











How Local is Local?

Rethinking local food and the public plate in Monmouthshire, Wales

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This discussion paper draws from the academic evidence base to examine the practicalities and merits of **operationalising local food policy for the public plate** in Monmouthshire.

The main sections cover:

- The **policy background** in Monmouthshire and Wales;
- What local food is and where 'local' extends;
- Why local food is advocated and whether evidence supports claims for environmental, health and economic outcomes;
- How local food relates to the public plate and the opportunities and challenges involved.

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1. Short summary

Public procurement is recognised as a tool for keeping value in the local economy. Producers find reliable routes to market, and local government can strategically stimulate and shape markets. Could the public plate help Monmouthshire's food and farming sector to thrive?

The answer is a qualified yes. Local food can provide real opportunities – especially for SMEs – as part of a diverse mix of local, national and international markets. But procurement must balance offering local routes to market with sourcing sustainable, nutritious food. **Opportunities are matched with challenges and complex practicalities** which require sophisticated handling. **There are four main reasons to be cautious**.

- First, how local is local? Local food is difficult to define and operationalise geographically. Most definitions have weaknesses or create limitations. This poses few issues for a retailer, but becomes problematic for the public plate, on which a balanced approach is essential.
- Second, the 'local trap' lurks. It cannot be assumed that local food always, automatically guarantees positive social, economic and environmental outcomes. Purchasing decisions should be made by goals for nutrition and sustainability, not (only) geography. These goals can equally be used to encourage more sustainable local provision.
- Third, food supply chains are complex and influenced by many factors, from prices to seasonality. Shorter and closer is not always better. People and businesses who process, transport and sell food are also part of a thriving local economy. Opportunities for the 'missing middle' in supply chains could be developed.
- Fourth, procuring local food has marginal effects on local economic growth. In the current food system, local routes to market offer most benefit to small and micro-enterprises. Business and employment growth require market expansion. Expanding the public plate, including more public sector institutions and partners, could help transform demand.

These cautions are not an argument against local food. Changes to make the food system more sustainable and the rural economy more resilient are very much needed. In this, **local** food is a tool, but not in itself a solution.

The Welsh Government has set out major policy goals for 'the Wales we want' now and for future generations. Local food has a strong role in the vision for the future of food and farming in Wales. Achieving this will require **strategic interventions to make of Welsh food what it can be**, rather than what it is currently. Local government should be a key strategic actor.

Monmouthshire is well positioned to realise 'thought for food', with a supportive community, established high-quality food offer, and a track record in developing food initiatives. Of course, Monmouthshire County Council has a defined territory to serve. But while positive outcomes need to be delivered in Monmouthshire, these can be aided by further strategic thinking about market opportunities — where is Monmouthshire local to?

The key points

- In practice, local food is difficult to define geographically and challenging to operationalise.
- While local food can create **positive social, economic and environmental outcomes**, there are **risks in assuming that local is automatically good**.
- There is currently **little evidence base** for the relationship between **local food and economic growth**, but there are **untapped opportunities** including in supply chains.
- Public routes to market offer most benefit for small and micro-enterprises.
- A sustainable food strategy can work across **local**, **national and international markets**.



Abergavenny, Monmouthshire, home of the Abergavenny Food Festival
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2. Introduction

Our current food system is industrialised and globalised. Complex supply chains and 'just in time' logistics have developed to meet the needs of an urbanising population. This system offers benefits, like access to a wide array of foods for consumers, and access to many potential markets for producers. But there are costs to our environment and our health.

Across Wales, interest in local food is rising alongside concerns about **food security, climate change, sustainability, healthy communities** and **local economies**. Meanwhile, Brexit continues to create uncertainties for Welsh food and farming. COVID-19 has shown how fragile – but also how resilient and innovative – supply chains can be. Both raise questions about our **dependence on food imports and exports**.

Monmouthshire's food sector offers much to celebrate – from farmers and producers to the renowned Abergavenny food festival. Monmouthshire boasts both agricultural and horticultural growing conditions. Food entrepreneurs find a welcoming home in the county. Can the public plate help the local food and farming sector continue to grow and thrive?

Public procurement is recognised as a tool for keeping value in the local economy. Producers find routes to market, and local authorities can strategically stimulate and shape markets.

This discussion paper examines the practicalities – and potential pitfalls – of **operationalising local food for the public plate** in Monmouthshire. It draws upon findings from existing academic research to explore three key questions:

- How local is local?
- What is the evidence for common environmental, health and economic claims about the benefits of local food?
- What are the challenges and opportunities for local food in public procurement?

The answers to these questions are not straightforward, as Box 1 suggests and the following sections show. Importantly, **this paper does not aim to make a case for local food**. Instead, the paper takes a critical perspective, presenting existing evidence – positive and negative.

Box 1: How local is local in Monmouthshire?

- Is a supplier in Brecon or Hereford more local?
- If meat reared in Monmouthshire is processed elsewhere, is it still local?
- Does imported food processed in Monmouthshire count as local?
- Should a local ingredient be substituted even if it is less nutritious?

2.1. About the ROBUST project

This report was produced by researchers from the ROBUST project. ROBUST is a research project involving 24 regional partners from 11 European countries, including Wales. The project receives funding from the European Commission's Horizon 2020 Research and Innovation Programme, and is coordinated by Wageningen University in the Netherlands. In Wales, the ROBUST partners are Aberystwyth University and the Welsh Local Government Association (WLGA).

ROBUST believes that **creating strong**, **mutually beneficial linkages between rural and urban areas is key to realising smart**, **sustainable and inclusive development**. Research explores how synergies between rural and urban can be applied in practice. ROBUST's goals are to:

- Advance our understanding of the interdependencies between rural, peri-urban and urban areas; and,
- Identify and promote policies, governance models and practices that foster mutually beneficial connections.

Across the eleven participating regions, ROBUST's work brings together policymakers, researchers, businesses, service providers, citizens and other stakeholders. The project works to tackle regional challenges across five themes:

- Growing innovative new business models;
- Providing efficient public infrastructures and effective social services;
- Establishing sustainable food systems;
- Fostering dynamic cultural connections;
- Supporting vital ecosystem services.

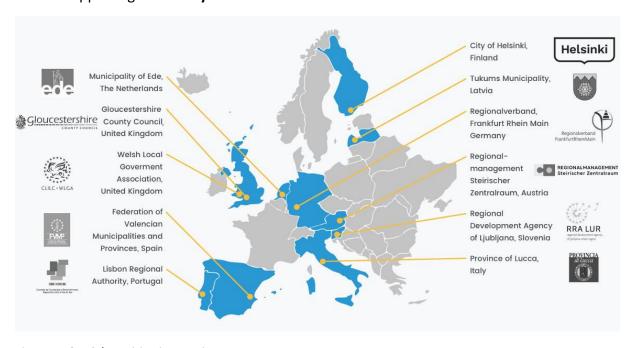


Figure 1: ROBUST's participating practice partners

3. Policy background

This section outlines key policy documents in Monmouthshire and Wales. It notes growing impetus for new food and farming strategies in Wales, and for a future food system informed by the Well-being of Future Generations Act.

