government support for domestic producers to "ensure that public bodies are encouraged to source local, seasonal produce" [33, pp. 19, 25]. It also asks government to "consider the benefits of setting ambitious targets for how much food should be locally and seasonally sourced, how local should be defined and how progress towards

targets will be monitored. Procuring organisations and suppliers will need guidance and support about the practicalities of how to achieve this and the government should consult them" [33, p. 25]. There is a call for support for SMEs through using DPS via a long-term national roll out of the system. This is justified in that "local sourcing can be more cost effective" [33, p. 25]. In EFRA's report on 'Moving animals across borders' they suggest that the Future Farming Resilience Fund could support smaller slaughterhouse businesses and lay out the barriers to new smaller scale slaughterhouses being built. They also suggest that Defra establish a working group to focus on ensuring regulations are suitable for small and medium sized abattoirs [15].

The **National Food Strategy** sets out 14 recommendations to government [2]. Across these recommendations, local food supply chain issues and opportunities do not feature strongly. Competitive support for SMEs against larger retailers, which are more likely to operate in local, short supply chains, is recommended. The recommendation specifically asks for the creation of a National Food System Data Programme for tracking land and farm-gate data, allowing SMEs to better understand their markets (where large retailers already have the capacity to gather data and so are at a competitive advantage). Support for rolling out a Dynamic Purchasing System is given alongside redesigning procurement rules and standards. Local authorities are asked to make a food strategy in partnership with communities, which signals attention towards local supply chains, but details regarding implementation need further clarification. Trialling a 'Community Eatwell Programme' is also recommended through working with communities and their needs, whilst investing in local facilities and infrastructure. Overall, **local food is present in the NFS but not framed as critical and central to a new resilient food system, bar the focus on public procurement and specifically short chain activities via a national roll out of DPS**.

4.4.2.2 Industry and science publications

Industry groups such as Waitrose and the Food Standards Agency report an increase in local food buying and some public desire to continue this trend, but do not give any recommendations. The University of Hertfordshire recommends filling policy food gaps (such as access to land and space to grow and share food within communities),

creating attractive jobs and meeting skill / training needs in the horticulture sector, and changing governance around mapping, measuring and monitoring of procurement to make this more effective [23]. This hints at a more local food system, but is not explicit in talking about re-localisation. The Global Food Strategy Programme is focused on "Applying resilience thinking to the UK food system" [25, p. 9] but does not give recommendations for localising food chains or systems. Similarly, the science reports we reviewed, such as the SCAR Foresight report, do not mention local food, but instead point to the importance of science and technology to building a fairer and healthier food system: "research and innovation can directly offer new ideas, technologies and strategies to achieve each of the three needed transitions. Digital technologies, biotech, social and behavioural studies, new financing and technical innovations" [24, p. 107]. **Such reports do not consider community partnerships, or specific ways in which local food actors need support**.

Table 2: Comparing local food and mainstream food system actor recommendations for future transformation

Organisation	Recommendations	Mechanisms for implementation
Local Food Movement Publications		
Soil Association – Grow back better	Recommendations framed as a 'transition to agroecology', including: transforming livestock systems; increasing organic, trees, farmer-led innovation, soil carbon; scaling up horticulture; reducing ultra-processed diets; increasing education and food chains.	The SA suggests a mix of government funding, regulations, incentives, and targets (e.g. an increase to 25% organic by 2030) public procurement, knowledge sharing / training and education to deliver its recommendations.
Soil Association – response to EFRA Covid-19 inquiry	Recommendations include supporting local producers and an ambition for increasing organic farming.	Create and support supply chains for local producers; give organic targets and a framework to increase organic.
Soil Association - response to public procurement (PP) inquiry	Recommendations include supporting the use of Public Procurement (PP) and regulating against trade which might undermine quality UK produce.	Monitor the use of PP; improve the balanced scorecard use; regulations on quality of procurement relative to cost; increase organic % in PP; incentivise PP; give training and education on PP use; legislate trade deals to keep environment and welfare standards high.
Sustain –response to EFRA Covid-19 inquiry	Recommendations framed as "defending our supply chains",	Asks are for government funding and support for local growers and short supply

