



Rural-Urban Outlooks: Unlocking Synergies (ROBUST)

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Snapshot: Expressions of Urban – Peri-Urban – Rural Relationships

Agri-food innovations

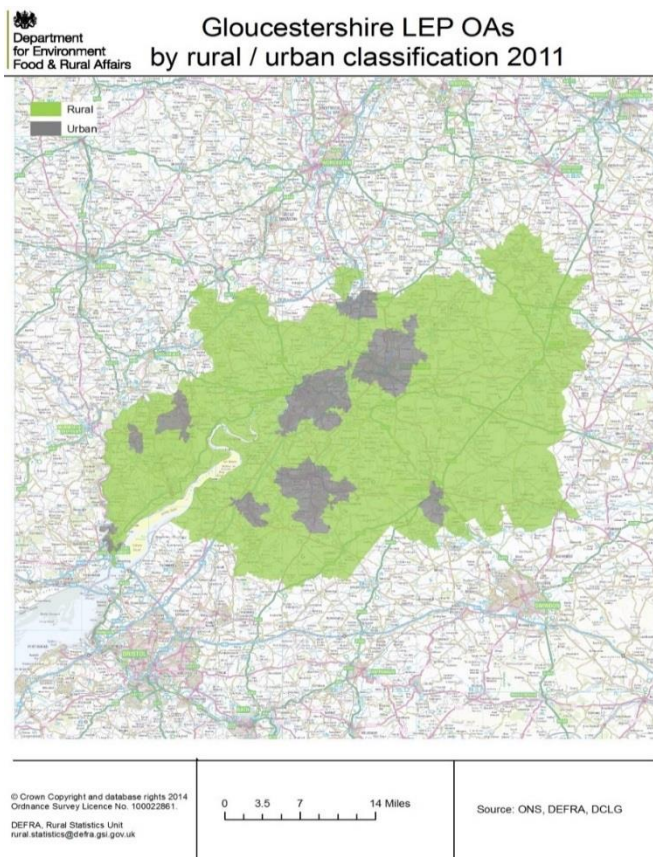
Gloucestershire, UK

1. Brief Description

This snapshot frames agri-food innovation as an expression of urban-rural relations in Gloucestershire.

1.1 Food sector economy

Figure 1 – Map of rural and urban classification in Gloucestershire (Source: Defra)



Gloucestershire County Council (GCC) data (2016)ⁱ indicate that 19,700 people work in the food sector, employed across 3,565 businesses (12% of all local businesses and 7% of all local employment (JSNA 2017ⁱⁱ)). Of these, the majority – 3,145 or 88% - are micro enterprises with up to nine employees. A further 11% are classified as small enterprises of 10-49 employees. Most jobs (almost 17,000 - NOMISⁱⁱⁱ) are in food service. In 2014 tourists spent £330.8million in the county, contributing around 10% of tourism spend on food in the south west of England region^{iv}.

Data show 1.2% of jobs in Gloucestershire (GCC 2016) (or 3,000 people) are in food manufacturing and processing. A third of these are employed in liquid milk and creamery

processing and a little over a quarter are involved in bakery production. Other sectors include ice cream production (400 employees), processing and preserving meat and fish (715) and

butter and cheese production (125). Ten major supermarket companies have a total of 75 branches in the county.

Between 2015 and 2025, the accommodation and food services sector is anticipated to grow by 19% in Gloucestershire, compared to 4% for England as a whole. This contrasts however, with agriculture (down 18%, almost double the England prediction), as well as manufacturing – which includes but is not exclusively food - (down 9%) and wholesaling (down 13% and in marked contrast to +8% for England) (Economy of Gloucestershire 2015^v).

1.2 Agricultural land use

About a quarter of a million hectares - 75% of the county - is managed as commercial farmland of moderate quality (70% is grade 3, (Somper 2006^{vi})), on around 3,000 agricultural holdings. A majority – 59% - of the land is owned by the farmers managing it. Sixty per cent is managed as grassland, about a quarter is used to produce cereals. Less than 1% of agricultural land is devoted to horticulture (NFU Gloucestershire^{vii}).

Almost 6,300 people (Defra 2016^{viii}) are directly employed in agriculture (although this includes an overlap with the employees outlined in 1.1 above), which remains a major land use sector within the county. Most holdings cover under 50ha. About 42,000ha of land in the South West are organic or in conversion in 2016 (Defra 2016^{ix}), although this has fallen from its peak of over 90,000ha in 2006. The Prince of Wales' residence and organic farm, Highgrove, is also located in the county.

2. Questions and/or Challenges

- > Question: What kinds of food sector innovations are best able to deliver rural-urban synergies and circular economy outcomes in Gloucestershire?