3.1. A vision for local food in Monmouthshire

In 2016-18 Monmouthshire County Council participated in the URBACT Agri-Urban project, which examined agri-food production in small and medium European cities. The work led to an integrated action plan for Abergavenny, with a shared vision for local food (Box 2).

Box 2: Abergavenny Agri-Urban Integrated Action Plan – The Vision

The vision is to make [Abergavenny] a place where **Culture**, **Cuisine** and **Community** are intrinsically linked, where **local produce** is the purchase of choice for residents. A place where farmers are confident in the knowledge that they have **receptive markets** and where food is available at **fair prices for the producer and the consumer**, and draws on a **sustainable**, **resilient** and exciting ecosystem reflecting the traditions of this beautiful market town.

We believe the way to achieve our vision is to have a shared Food policy and strategy across the County, to create a unique food hub in the region, improving the level of **education and awareness** of the public on healthy food, and improving **access to land** for small scale cooperative production and the development of **innovative food production business skills**.

Source: Abergavenny Agri-Urban Local Action Group 2018

3.2. Food in recent Welsh policy

In 2010, the Welsh Government's *Food for Wales, Food from Wales* strategy set an agenda for "A **sustainable and resilient food system** that encompasses a food sector composed of competitive and profitable businesses". Increasing food and farming turnover was a key goal in the 2014 *Towards Sustainable Growth* action plan.

More recently, policy goals have broadened beyond turnover, with Welsh Government initiatives embracing the **foundational economy** – which provides many of the basic products and services we all need in our everyday lives. The 2017 *Prosperity for All: Economic Action Plan* identified food as one of four key foundational sectors in Wales.

Meanwhile, the Welsh Government are developing plans to support farmers after the EU Common Agricultural Policy (CAP) is withdrawn. The 2019 Sustainable Farming and Our Land consultation floated a new farm support scheme designed around **sustainable land management** for economic, environmental and social benefits. (A final report is pending.)

The Welsh Assembly's Climate Change, Environment and Rural Affairs Committee has also identified the need for updated food sector strategies. The committee's Rethinking Food in Wales inquiry has offered a new vision for food policy (Box 3), and has to date released reports on public procurement, and food branding and processing.

Box 3: Rethinking Food in Wales - A vision from the Senedd

- Healthy, locally processed food that is accessible and affordable;
- An innovative food industry sustaining high quality jobs;
- Sustainably produced food with high environmental and animal welfare standards;
- An internationally renowned destination for food lovers.

Source: Welsh Assembly 2019

3.3. A food system fit for future generations

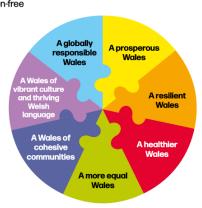
The 2015 Well-being of Future Generations Act places duties for sustainable development on all Welsh public bodies, including local authorities. The Act identifies seven overarching wellbeing goals, which policy and practice are expected to work towards.

A recent report by the Sustainable Places Research Institute at Cardiff University, commissioned by WWF Cymru, outlines how the seven wellbeing goals could be applied to a sustainable food system in Wales (Fig. 1).

- Wales celebrates and builds upon our Fairtrade Nation Status
- Food supply chains in Wales are deforestation-free
- Food is used to celebrate our heritage and Welsh language
- People come to Wales to experience our food, drink and hospitality
- Food is a fundamental part of the 'Foundational Economy'
- Food and farming supports rural communities to thrive
- Food is used as a 'convener' to bring people together
- Civil society organisations, food hubs and cooperative bodies promote local food initiatives
- Everyone has access to healthy, affordable food
- Co-productive approaches shape food provision in Wales

- Wales' natural resources are managed sustainably with healthy ecosystems underpinning food production
- More healthy and sustainable Welsh food is supplied directly to our Welsh public sector and Welsh households
- The real living wage underpins the Welsh supply chain
- Wales' food sector is a significant contributor to Wales' net zero climate change target, with significant carbon stored on Welsh land
- Wales' nature based/agroecological farming systems help restore biodiversity, soil health, help prevent flooding and keep Wales' air and water clean
- Everyone eats more fruit and veg and eats less processed food
- Everyone learns about food and how to grow and prepare nutritious meals

Figure 1: Outcomes of a food system fit for future generations. Source: Sanderson Bellamy & Marsden (2020).



4. How local is local?

This section draws from the academic research literature to examine two questions: What is local food? Where is local? Key concepts from theory and practice are introduced. The section also summarises notable alternatives to local food.

4.1. What is local food?

Local food can be most simply understood as food consumed near to where it is produced.

It's important here to **distinguish between food and farming**. Farming produces food through agriculture and horticulture. The food sector adds value through processing and preparation. Some would limit local food to just the products of local farming; others recognise the wider food sector, which may include locally processed products grown elsewhere.

However, local food also has connotations other than geography (Box 4, and Section 5). That means local food is **more often an intuitive idea than a set of fixed criteria**. Many understandings really begin with what local food *is not* – processed products from multinational brands that no longer seem to come from 'somewhere'.

Box 4: Four different ways to think about local food

- **Distance** is the geographical measurement between production and consumption.
- **Relationships** concern how we buy food, e.g. markets, shops, farm gate.
- Values are the reasons and ethics behind our food choices.
- Traditions include heirloom varieties, artisanal production methods, and local recipes.

In sum, local food is a 'fuzzy concept', which is **difficult to clearly define in practice**. There are a range of certification schemes and criteria used by organisations such as farmers' markets (some are outlined in Section 4.2), but there is **no universally agreed practical definition**.

4.1.1. Commonly confused concepts

Two concepts share some of the ideas associated with local food:

- Locality foods are marketed according to where they are produced, e.g. Halen Môn,
 Parmigiano Reggiano. They have added value in export markets.
- **Terroir** is a term from French winemaking, describing how local geology and microclimate affects crop flavours. Terroir creates added value for some locality foods.

Locality foods and terroir can help **grow the local food sector through premium products**, but they are not synonyms for local food because they only describe production, not consumption.

Because locality foods and terroir are often related to traditional recipes and production techniques, **local food can sometimes be mistakenly seen as static and unchanging**. Food can be inspired by international cuisine and still be 'local'.



Fagiolo rosso (kidney beans) are an important local crop in Lucca, Italy, where ROBUST partners are also working on sustainable food systems. Traditional bean varieties inspire many local recipes – but definitions of 'local' can be as small as a single village, or as large as the whole Tuscan region. Image © Roberto Giomi.