	aimed towards local, small-scale growers.	chains; consultation with farmers on their needs.
Sustain & Sustainable Food Places - Good Food Enterprises	Recommendations for both local and national government, aimed at supporting SMEs, local services and short supply chains.	Local government: Flexible funding for 'Good Food Enterprises' (GFEs); creation of 'good food jobs'; increasing supply chains and access to infrastructure and facilities for GFEs. National government: Funding; reviewing national planning regulations to better suit GFEs; research on the benefits of GFEs.
Sustain & the RSPB – 'The Case for Local Food' report & policy brief	Recommendations for local and national government, aimed at supporting an increase in diversity of local SMEs.	Local government: Lead implementation of PP; coordinate, plan and create local food partnerships for farms and retailers; prioritise local food and organic in local enterprises. National government: Increase local partnerships; targets for 10% market share by 2030 for non-multiples; better infrastructure including PP; training; reviewing national planning regulations for local enterprise diversity.
FFCC & Local Trust - Food builds community – from crisis to transformation	Recommendations aimed at supporting community wealth and access to healthy local food.	Funding; community wealth building; knowledge sharing; accessibility to healthy local food; strategies and partnerships for local food.
Food Foundation - Covid-19 UK Veg Box Report	Recommendations are aimed at strategy for local food and supporting local sustainable food businesses.	Long-term vision for local sustainable food; funding and planning regulation reviews for infrastructure; technical support of local food businesses.
Dynamic Food Procurement National Advisory Board - Manifesto for a resilient, adaptable and sustainable UK food system – fast lessons from Covid-19	Recommendations support the growth of Public Procurement and the roll-out of a Dynamic Purchasing System.	Increasing regional infrastructure; education about Dynamic purchasing Systems; create 'Future Food Frameworks'.
Mainstream Food System Actor Publications: Policy		
House of Lords - Hungry for Change: fixing the failures in food	Recommendations are around access to healthier food for those in poverty and children, as well as supporting farmers in transition to Environmental Land Management Schemes.	Data collection and monitoring on a range of issues in food supply including: food insecurity; school meals; food processing; technological solutions for sustainable food production. A range of schemes are suggested to enable healthier diets and stricter regulations on food processing. Support for UK farmers and consultation with them is also recommended.

Department for Environment, Food and Rural Affairs (Defra) - The path to sustainable farming: An agricultural transition plan 2021 to 2024	This report is focused on setting out how farmers will transition to the new Environmental Land Management Schemes and gives planned actions rather than recommendations.	Generally, actions are around giving farmers support through funding, training, access to infrastructure and land as well as to address "market failures". Local actions are mentioned in terms of land access for new entrants and in Protected Landscapes to improve local economies.
Parliamentary Office of Science and Technology (POST) - A resilient UK food system	Recommendations focus on technology to improve a variety of issues in the FS, as well as supporting sustainably grown UK produce.	Technology to address Just-in-Time failures, improve agricultural efficiency, to increase supply chain transparency and support SMEs. They also recommend increasing UK horticulture, agroecology, circular economies & healthier diets.
House of Commons, Environment, Food and Rural Affairs (EFRA) - Public Sector Procurement of Food	Recommendations revolve around standards and regulations of Public Procurement (PP) as well as supporting British producers and SMEs.	Set mandatory PP standards and for local seasonal British produce, support SMEs in using Dynamic purchasing Systems, dispose of exemptions on meeting quality and welfare standards for UK PP, set higher standards for procurement.
House of Commons, Environment, Food and Rural Affairs (EFRA) - Covid-19 and the issues of security in food supply	Recommendations focus on how the government can prepare the UK to be more food secure in the event of another Covid-19 outbreak, including supporting small retailers, vulnerable people and schools.	Review the annual Sector Security and Resilience Plans for the food sector, review whether relaxation of competition law disadvantaged smaller retailers, support for smaller retailers to use online markets, continue FareShare redistribution of surplus food.
Department for Environment, Food and Rural Affairs (Defra) – UK Food Security Report 2021	This report sets out the current food security situation of the UK and does not give recommendations per se.	Largely around diverse sources of imported food alongside domestic production. There is a suggestion of more locally sourced fish to make the UK more self-sufficient in marine protein, and signposts organic farming as having greater long-term sustainability.
National Food Strategy (NFS) – The Plan	Recommendations (14 in total) are for funding towards technology and supporting farmers through the agricultural transition as well as creating new frameworks, regulations and partnerships for the UK food system.	Funding towards the Environmental Land Management transition for farmers as well as for farmers sequestering carbon and restoring nature, funding for technology innovation for reducing livestock methane and using agroecology, redesign procurement rules and standards for imports, regulation for healthy diets, Rural Landuse Framework and local authorities to create partnerships and food strategies.
Industry and Science Publications		
Food Standards Agency - Covid-19	Recommends that government make healthy food more	Strengthen food quality standards, policies to encourage producing more healthy food, more education on healthy food, schemes