Innovation – social, technical and entrepreneurial - is highly evident in Gloucestershire's food sector. This includes:

- investment in agri-tech transition and processing
- on-line marketing and logistics consolidation
- sustainable public procurement
- as well as creative ways to finance start-ups and reinvestment of food sales into urban social projects.

Do these developments simply reflect the needs of parallel industrial sub-sectors, or can closer connections between food sector innovators foster a circular economy of materials?

3. Main Insights

3.1. Indications of the application of the new concept of 'New Localities'

3.1.1 *Local food within the county*

Substantial areas of the county are covered by a landscape designation called *Area of Outstanding Natural Beauty* (AONB), which is subordinate in status to national parks. There are three AONBs within Gloucestershire:

- the Cotswolds (which covers over half the county)
- the Wye Valley (straddling the English Welsh border)
- and a small section of the Malvern Hills.

Landscape associations offer marketing advantages for local producers. Morris and Buller 2003^x outline principle products of Gloucestershire's local food sector. Some carry protected origin designations including Single Gloucester cheese (PDO), Gloucester Old Spot pork (TSG), and Gloucestershire perry (PGI). Remnants of traditional practices, such as elver and salmon fishing on the River Severn, persist.

Quasi-public land managers with an interest in food production and marketing include the National Trust and Gloucestershire Wildlife Trust (GWT). Both organisations are agricultural landholders and earn income from agri-environment subsidies. Their tenants are encouraged to raise sustainably-produced food. An example of this is Simon Weaver, a producer of organic Single Gloucester Cheese and whose cattle graze a GWT nature reserve. GCC is one of a few English county councils that retain an agricultural estate, of around 2200ha, managed by tenant farmers (GCC 2016^{xi}).

3.1.2 *Food beyond the county*

The farm shop and café at the M5 Gloucester Services offers 130 products sourced from within 30 miles. The Services employ over 140 people, of which c. 40 in retailing^{xii}. The business harnesses transient custom on Gloucestershire's north-south motorway network to distribute local food beyond the county's borders. A distinctive element of the business is that a proportion of sales income is redistributed via the Gloucestershire Gateway Trust (GGT), towards community projects and charities in the county.

Global food corporation Unilever produces ice cream in its factory near Gloucester. It has publicised commitments to reduce GHG emissions from its refrigeration equipment, to source fair-trade cocoa and to reduce the calorie content of its products^{xiii}.

Organic food businesses have expanded into regional markets by highlighting local quality, including Stroud Brewery, which raised £1million through community shares^{xiv}. Shipton Mill organic flour has a turnover of £16.5 million and employs over 50 staff (Companies House).

Several local manufacturing companies are involved in national and global marketing. For example, the wholesale food service company Creed is the county's largest food company with 188 staff. The SFC wholesale drinks group has a turnover of £23 million but only 9 staff.

Other important food companies in the county include Collicut meat wholesale at Cheltenham (£18.25m t/o) and Muller's dairy manufacturing plant at Stonehouse^{xv}.

3.2. Insights related to the broad area of 'Smart Development'

3.1.1 Hi-tech smart development and regional growth

Farm 491 is a new innovation hub based at the Royal Agricultural University (RAU). It offers start-up space for agri-tech companies, including technology, business and investment networks, research data and training. The hub aims to support 200 new agri-tech jobs by 2022. (See <https://farm491.com/>)

In Somerset, 30km south of Gloucestershire, a new South West Food Innovation Centre is under construction, in a dedicated £9m Enterprise Zone situated close to the M5 motorway. The Innovation Centre is likely to benefit Gloucestershire and other regional food producers and related SMEs, which will be able to use or supply the food processing and logistics facilities. (See <https://www.foodworks-sw.co.uk/>)

Campden BRI¹ is a technical services company which provides scientific, technical and advisory services around product innovation and food safety. (See <https://www.campdenbri.co.uk/>)

3.2.2 Social and technical innovations in public food

Food in the health sector

The Gloucestershire Hospitals NHS Foundation Trust is responsible for the operation and management of three of Gloucestershire's major hospitals. The Trust has developed a number of strategic documents dealing with food procurement within its establishments. Its 2015 Health and Well-being Strategy^{xvi} indicates local sourcing is also outlined as a targeted action towards the objective of healthy eating (p.23).

More specifically, the Food and Drink Strategy 2015-18^{xvii} sets out three priority areas of action, including '*sustainable procurement of food and catering services*'.

The Food Strategy commits the Trust to *sourcing* foods of high sustainability (e.g. animal welfare) and nutritional standards, as well as ensuring that catering *operations* (e.g. energy use and waste) are sustainable. The latter is an issue of particular significance outlined in the Trust's Sustainable Development Management Plan 2015-2020^{xviii}, which shows that 71% of the Trust's carbon emissions relate to procurement activities.