4.2. Where is local?

Just as it is difficult to define local food, it is equally tricky to map where local is in terms of distance. There is **no objective geographical definition** of how near or far 'local' can be.

Research with consumers shows that people actually use different rules of thumb for different products: local bread might come from the village bakery, local meat from the county, and local fruit from the UK. Defining where local food comes from really depends on **who** is doing the defining, **where** they are located, and **why** they need a definition.

Geographical rules are sometimes used in policy and practice. There are two main methods: a **radius**, or a **boundary** (Box 5). These are discussed further in the sections below.

Radius and boundary measures can be combined for more flexibility. For example, in the US the 2008 Farm Act defines local food as sold within a 400-mile radius of origin, or within state boundaries. Percentages add flexibility, too. In Latvia, 'Green Spoon' and 'Bordo Spoon' labels certify products with respectively 75% and 100% of their raw ingredients grown within Latvia.

Box 5: Two ways to map local food

- Radius measures are used to limit the geographical distance between production and consumption. Usually, the point of consumption (or sale) is taken as the radius centre.
- **Boundary** measures keep production and consumption within defined borders, like those of a county or region.

4.2.1. Using a radius

Mapping local with a radius involves drawing a circle around a central point of consumption, like a shop, school or town. Food produced within the circle qualifies as local. For example:

- The UK National Farmers and Retail Markets Association use a 30-mile radius (100 miles in London) to determine eligibility for traders on each market.
- In the US, the 'locavore' movement promotes a '100 Mile Diet'

Radius has some **advantages**. It is straightforward, yet recognises that 'local' is relative to where we are. Radius can also be flexibly adjusted to reflect availability, or for certain foods.

There are also **disadvantages**. Radius is 'as the crow flies' and does not take transport access into account. Examples from 30 to 400 miles also suggest that radius is fairly arbitrary.

4.2.2. Using a boundary

Mapping local with boundaries keeps **production and consumption within given borders**. These are usually official county or region boundaries, but can be geographical. For example:

- PGI designation for Cambrian Mountains lamb uses Natural Resources Wales' map of the mountains, plus a 10-mile buffer.
- Smaller countries, like Slovenia, take national borders as the limits of 'local'.

Boundaries have **advantages**, because they easily fit administrative and governance structures. County boundaries are seen as legitimate and can be sources of shared identity.

There are also **disadvantages**. Political borders are no measure of a balanced diet. Producers or consumers near the border may also have their most convenient markets on the other side.

4.2.3. The problem with postcode localism

'Postcode localism' occurs when **local spending is simply measured through a supplier's postcode**. Of course, having a local postcode does not mean that a supplier actually has local products (or is locally owned).

A form of unintentional postcode localism can also occur when, for example, a local grower runs out of produce and orders in more, without declaring where this has come from.

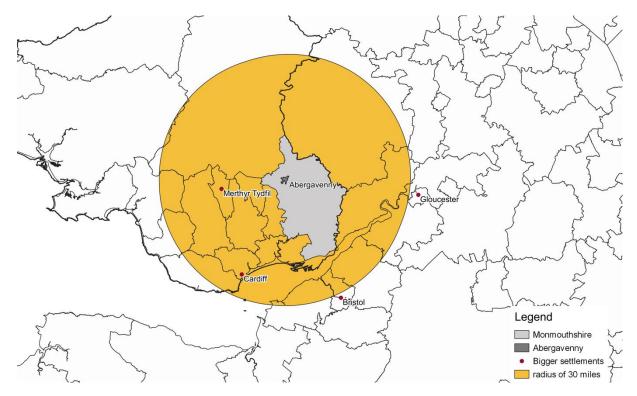


Figure 2: Map showing Monmouthshire's boundaries alongside a 30 mile radius (from Abergavenny) © Lisa Bauchinger

4.3. What are the alternatives to 'local food' as a concept?

Three concepts from research offer potential alternatives to 'local food'. **Short Food Supply Chains** and **proximity** are similar ideas that integrate geography while offering ways to compensate for the limitations of radius and boundary alone. Both also maintain provenance, or how food product origin is traced. **New localities** is a theoretical frame that integrates different ways of understanding geography. The three concepts are introduced below.

4.3.1. Short Food Supply Chains (SFSCs)

Short Food Supply Chains count the **number of links in the supply chain between producers and consumers**. There are three main types of SFSC (Box 6). A report for the European Commission's Joint Research Centre (Kneafsey et al. 2013) defines an SFSC as occurring when:

The foods involved are identified by, and traceable to a farmer. The number of intermediaries between farmer and consumer should be 'minimal' or ideally nil.

Box 6: The three types of Short Food Supply Chain

- Face-to-face: producers sell directly to consumers, e.g. farmers' market.
- **Proximate**: producers and consumers are in the same geographical area.
- Extended: producers and consumers are geographically far apart.

Advantages include tracing provenance information. There is evidence that SFSCs have higher economic multiplier effects. They can help farmers retain more added value (see Section 5.6).

There are **limitations**. Because supply chains are influenced by season and environment, SFSCs are not always possible or preferable. Reducing intermediaries is easier for some foods (like vegetables) than others (like bread). Supply chains can also be sources of local employment (see Section 5.5). 'Short' is not necessarily any more sustainable than 'local' (Section 5.3).

4.3.2. Proximity

Proximity refers to both how far food travels and through how many links in the supply chain. There are three key dimensions (Box 7), two of which overlap with SFSCs. Although geographical distance often features, proximity could also include historical and cultural connections that bring people and places closer together.

Box 7: The three dimensions of proximity

- 1. **Geographical distance** between production and consumption.
- 2. The number of links in a supply chain between producers and consumers.
- 3. The values behind closer farm to fork relationships.

Proximity shares **advantages** with SFSCs. The values dimension (Section 5.1) adds outcomes that are not otherwise guaranteed through geography or supply chains, such as fair trade.

Again, there are **limitations** in reducing distance and/or intermediaries. The values dimension can introduce conflicts between different values, which will be discussed in Section 5.

4.3.3. New localities

'New localities' is a key concept used in the ROBUST project. The concept uses three different ways of looking at geography (Box 8) to integrate the need for administrative boundaries with how these are crossed in practice.

A functional locality forms in two ways: through **institutions**, like a local authority or shopping catchment area; and, through shared **identities**. People and businesses may be part of different localities for different purposes and at different times. For example, a Monmouthshire farmer may be part of a 'local' village community, vote in 'local' county elections, and sell at a 'local' farmers' market over the border.

Box 8: Three different ways of understanding geography

- Absolute: has fixed boundaries, like a county.
- **Relative:** has blurry boundaries, like the functional region around a city.
- Relational: has connections instead of boundaries, like two points in a supply chain.

The **advantages** lie in recognising that local economies are both managed *within* boundaries, and practically *cross* boundaries. Rather than a simple radius or boundary approach, this can enable more nuanced ways of looking at 'local' markets, such as road transport travel time.