Consumer Tracker Waves 1 and 2	accessible to all through schemes and regulations.	for those on low wages and supporting well paid work.
SCAR expert group - Resilience and transformation	Points to technology, research and innovation as a solution for a fairer and healthier food system.	Investment in research and technology.

5. Conclusions.

From the reports reviewed here, it is apparent that **there is a strong acknowledgement of the role of local food actors (producers, processors, retailers) and SMEs in creating a sustainable, resilient and healthy FS by those within the local food movement**. Their requests to the UK government are directed around supporting local food chain actors, and they provide detailed strategies for how this might be made to happen. What is not always certain is where funds and capacity will come from to achieve this, or which specific policies need changing. **In contrast to this, the mainstream reports see local food actors and systems as supplementary to the existing global Just-in-Time system, and not necessarily as something that equals it in a resilient future.** We see this particularly in the policy papers reviewed, but also the science and industry reports, which do not give much focus or attention to local food systems. Although they point out the fragilities of global systems and recognise the need for greater sustainability, they identify research and technology as front-line solutions..

Whilst it is positive that the government and NFS acknowledges the role of DPS for public procurement, this is just one part of a much bigger picture. While mainstream food actors are picking up on the benefits of systems such as DPS for creating a more resilient FS, other innovative models of local food systems are still not being seen [2] [6]. Examples include local food partnerships, better trading platforms and open networks, buying group models, distribution hubs, etc. These innovative models highlight where action is being taken from the ground-up on a variety of scales: e.g. the farm-scale; the town / district scale; the regional scale; the virtual (relational)

scale. Such initiatives are additional to existing local food structures, such as public procurement, Community Supported Agriculture (CSA), street markets and veg box schemes, which also need further government support. Collectively they represent other important new forms of localised infrastructure and network building, social organisation and models for trading and investment. In light of the innovative examples of local food actors and partnerships noted in the reports by the local food movement group, as well as in this report, **there is still further work to be done to be better understand, trial and support these initiatives, including through government support and funding.** These place-based mechanisms could help to revitalise local economies, create meaningful jobs, healthier lives and above all a more sustainable, resilient food system for the UK.

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Appendices

Appendix 1: The understanding of local food in materials reviewed.

Report title and organisation	Local food definition	Use of local food
Soil Association (grow back better, shortening supply chains, ovid-19 & food supply, public procurement, EFRA covid19, EFRA public procurement)		• *UK produces low % of fruit (37%) & vegetables (53%) for own consumption* • *DPS to support local farmers and growers* • *Food for Life – "serving fresh, healthy, sustainable and locally sourced food" [10, p. 28]* • *Sustainable Food Places – "develop cross-sector* • *partnerships of local public agencies, businesses, academics and NGOs" [10, p. 28]* • *3 million people tried veg box schemes / local farm food during Covid-19*
Sustain (RSPB local food policy brief, case for local food, GFEs, EFRA covid-19 response, good food jobs)	Local food = produced, processed and consumed locally. Local food systems (LFS) = diversity & regeneration instead of extraction. Access to rewarding jobs and healthy food for all. Points out not all 'local' food is sustainable, and 'fair-trade' principles are needed for non-local food. 'Good food enterprises' – farmer-focused, short supply chains prioritising	• *Talks directly of local food systems / re-localisation as being good for climate, economic resilience, more jobs, biodiversity, building societal sense of responsibility for environment.* • *Good Food Enterprises - decent jobs, efficient food production and sustainability (e.g. towards Government's Net Zero goals)*