School meals

The quality and sustainability of food in schools has been the focus of public policy, campaigning and academic attention for some time^{xix}. Gloucestershire was an early pioneer

¹ <https://www.campdenbri.co.uk>

in the field and solidified sustainable/local procurement in its 2008 county food policy *Gloucestershire Food Vision*.

There are 296 public-sector schools in Gloucestershire^{xx}. The existing GCC Sustainable Procurement and Commissioning Policy statement connects food and sustainability by committing the council to procuring *'resilient goods and services, taking into account food security, energy security and the impacts of climate change'*. School food in the county has achieved the Soil Association's Food For Life^{xxi} Gold Award, which signifies high proportions of organic local and healthy food and a positive menu setting and dining culture.

Social food projects

Some local areas fall into the top two deciles of multiple deprivation. One of the consequences of low income is food insecurity and the county has many food assistance schemes. Food banks in Gloucester^{xxii}, Cheltenham^{xxiii} and the Forest of Dean^{xxiv} together provided over 11,000 3-day emergency food supplies in 2017.

3.3. Other insights that could be relevant for further work

3.3.1 Waste

Strategic waste management is carried out via the Gloucestershire Waste Partnership (GWP). The Joint Municipal Waste Management Strategy 2007-2020^{xxv} indicates that around 68% of the waste stream was biodegradable, of which almost 34% is organic, comprising 20% domestic, and over 13% from commercial catering (p.8).

Following the introduction, between 2009 and 2016, of kerbside food waste collection, the quantity of food being converted to compost or treated by anaerobic digestion has increased. Figures to the end of 2017 anticipate a collection of 70kg of food waste per household^{xxvi}.

The latest available GCC Authority Monitoring Report^{xxvii}, indicates three composting plants are located in the county, processing at that time 132,000 tonnes of mainly (88%) municipal waste, including food. The remainder (12%) was commercial food waste.

Using 2011 census figures for Gloucestershire households (c. 255,000), it can be extrapolated that around 33,654 tonnes of food waste are collected by local authorities annually in the county (53% domestic, 47% commercial).

Public awareness campaigns, such as WRAP's² *'Love Food Hate Waste'* Campaign, support consumers, businesses and local authorities to cut food waste. WRAP also coordinates voluntary actions across the food commercial supply chain, through the Courtauld Commitment³, to reduce the cost of food production and distribution. Signatories, including GWP, commit to a reduction of one-fifth in the resources needed in the supply chain between 2015 and 2025.

² Waste & Resources Action Programme www.wrap.org.uk

³ <http://www.wrap.org.uk/category/initiatives/courtauld-commitment>

4. Data Sources and Indicators

Much data is locally generated, especially by GCC and the LEP.

Table 1 Data / Indicators for Example 1

Data / Indicator	Source
Agricultural land use and production statistics	DEFRA
Numbers of employees	JSNA, GCC/NHS
Business Turnover	Economy of Gloucestershire, GCC, Lists of leading companies compiled by local media.
Predictions in growth (e.g. of investment, employment etc.)	GFirstLEP
Food waste recycling rates	GJWP
Proportion of schools included in the Food for Life catering scheme.	GCC

5. Critical Appraisal of Data Use

The data sources reveal different emphases, for example that the food sector is an important and growing part of the local economy, but within certain subsectors. The biggest food manufacturing companies between them represent a high turnover but employ a marginal proportion of the county's workforce. Agricultural production remains an important activity in the county and benefits from the land use restrictions linked to the AONBs, as well as the north-south transport networks which connect Gloucestershire to adjacent cities. Food innovation is substantially directed towards hi-tech, but also through social innovations among smaller enterprises, which can draw on locality and landscape qualities.

6. References

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- ^{vii} NFU South West (undated) Gloucestershire - Farming Figures. NFU, Exeter.
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- ^{xii} GLAMUR interview 4th December 2014.
- ^{xiii} <https://www.unilever.co.uk/brands/our-brands/walls.html>
- ^{xiv} <http://www.gloucestershirelive.co.uk/whats-on/food-drink/1million-organic-super-brewery-plans-60670> Accessed 4th December 2016.
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- ^{xxi} Foodforlife.org.uk (accessed 9th Jan 18).
- ^{xxii} <https://gloucester.foodbank.org.uk/> accessed 12th January 2018.
- ^{xxiii} <https://cheltenham.foodbank.org.uk/> accessed 12th January 2018.
- ^{xxiv} <https://theforest.foodbank.org.uk/> accessed 12th January 2018.
- ^{xxv} Gloucestershire Waste Partnership (2008) Joint Municipal Waste Management Strategy 2007-2020. GWP, Gloucester.
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