There are **limitations**. Administrative boundaries sometimes disrupt practice. 'Relational' connections pose challenges for governance, and are difficult for local authorities to manage.

Section conclusion

Buying local is not straightforward. While local food can seem obvious, defining 'local' is difficult in practice. The two main methods for putting 'local' on the map constrain the distance between production and consumption through a radius from a central (sales) point, or a boundary around a region. These methods are easy to operationalise and can perform well for retail and branding. However, taking a **simplistic or overly narrow geographical approach** to a full diet risks leaving nutritional or seasonal gaps.

This has implications for the public plate, which will be returned to in Section 6 below. As a result, a more flexible approach to defining 'local' is needed. The **alternative concepts of proximity and new localities are recommended** in tandem.

- Proximity encourages discussing the values behind local purchasing choices (Section 5) and brings the supply chains linking production and consumption into view.
- New localities recognises administrative boundaries, while offering a lens on how 'local' is made in practice. This can be used to look at local markets in new ways, such as by using actual travel time instead of physical distance.

These concepts can still be used with radius and boundary measures, but are not restricted to them. Together, proximity and new localities offer more **scope to pursue goals** such as those set out in the *Well-being of Future Generations Act* (Section 3.3), and to **identify market opportunities** (Section 5.5).

How these concepts could be operationalised will be considered in Section 6. The following section explores the values behind local food.

How local is local? Summarising the key points

- Local food can be most simply understood as food consumed near to where it is produced.
- But in practice local food is a fuzzy concept that is difficult to define or objectively map.
- Most attempts to map local food use a radius or set boundaries.
- These measures have limitations.
- Two alternative concepts **proximity** and **new localities** are recommended.
- These offer more scope to pursue goals and identify market opportunities.

5. Why local food?

This section turns from the 'what' to the 'why' of local food. The main claims made for local food are considered alongside the research evidence for impacts on the environment, health and the local economy.

5.1. The values and priorities behind local food

Particular values and priorities form the 'why' for buying local. These priorities are another reason why a geographical definition of 'local' is too simple. But it is important to remember that local is a potential means of achieving priorities, not a guarantee.

Cardiff University's Professor Kevin Morgan reminds us that food is a commodity like no other:

[F]ood plays a role in health and wellbeing – **the health and wellbeing of people and planet alike** – that differentiates it from any other manufactured product or service. (2015:1)

If food matters, local food matters in particular ways. For many consumers, local food suggests freshness and quality. Campaigners argue that local food is more sustainable. Councils are often interested in the local economy. These priorities can be divided into four types (Box 9).

Box 9: The four types of priority behind food policies and choices

- Market priorities focus on business and economic goals
- Public priorities focus on broad goals, like public health and the environment
- Community priorities include transformative goals like identity and inclusion
- Individual priorities are personal reasons, like our own health or tastes

Different priorities are behind the different ways that people understand local food. One person may think of traditional crops grown in her region (community priorities); another may mean organic vegetables from his high street greengrocer (market and public priorities).

Priorities can overlap. But **not all purchases 'tick all the boxes' all the time**. For example, consider choosing between a grower in Brecon or Hereford. A priority to support the Welsh economy would lead to Brecon. But an environmental priority might put Hereford in front.

5.1.1. The local trap

The 'local trap' is the **false assumption that local food is always, automatically better**. In reality, there is nothing *inherently* good or bad about food produced and sold at any scale, whether local or global. A local producer can pollute, exploit employees and sell unhealthy food, just as an imported product can be sustainably produced, fairly traded and of the highest quality.

The local trap becomes a trap when false assumptions lead to poor decisions. A tragic example was the 2005 South Wales *E.Coli* outbreak – traced to a Bridgend butcher who had been awarded school meal contracts despite food hygiene concerns.

To avoid falling into the local trap, local food should be treated as **one potential means** to achieve positive outcomes, but **neither a guarantee of positive outcomes nor an end in itself**.

5.1.2. Sustainable Food Systems

Public and community priorities for food, especially climate and environmental concerns, can lead people to talk about 'local food' when they really mean a sustainable food system. The UN Food and Agriculture Organisation (2018) defines a sustainable food system as delivering:

"food security and nutrition for all in such a way that the **economic, social and environmental** bases to generate food security and nutrition for future generations are not compromised."

Local food can be part of a sustainable food system – but a **sustainable food system is not necessarily local**.

Aberystwyth University's Professor Michael Woods (2020) has identified **four potential** scenarios for sustainable food futures:

- Reconnecting the rural hinterland: cities increasingly 're-localise' food production to surrounding rural areas. This approach has been advocated in Bristol (Carey 2011).
- Reviving urban agriculture: urban food-growing practices become more common, such as city farms, allotments and community gardens.
- Peri-urban intensive farming: food production using intensive methods is concentrated in peri-urban areas, minimising transport to adjacent urban centres.
- Reruralisation: future populations move 'back to the land' and produce their own food.

As these scenarios suggest, whether and how our food system becomes more sustainable will depend on land-use choices and interactions between rural and urban.

5.2. Research evidence for claims about local food

Many claims are made about the benefits of local food. As the 'local trap' cautions, assumptions about local food are not necessarily true. There is **good evidence for some claims, but less evidence for others**.

The table below summarises some of the most common claims by whether the evidence to date makes them more or less controversial. The next sub-sections look at what research tells us about local food in terms of environment, health and nutrition, and the local economy.

Less controversial claims about local food	More controversial claims about local food
Local food benefits local producers	Local food is better for the environment
Local food offers more opportunities to connect producers and consumers	Local food reduces greenhouse gas emissions
Local food is easier to trace	Local food is healthier
Local food contributes to food security	Local food is better for animal welfare

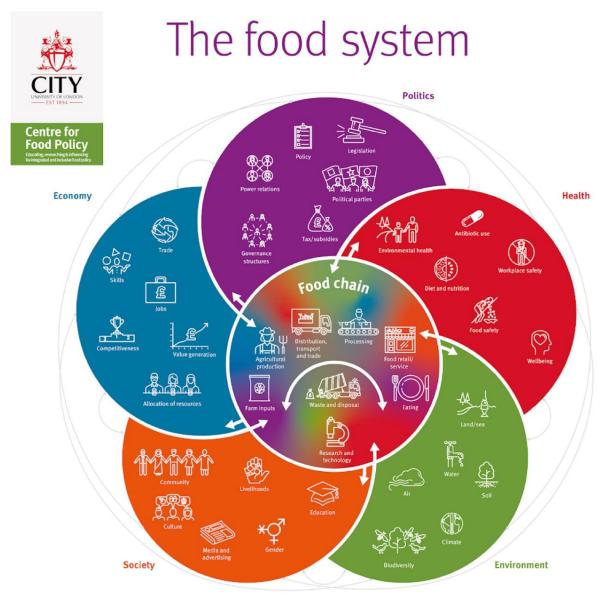


Figure 2: Our complex food system. Source: Parsons et al. 2019, diagram from SAPEA 2020

5.3. Is local food more environmentally sustainable?

We **should not assume that local food is always more sustainable** because emissions and environmental impacts occur throughout production. Both local and imported foods have strengths and weaknesses. Little conclusive evidence is applicable to all places and products.