	healthy and sustainable food and access to it.	
FFCC		• *Strong local focus - based on Local Trust's 'Big Local' programme* • *Communities have opportunity to change local food system through Big Local programme* • *'Communities' used as if proxy for 'local' in report*
Food Foundation		• *Changing nature of local - Since Covid-19 there has been an expansion of the number of box schemes that buy in all their produce from wholesale suppliers and not necessarily from local producers.* • *Advocate CSA model for local healthy food* • *Farmers (small scale) need greater support from local authorities*
Dynamic food procurement national advisory board		• *"A regional food supply chain infrastructure needs to be established for the UK as an immediate priority to mitigate against future crises" [30, p. 6]*
Brighton and Hove Food Partnership		• *57% of people spending more in local shops* • *42% of people are spending more on food deliveries from local independents e.g. veg boxes, small grocery shops and food markets.* • *69% of people want to continue with new consumer habits – including shopping more locally, growing more, cooking more, avoiding plastic.*

House of Lords		• *As with SA, the HoL say that empty shelves and unharvested fields means we need greater resilience.* • *"A model where more of the UK's food was produced 'in house' could support smaller producers, enhance animal welfare standards, reduce air-miles and increase resilience to global shocks that disrupt food supply." [6, p. 132] However, it references NSF where trading "protects us from bad harvests." [6, p. 132] Therefore, imports can increase resilience.* • *"Providing resources for local coordinators means that need can be effectively met in conjunction with local partner organisations, but for the purposes of accountability and consistency, this funding should be directed to the local authority. Holiday club coordinators should sit within the local authority, with ring-fenced finding from central government" [6, p. 82]* • *"Allotments could play a role in shaping the physical environment in a healthier way, while also providing an opportunity for individuals to grow and consume nutritious food. Nourish Scotland told us that allotments could produce "very high yields while maintaining a diverse environment and providing social co-benefits" …" [6, p. 95]*
Defra 'The path to sustainable farming: An agricultural transition plan 2021 to 2024'		• *Very short paragraph on supply chains, just that vaguely will give farmers a fairer position in the supply chain* • *Local Nature Recovery Strategies to help secure environmental land management practices* • *Want visitors to support local economies in Protected Landscapes*
Defra 'UK Food Security Report 2021'		• *Overall, very little reference or direct use of local food in the report* • *Suggests more locally sourced fish to make the UK more self-sufficient in marine protein* • *Local businesses are recognised as part of a 'complex' UK wholesale and retail sector*

		• *Mentions the importance of 'local shops' to people during pandemic, but these could also be non-independent / chain stores, so not differentiated and more generic*

Appendix 2: The understandings of resilience in materials reviewed.

Report title and organisation	Resilience definition	Use of resilience
Soil Association (grow back better, shortening supply chains, covid-19 & food supply, public procurement)	• *"…diverse, mixed farming systems designed according to organic principles" and agroecology [10, p. 9]* • *Government should aim to build on local food response and encourage decentralised and more self-sufficient approaches which are more resilient - more support for regional supply chains*	• *"…resilient local and direct food networks… help them persist beyond the crisis" – used together indicating local = resilience [10, p. 8]* • *They question "how can our national supply chains be regionalised and re-localised?" Greater support for SMEs [10, p. 8]* • *UK supply chains currently lack resilience due to Just-in-Time and centralised structure* • *"One of the most notable responses has been the huge expansion of producers supplying consumers directly" [11, p. 5]*
Sustain (RSPB local food policy brief, case for local food, GFEs, efra covid19, good food jobs)	A system able to cope with shocks and strains which is diverse and good for people and environment	• *Resilience linked to re-localisation – supports diversity of produce which tackles waste & emissions.* • *Local enterprises more resilient in Covid-19 as better able to be flexible and adapt* • *Resilience of local communities through re-localised food chains, Good Food Enterprises and SMEs vital for resilience* • *Lack of resilience in current food system*
FFCC	To be able to bounce back	• *Resilience created through strong existing partnerships and communities in food work – fast & flexible with Covid-19* • *Communities given decision making power = resilience*
Food Foundation		• *CSAs were resilient during Covid-19 – "most CSAs have carried on more or less as usual." [12, p. 7] Strong relationships and volunteers have allowed them to be flexible and change capacity.*
Dynamic food procurement national advisory board	Adaptable to shocks in the system	• *"Our food supply chains have become highly specialised and efficient. Unfortunately, this makes them less adaptable and resilient to challenging external events."; "…councils could have a role in developing local food markets alongside training programmes in horticulture, food nutrition and cooking." [30, p. 2]*