Food miles are well-known. But researchers caution against using food miles as a proxy for sustainability because transport is only one part of the food system. Production, processing and storage can all be carbon-intensive and environmentally adverse. Transport mode also makes a difference. For example, shipping is typically more efficient than road freight. That means there is no simple correlation between distance and emissions.

Findings from recent studies on the link between local food and sustainability include:

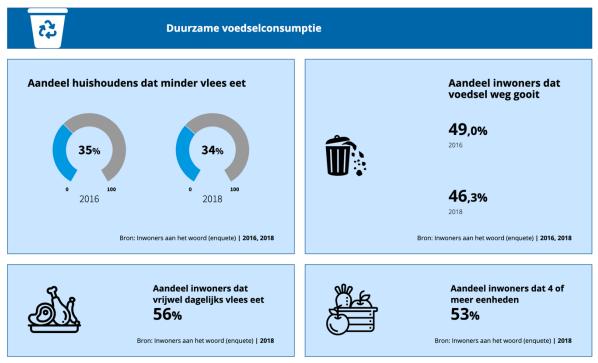
- A comparative study found that local food is generally more sustainable, but not due to a smaller carbon footprint. Identity, know-how, size and management are more important for environmentally sustainable outcomes (Schmitt et al. 2017).
- The same study found that some imported items created lower emissions than local equivalents because they were transported efficiently and in bulk (Schmitt et al. 2017).
- Several studies show that emissions from agriculture are more significant than emissions from transport (e.g. Avetisyan et al. 2014, Kreidenweis et al. 2016).
- Some predict that a more localised food system could actually increase emissions, and require more land to be brought into production (e.g. Kastner et al. 2014).

5.4. Is local food fresher and healthier?

It is **not possible to claim that local food is always better for us**. Nutritional value depends on many factors from farm to fork, including crop attributes, storage, processing, and cooking.

The **supply chain can make more difference** to freshness and nutrition than local food (Edwards-Jones et al. 2008). For example, imported produce that has been climate controlled and quickly transported to arrive in our shops shortly after harvest will have retained more nutritional qualities than local produce that has spent the same time on a market stall.

Whether food is 'healthy' **depends on processing, cooking and diet**. Sugar-filled local food is not healthy, and local food cannot make us healthy if we are not eating a balanced diet.



ROBUST partners in Ede, Netherlands, have developed a municipal food dashboard to track data according to strategic priorities for the regional food system. This example shows the dashboard's key indicators for sustainable consumption, including statistics on meat and vegetable consumption and household food waste.

5.5. Does local food benefit the local economy?

Buying local food can benefit the local economy in direct and indirect ways. But research evidence is limited, and the actual outcomes will vary according to each local economy.

Although the economic benefits of buying local food are widely assumed, **evidence from research remains limited**. This is largely because it is difficult to define local food and to access sensitive business data. The evidence to date has some further weaknesses:

- Few studies benchmark data, making it easy to over-estimate economic effects.
- Local food spending is typically treated as 'new money' for the local economy, which may not actually be the case.
- Research rarely accounts for the opportunity costs of switching to local purchasing.

There are three types of *potential* economic benefits (Box 10). Importantly, **which benefits occur and how depends on the structure of each local economy**. For example, a local economy where producers can buy services from local suppliers will likely see more indirect benefits than an area that business spending leaves. For this reason, we should be wary about studies that multiply the benefit of every pound or dollar spent on local food – they may not be comparable.

Box 10: The three potential forms of economic benefit

- **Direct** benefits are received by producers for sales.
- Indirect benefits are how money from sales spread to others, such as suppliers and staff.
- Induced benefits accrue from direct and indirect benefits through income, spending and multiplier effects, e.g. a change in average household income or rise in regional GDP.

Local food will have **most impact** on the local economy **when direct benefits from sales can be converted into indirect and induced benefits** as well.

But creating too much of a closed process can be risky. The economic development strategy known as 'Import Substitution' (i.e. substituting imports with local products) has been shown to have **short-term economic benefits, but diminishing longer-term returns** (Box 11).

Box 11: The long-term limitations of Import Substitution policies

- Economies that are more self-sufficient are also less likely to specialise, limiting their competitive advantage in higher-value export markets
- Businesses can take local markets for granted and lose incentive for quality or innovation.
- Local markets are ultimately always limited, restricting long-term growth.

The following sections take a closer look at impacts for farmers, enterprise, and employment.

5.6. Supporting farmers and fostering enterprise

Local routes to market are most important for small producers and micro-enterprises, including new entrant farmers. Farms that specifically sell locally tend to grow food that is practical for small-scale production and can be profitably sold in small amounts, such as salads, vegetables and eggs. Research indicates that:

- Farmers can **add value** and improve income through local sales and short supply chains, especially if they have a say in supply chain management (Schmitt et al. 2017)
- Local direct sales can help producers promote product quality (Beriss 2019)
- But farmers selling mostly locally are less likely to engage in farm diversification and strategies to supplement income, so may remain financially precarious (Paul 2018).

As the final point suggests, we should **distinguish between supporting small producers and romanticising small farms** – the 'local trap' lurks here, too.

There is specific research on the impact of local food in public procurement. This largely comes from the US, where Farm-to-school programmes have existed since the 1990s. Studies show:

- School procurement creates modest economic impacts with smaller impacts the smaller the geographical area (Becot et al. 2017).
- Most participating farms are small to medium sized, but school sales are still a small proportion of farmers' income 1-5% (Becot et al. 2017).
- A Vermont study found the best benefits for vegetable growers (Roche et al. 2016).

The benefits and barriers identified by US school studies are summarised in the table below.

Economic benefits for producers	Economic barriers for producers
Market diversification	Navigating supply chains and infrastructures
Selling produce too small/imperfect for retail	Schools are sensitive to prices
A predictable market	Mismatches between growing seasons and school terms

Supplying local markets is not *guaranteed* to be profitable, especially when the value of farmers' own time is taken into account (Deller et al. 2017). Studies have found that farmers often sell locally due to **personal values instead of financial motivations** (Deller et al. 2017).

On the other hand, farmers who are more likely to engage with alternative markets, including the public plate, may also be more innovative. This can include, for example, larger growers who have diversified, or younger farmers keen to experiment. Rather than where sales happen, it may be more useful to **consider how farm businesses work effectively**.

Maintaining a viable food or farming business often relies on **multiple markets**. For example, research in a Vermont (US) town famed for its local food economy found that some producers were thriving because they were also exporting their products outside the area (Olson 2019).

However local is defined, **local markets are always limited**, and growing businesses need to expand their sales. This can be seen in Wales, where small food enterprises often have their main markets here, but larger enterprises distribute across the UK (Welsh Government 2010).

Beyond producers themselves, local sales can create **indirect benefits for other local businesses**. For example, orders from local producers enable a local packaging firm to expand.

At the same time, a decision to purchase local food is also a decision *not* to purchase non-local food. This can also have **unintended negative effects**. For local wholesalers who trade in non-local products, for example, buying locally grown food can hurt sales.

Thinking more globally, some researchers have argued that sourcing food from other places – particularly the developing world – can have a greater impact on economic justice and positive labour relations than local purchases (Peterson 2013). We need to **beware of assuming that buying local will have unproblematically positive economic effects**.

5.7. Creating employment

Local food can help sustain employment, especially in SMEs. But rather than creating many jobs in a single firm or of one type, the employment effects of local food should be understood as **spreading through the food sector**, **along supply chains**, **and through entrepreneurship**.

In Wales, **agricultural employment is in long-term decline**. Technology has made agriculture less labour-intensive. Tight profit margins squeeze wages, and much work is seasonal. Farmers using more labour-intensive techniques, such as organic growing, often depend on volunteers.

Many farmers themselves depend on off-farm work to supplement income. Those selling through alternative food networks, rather than mainstream markets, may also be **effectively part of the precarious 'gig economy'** – constantly looking for new 'gigs' to sell through.

Increased local food purchasing is **hence unlikely to increase agricultural employment**, since conditions in the sector are structural. However, local sales can support existing employment, especially through economic uncertainties and market disruptions. Research indicates:

- Farmers selling locally spend proportionately more on labour (Shideler et al. 2018).
- Farmers and SMEs selling locally may require a more multi-skilled workforce, due to higher in-house needs such as sales and marketing (Shideler et al. 2018).
- The main sub-sectors for agricultural employment growth are predicted to be in agritech, specifically ICT, infrastructure and engineering, and precision farming (BIS 2016).

The wider **food sector is a stronger source of employment** than agriculture, supporting around 1 in 50 jobs in Wales (Welsh Government 2010). Although most businesses in the sector are SMEs, larger companies provide most employment (Welsh Government 2010). **Local markets can do little to grow large employment providers**.

Yet, while small and micro-enterprises do not create significant employment, they are still significant *to* employment – after all, failed entrepreneurs become unemployed!

Further, food sector employment exists from farm to fork. There is some evidence that SFSCs (Section 4.3.1) have positive indirect effects on employment in the food sector (Kneafsey et

al. 2013). Since most research has focussed on production or consumption, **employment through supply chains and spillovers is a 'missing middle'** that could be further explored.

The table below summarises the opportunities and challenges for employment.

Opportunities for employment	Challenges for employment
Agri-tech	Continued decline in agricultural employment
Food sector entrepreneurship	Current climate of economic uncertainty
Food sector innovation (e.g. product design, food technology)	Poor pay in some sectors, and reliance on volunteers in e.g. labour-intensive growing
Food processing	Large firms provide most food sector jobs
Short supply chain distribution and logistics	Lack of locally-based skilled staff
SME skills and business services (e.g. marketing)	Lack of premises for business expansion

Section conclusion

Simply buying locally-produced food will not guarantee positive environmental, health and economic outcomes. In some cases, the 'local trap' can even prove a poor choice.

Local food cannot be a simple solution because **our food system is complex**. Since much more than production and consumption is always involved, the distance between producers and consumers can only ever be one part of a bigger puzzle.

Rather than focusing simply on local, we should **engage with sustainable food systems**. Local can be sustainable, but sustainable is not *always* local. Making sustainable food purchasing choices involves making the objectives behind those choices specific and explicit.

Local food can add value and provide routes to market, especially for smaller producers. But local markets are always limited – and so is the local food supply. A 'hybrid' strategy should aim to maximise the benefits of local food while also choosing well from suppliers further afield. This can and should include ethical choices, such as fair trade.

Similarly, supporting small producers should not mean romanticising smallness or focusing only on farms. Like local, small can be sustainable, but sustainable is not *always* small. Agritech offers opportunities for innovation and employment that are very different from the traditional small family farm. The 'missing middle' in supply chains can also benefit the local economy. **Identifying and enabling innovation is crucial.**

Why local food? Summarising the key points

- The 'local trap' lies in the false assumption that local food is always, automatically better.
- Researchers have found good evidence for some, but not all, claims about local food.
- Local food is **not always more environmentally sustainable** because emissions and environmental impacts occur throughout production.
- Local food is not always healthier, due to processing, storage, cooking and diet.
- Buying local food can benefit the local economy in direct and indirect ways, but actual outcomes vary according to the structure of each local economy.
- Local routes to market offer the most benefit to small producers and micro-enterprises.

6. Local food and the public plate

This final section applies the theory and evidence covered over the preceding pages to the public plate. It evaluates the opportunities and challenges of incorporating local food into procurement, and notes Monmouthshire's potential as a 'living lab' for food.

6.1. Evaluating local food as a procurement strategy

The sections above have shown that local food is neither a straightforward concept nor a direct route to positive outcomes for the environment, health and local economy. Simply buying local will not transform our food system. **Purchasing decisions should be made by goal, not (only) geography**.

This does not negate the potential for a procurement strategy in and for Monmouthshire. As Kevin Morgan (2010) explains, 'local' is not an either/or proposition. Rather, a truly sustainable and ethical food system combines good choices from both local and global options. Proximity in *relationships* with producers and suppliers helps inform good choices.

In Monmouthshire, local food can and should play a part in a **procurement policy that promotes healthy and sustainable outcomes**. Because local food does not *in itself* create those outcomes, it is important to have clear objectives for purchasing decisions. 'Dashboard' or 'scorecard' approaches can be helpful here, as can quality accreditation marks.

Procurement also can and should play a part in **strategically developing food and farming** in Monmouthshire and **supporting resilience**. Local sales do help small and micro-enterprises, and that procurement can provide local routes to market. Procurement demand can further be used to foster aspirations, such as growing horticulture production in Monmouthshire.

Equally, thriving businesses require a viable balance of local, national and international markets. As *one of many* diverse markets, procurement should **add value within a wider strategy** for Monmouthshire's producers.

In sum, procurement should be part of a resilient and sustainable food strategy, with explicit objectives to guide good choices, and engaging with diverse markets at local, national and international scales.

The next two sub-sections outline challenges and opportunities for local food in procurement.