House of lords		• *Burden of public diet on environment, economy and NHS already unsustainable* • *Covid-19 given the Government opportunity to act now to increase sustainability of the system*
Defra 'The path to sustainable farming: An agricultural transition plan 2021 to 2024'		• *In relation to climate change adaptation – agricultural subsidies*
Defra 'UK Food Security Report 2021'	"A resilient supply chain is robust and resilient, possessing an ability to recover from disruption and which can re-orientate to alternate outcomes when necessary." [13, p. 149]	• *"Resilience is ensured through a combination of strong domestic production from the UK's productive agriculture and food manufacturing sectors, and a diverse range of overseas supply sources." [13, p. 82]* • *"Overreliance on one geographical area and dependence on particular supply sources makes food supply more vulnerable, while diversity of sources makes it more resilient." [13, p. 83] – this partly repeating the above.* • *"The size and diversity of the UK food retail and wholesale sector provides economic resilience." [13, p. 153]*
POST	The system's ability to absorb change, adapt or transform, and then return to a steady state (which may differ from its original state) to shocks and changes	

EFRA	Quotes a POST report: A resilient food system is often defined as one that is robust, able to recover quickly after disruption and reorient towards more sustainable outcomes	• *Uses public summary on food sector resilience pre- Covid-19: "The UK food sector has a highly effective and resilient food supply chain, owing to the size, geographic diversity and competitive nature of the industry." and posits JIT as adaptable and sophisticated [14, p. 42]. Also states others differ in view (Prof Tim Benton) "our food systems are fragile" [14, p. 42]* • *Tensions between resilience and efficiency* • *"The Secretary of State told us that "our lesson from this [pandemic] is that our food supply chain is remarkably resilient" He stated that "generally speaking, we are more confident than ever that we need not worry too much about the end of the transition period"." [14, p. 44].*

Appendix 3: The understandings of food security in materials reviewed.

Report title and organisation	Food Security definition	Use of Food Security
Soil Association (grow back better, shortening supply chains, covid-19 & food supply, public procurement)	Resilience in terms of food security – biodiversity, economic diversification.	• *"The crisis has reanimated discussion of the UK's 'food security', a term that is sometimes conflated with a crude metric of self-sufficiency. Covid-19 has revealed our food security, in its true sense, to be complex and multi-faceted, rooted in both our supply infrastructure and domestic production." [10, p. 7]* • *Covid-19 has created greater food insecurity – highlighting inequalities in socio-economic circumstances* • *Technical barriers exist for SMEs accessing public sector markets* • *Effect of obesity on Covid-19 patients, issue of ultra-processed foods* • *Government hasn't acted quick enough to support farmers and SMEs during Covid-19* • *UK food systems were proven fragile by Covid-19 (empty shelves yet produce needing to be picked by non-existent workforce).*
Sustain (RSPB local food policy brief, case for local food, GFEs, EFRA covid19, good food jobs)		• *FS is a growing concern, economies of scale endanger security longer-term through environmental damage etc.* • *Re-localising can reduce food insecurity*
FFCC		• *Current food system failing us (Nine supermarkets control 95% retail market and unhealthy food is cheapest)*
Dynamic food procurement national advisory board		• *"The COVID-19 outbreak and subsequent lockdowns have exposed the fragility of the UK's food security, partly as a result of an overly consolidated funnel through which food must pass to reach the end consumer" [30, p. 2]*

House of lords	'Food security' refers to a household or an individual's ability to access food. In the report, that is distinct from discussions on the resilience and continuity of the food supply.	Asks government to create a food security policy and hopes the NSF will address this.
Defra 'The path to sustainable farming: An agricultural transition plan 2021 to 2024'		No mention
Defra 'UK Food Security Report 2021'	"[F]ood security means a supply chain that is consistently able to deliver adequate quantities of food, both through preparing for disruption and having the capacity and flexibility to respond effectively to unexpected problems". [13, p. 149]	• *Discusses food security in relation to supply chains, imports and domestic production* • *Notes the risks for food security on supply chain issues such as Covid-19, the closing of ports, shortages in agricultural inputs, cyberattacks and climate change*
POST		No mention
EFRA		• *Food insecurity exacerbated by Covid-19.* • *For the FS, Defra should "assess the extent to which our dependence on multi-national, just-in-time supply chains affects resilience" [14, p. 4]*