Box 12: Principles for procurement

- Sustainability healthy and sustainable goals are explicitly identified and pursued
- Diversity procurement accesses diverse sources according to sustainable goals; local producers can diversify markets through procurement
- Resilience procurement is a part of developing a resilient food and farming sector

6.2. Challenges for procurement

The public plate requires **healthy nutrition from quality food supplied reliably, safely and cost-effectively**. These requirements can present challenges for local food, and vice versa.

First, procurement needs **transparent operational rules for supplier eligibility**. Because local food remains a fuzzy concept, 'local' is difficult to translate into procurement practice.

Further, what can be grown locally is naturally and seasonally limited. This means that a geographical limit for procurement will equally limit what is available for the public plate and when. Limits like radius and boundary (Section 4.2) work well for labelling schemes and food retail. But because procurement must provide balanced nutrition and follow the Welsh Government's Healthy Eating in Schools regulations, **local food alone is insufficient for the public plate**.

Increasing the amount of local food in procurement can also have unintended results:

- Extending crops and growing seasons through e.g. hothouses and cool storage can be more resource-intensive and less sustainable than imported alternatives.
- Suppliers may seek to fulfil 'local' orders by not declaring products' actual provenance.
 'Food fraud' extends from inadvertent actions to intentional deception. Evidence suggests that local food is not immune from fraud (Manning 2016).

This latter point also has implications for food safety, since taking responsibility for public health requires being able to trace any contamination back to the source. **Food safety is crucial for the public plate but can be challenging for local producers**. Evidence indicates:

- Food safety requirements can pose a barrier to local food SMEs (Ilbery & Maye 2005)
- Food safety tends to be better in high-volume production, which is often not local (Schmitt et al. 2017).

Price poses challenges, too. Procurement is limited by public budgets, and the price of school meals is a social justice issue. Localising food procurement raises the following price issues:

- Evidence on the benefits of local sales for farmers and producers often points to adding value through consumers' willingness to pay more – procurement cannot pay more.
- The SMEs most benefited by local routes to market are also least able to pass savings on to the public budget through economies of scale.

However, price is complex and calculations do not include farmer subsidies or ecological costs. **Transparent pricing is necessary**. A recent local procurement trial in Bath and North East Somerset actually created cost *savings* on vegetables and meat.

The table below summarises challenges for procurement and the pros and cons of local food.

Challenges for procurement	Pros and cons of procuring local food
Meeting nutritional requirements	Pros: Access to crops in season; 'fork to farm' education
ivieeting nutritional requirements	Cons: Local crops are naturally and seasonally limited
Food safety and traceability	Pros: Higher traceability in local and short supply chains
rood safety and traceability	Cons: Meeting food safety requirements a barrier for SMEs
	Pros: Shorter physical transport distances
Logistics and continuity of supply	Cons: Local crops are seasonally limited; seasonality may not coincide with school terms; small producers may be unable to fulfil orders/meet specifications
Price	<i>Pros:</i> Large overall procurement budget provides possibilities for stimulating markets
Price	Cons: Local producers may look for prices which are out of public budget range
Operationalising goals and values	Pros: Large overall procurement budget provides possibilities for directing markets towards goals
Operationalising goals and values	Cons: Translating goals into clear, transparent operational criteria is difficult

6.3. Opportunities for local food procurement

Despite challenges, integrating local food into procurement presents opportunities, including diversification, routes to market, foundational economy innovation and supply chains.

Brexit and COVID-19 have already directed renewed attention to our dependence on food imports and exports. Both local food and procurement can help **diversify our food system and food and farming sectors in new ways** – rather than return to old patterns. For example:

- Procurement can provide market opportunities to increase resilience for existing SMEs and offer a foothold to new entrants in food and farming.
- Dynamic Procurement Systems (DPS; section 6.3.1 below) can be used to unlock procurement contracting for SMEs.
- Preparing local producers to meet procurement requirements can also enable them to supply in other counties and across the border.

There are also opportunities to **expand the public plate**. Including a broader range of public bodies and workplace canteens in procurement contracting – facilitated through a DPS – would create a significant market. This would overcome some limitations of the local scale, and provide more scope to influence goals for healthy, sustainable food production.

Importantly, procurement markets are not just within Monmouthshire. There are also opportunities for Monmouthshire producers to supply the public plate beyond the county. Instead of asking 'where is local to Monmouthshire?', a strategic approach should identify where Monmouthshire is local to. Preparing Monmouthshire producers to meet procurement requirements – such as quality, safety and portion sizing – will help them take advantage of potential opportunities beyond the county.

One way of developing procurement markets outside Monmouthshire is to **think in terms of travel time** rather than geographical distance. Monmouthshire's proximity to the motorway network could enable distribution within a two-hour limit, for example. Another interesting way to develop proximity is through **heritage links**, such as other towns and cities that Monmouthshire has historically traded with.

Distribution to wider procurement markets also presents opportunities for local supply chains. Section 5.3 noted that the 'missing middle' in supply chains is underdeveloped and underresearched. Stimulating markets through procurement and tracking the results could **reveal** where local links in supply chains are and/or where they can be developed.

More broadly, Welsh Government policy clearly favours transformation in the food system, and has explicit **ambitions to re-value the foundational economy**. Food is now one of four key foundational sectors in Wales (Section 3). This provides a policy basis for food sector growth, and emphasises innovation. There are opportunities to use procurement as **a tool for transformation and innovation** within a sustainable food strategy in Monmouthshire.

The table below shows procurement's potential role in opportunities for the local food sector.

Local food sector opportunities	The role for procurement
Supporting and diversifying SMEs	Providing local markets; expanding opportunities for small producers; developing the role of the local authority as an anchor institution
New routes to market	Preparing producers to participate in procurement contracts through DPS; understanding the support the food sector needs
Revaluing the food sector within the foundational economy	A tool in a wider strategy to foster food sector innovation and transformation
The 'missing middle' in supply chains	Stimulating the missing middle; tracking economic effects

6.3.1. Dynamic Procurement Systems (DPS)

A Dynamic Procurement System (DPS) is an **IT-managed system matching supply, availability and capacity to demand**. This dynamic matching differs from typical lot-based contracts, which award a standardised order to a single supplier for a number of years. A major benefit is that DPS **enables SMEs to participate in procurement contracts**.

Potential suppliers are able to **pre-qualify and join the DPS at any time**. The pre-qualification offers opportunities to improve quality. For example, producers who do not meet the standard for qualification can be given feedback to help them improve and later re-apply.

DPS for the public plate was piloted in Bath and North East Somerset (BANES). The trial was the result of a 'Think Local' procurement strategy, along with a local food strategy. In the trial, the company Fresh Range used algorithms to log suppliers, execute orders, and arrange collection and delivery. The BANES DPS worked by:

- Pre-qualifying local farmers and producers as suppliers within the DPS
- Allowing these qualified suppliers to list their available produce with Fresh Range
- Enabling school kitchens to buy food directly from Fresh Range using an app
- Tailoring order fulfilment according to schools' and producers' own needs

The trial involved 41 kitchens, 60 primary schools, and initially around 20 producers. Over 100 local producers continue on the Fresh Range DPS system. Key outcomes included:

- Initial concerns about increased costs were not justified costs actually fell, due to
 efficiencies in the kitchen and logistical savings.
- The algorithms also led to reduced emissions from delivery van miles.

There were a number of challenges identified in the trial, including:

- The need to take care with procurement rules, and have legal expertise available
- The time needed to move to the trial from idea to operation
- The liaison work necessary to inform and prepare suppliers

Due to product availability, it did not prove possible to run a DPS for all the food groups on the public plate. The BANES DPS covers fresh meat, vegetables and fruit; national wholesalers still supply dry goods and diary. Following the trial, Crown Commercial Services have announced a DPS regional pilot for south west England, to begin in 2021 and operated by the new South West Food Hub (www.thesouthwestfoodhub.co.uk).

6.4. Monmouthshire as a 'living lab' for food

Much of the evidence presented in this report comes from specific case studies and concerns the food system as it is, not as it could be. The changes that are occurring in the food and farming sectors, together with directions in Welsh policy, present an **opportunity for Monmouthshire to strategically innovate as a 'living lab' for food**.

A living lab is a **place-based form of experiment and co-creation**. The purpose is to test and evaluate new ideas, systems and processes in a real-world setting. Through living labs, local government, researchers, businesses and residents come together to test new ways to solve problems in their regions. Box 13 shows the five characteristics of a living lab.

Box 13: The five characteristics of a living lab

- Living labs are embedded in places in order to test innovation at a local level
- The key focus is on experimenting and learning in real world contexts
- They include participation from government, industry, the public and research
- Having a leader or owner such as local government is crucial
- Evaluation over time helps refine goals, methods, and visions

A living lab for the food system has particular potential to **experiment with and identify the best ways of putting policy goals into practice**. Learning and evaluation could in turn be used to refine a food strategy. This approach could be implemented using the practical pathway to a sustainable food system, recommended by European science organisation SAPEA (Box 14).

Box 14: A practical pathway towards a sustainable food system

- Imagining what a sustainable food system should look like
- Selecting appropriate indicators to track actions in the food sector
- Analysing the existing food system
- Identifying appropriate interventions and innovation strategies
- Monitoring impacts
- Guiding the process iteratively

Adapted from SAPEA (2020)

Monmouthshire as a living lab for food would ideally be led by Monmouthshire County Council, incorporating the council's vision and strategy for food, along with enterprise and business support, and a data platform for the food and farming sectors. **Procurement would be a key domain for practical experiment and evaluation**, with results tracked in real time.

The table below indicates some questions such a living lab might explore, and links these to relevant concepts from this report.

Strategic interest	Learning through a living lab	Concepts
	How can procurement advance Monmouthshire's food strategy?	Sustainable food systems (p.16)
Monmouthshire food strategy	What is the contribution of local food in Monmouthshire to sustainability indicators?	New localities (p.13)
	Where is local to Monmouthshire?	Priorities for food (p.15)
- I I I I	Triangulating local supply, procurement demand, and	Proximity (p.13)
Food and farming sector data	potential to develop suppliers	New localities
platform	Calculating travel time	(p.13)
	Tracking supply chains and food sector employment	

Strategic interest	Learning through a living lab	Concepts
	Understanding where spending goes via local food suppliers	Potential forms of economic benefit (p.19)
	Promoting the food sector as 'smart development' in Monmouthshire	Proximity (p.13) SFSCs (p.12)
Enterprise strategy	Skills and business services, including for preparing SMEs for procurement requirements and DPS	Potential forms of economic benefit
	Identifying and strengthening local supply chains and activating business networks	(p.19)

Section summary

Putting local food on the public plate involves both challenges and opportunities. Simply procuring locally will not have transformative results. Rather, procurement should be part of a broader strategy for the food and farming sectors, that **supports sustainable goals by pursuing a diverse mix of local, national and international markets.**

A strategic approach should not *automatically* valorise either local produce or short supply chains. Instead, **explicit goals** – including for sustainability, quality and safety – should be used to guide good choices. **Developing a Dynamic Procurement System (DPS)** offers one means of doing so, with particular opportunities for the small producers that local sales best help.

Importantly, procurement markets are not limited to Monmouthshire's own public plate. There are **opportunities to extend the size of the public plate** by involving more organisations, and also to **supply other towns and counties that Monmouthshire is local** *to*. It is also important to consider the people and businesses who process, transport and sell food in Monmouthshire. Procurement should **aim to maximise economic benefits**, including for the 'missing middle' in supply chains, while **avoiding unintended negative consequences**.

An overall approach to procurement in Monmouthshire should bring together a sustainable food strategy, business and enterprise support, and a food and farming sector data platform. The recommended method of **developing a 'living lab' for food** in Monmouthshire provides a way to innovate, experiment and evaluate, and track changes over time.

Putting local food on the public plate: Summarising the key points

- Procurement can provide local routes to market, but should be part of a wider food strategy in which purchasing decisions are made by goal not (only) geography.
- Sustainable food choices should be paired with diverse markets to promote resilience in the food and farming sectors.
- Key challenges for procurement include nutrition, food safety, price and logistics.
- Key opportunities include supporting SMEs, routes to market, the foundational economy and the 'missing middle' in supply chains.
- Procurement sits at the junction of food, enterprise and data strategies.
- Living lab methods can track results in Monmouthshire following changes to procurement.

7. Glossary

Concept	Definition
Boundary	Boundary measures of 'local' keep production and consumption within defined borders, like those of a county or region.
Direct economic benefits	Monetary benefits received by producers for sales.
Foundational economy	Provides the basic products and services we all need in our daily lives.
Import substitution	The economic development strategy of substituting imported products with local products.
Indirect economic benefits	How money from sales spreads to others, such as suppliers and staff.
Induced economic benefits	Accrue from direct and indirect benefits through income, spending and multiplier effects, e.g. a change in average household income.
Living lab	A place-based form of experiment and action research.
Local food	Food consumed near to where it is produced.
Locality food	Foods labelled and marketed according to where they are produced.
Local trap	The false assumption that local food is always, automatically better.
Postcode localism	Simply measuring local spend by a supplier's postcode.
Provenance	The geographical origin of a food product.
Proximity	A measure of distance in geography, supply chains or relationships.
Radius	Radius measure the geographical distance between production and consumption from a central point.
Short Food Supply Chain	The foods involved are identified by, and traceable to a farmer. The number of intermediaries between farmer and consumer should be 'minimal' or ideally nil.
Sustainable food system	Provides food security and nutrition for all in such a way that the economic, social and environmental bases to generate food security and nutrition for future generations are not compromised."
Terroir	A term from French winemaking, describing how local geology and microclimate affects crop flavours.

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