



Good Food **STIRLING**



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We would like to dedicate this Good Food Stirling report to Bernard Barker who contributed a huge amount to the local food scene in Stirling. Bernard worked tirelessly and with endless enthusiasm to develop and create more opportunities for more people to get access to good local food. Through his involvement with Forth Valley Food Links; with Forth Environment Link; his commitment, along with his wife Hilary, to running Stirling Farmer's Market; and as an individual who wanted to see positive change, Bernard was a standard bearer for good food.

INTRODUCTION

Stirling' has an opportunity. It could soon be renowned for its dynamic food culture, as a place where everybody enjoys good food and a healthy diet, a region where conservation and food production go hand in hand, where wildlife is thriving and food growing and shared meals are bringing communities together.

Stirling's recently awarded City Deal signifies a chance to transform the region.² It provides an opportunity to invest in people, and enable everyone to develop new skills and lead fulfilling lives. Stirling could be ambitious and raise expectations; advancing a truly inclusive and dynamic society where everyone feels empowered in their lives and their communities.

Food should not be underestimated as an essential vehicle for this transformation. It joins together Stirling's economy, environment and society. It touches every aspect of life, from jobs to culture, health to natural surroundings.

Creating a food system that provides enough nutritious food for everyone in the region is achievable, and will result in many other benefits too. Developing Stirling's local food economy will create jobs with employment that offers creativity, connection with the local community and continual professional development. Promoting local food, produced in ways that support ecosystems, will protect natural resources for generations to come. A local food system is a cultural asset for Stirling, which will allow residents and visitors alike to enjoy delicious food.

Due to the externalisation of costs in the current, globalised food system, local food is, or perceived to be, more expensive. However,

given the health, environmental, social and employment benefits of local food, Stirling should invest in supporting everyone to access it. The reward will be a more resilient, fairer and healthier society.

The Scottish Government has already demonstrated a commitment to becoming a 'Good Food Nation'³ and plans to introduce a Good Food Nation Bill. It has outlined six objectives for Scotland:

- People who serve and sell food - from schools to hospitals, retailers, cafes and restaurants - are committed to serving and selling good food.
- Everyone in Scotland has ready access to the healthy, nutritious food they need.
- Dietary-related diseases are in decline, as is the environmental impact of our food consumption.
- Scottish producers ensure that what they produce is increasingly healthy and environmentally sound.
- Food companies are a thriving feature of the economy and places where people want to work.
- Other countries look to Scotland to learn how to become a Good Food Nation.

See references on page 54.



Gillian Mackay, Ardunan Farm



Stirling could lead Scotland in committing to a new food system; it has an opportunity with the City Deal to invest in its population and develop a reputation as an amazing place to live and visit.

This will need leadership, partnership working, and ambition. Stirling is not starting from scratch and already has many thriving food enterprises and initiatives. It is small enough to facilitate effective collaboration across sectors and across the region, but big enough to draw on people with a diverse range of skills.

Ambition will need to be supported with investment. Creating opportunities that enable individuals, businesses, public bodies and communities to join the dots will enable initiatives to be greater than the sum of their parts.

This report outlines what is happening in Stirling's food system at the moment, and presents ideas for the future. It is divided into five sections, following the Good Food Nation framework: Prosperity, Social Justice, Health, Environment and Knowledge. However, this structure does not accurately reflect the nature of the food system; it is important to remember that it is a system and cannot effectively be separated into constituent parts. Mechanisms will pull on multiple levers at

once; therefore recommendations for action to develop Stirling's food system may appear in several sections. Programmes can support local businesses whilst addressing health challenges, or improve the natural environment whilst promoting knowledge about the food system. For clarity, there is a summary of recommendations on pages 49-51.

Achieving a transformation will require taking a whole system approach, understanding how each element impacts on another, and forging solutions that are coherent with the big picture.

The big picture is bigger than Stirling. This document focuses on opportunities for change at a local level: what Stirling can do in order to feed its population well, whilst looking after its natural environment. However, it will be local outcomes that fulfil national and international ambitions. Stirling cannot only inspire other regions in Scotland, becoming a beacon of a Good Food Nation; it could also support progress on the UN Sustainable Development Goals. Moving towards a more localised food system in Stirling, which includes mutually beneficial trade relationships, can contribute to the UN goals to end poverty, protect the planet and ensure prosperity for all.⁴

See references on page 54.



WHERE WE ARE

Imperatives for action

EACH WEEK, THE POPULATION OF STIRLING SPENDS AROUND

£2,500,000

ON HOUSEHOLD FOOD AND DRINK (EXCLUDING ALCOHOL).

But...

AROUND 95% OF GROCERY SHOPPING

is done in supermarkets, which leaves local producers and processors unsupported.

74% OF SCOTS SAID THAT THE most convenient food TO BUY OUTSIDE OF THE HOME IS USUALLY THE least healthy

There is only **ONE** fruit and vegetable shop on Stirling's high streets.

3217 CHILDREN IN STIRLING live in poverty AFTER HOUSING COSTS.

That's nearly the capacity of Forthbank Stadium



LESS THAN 1% OF STIRLING'S ARABLE LAND IS USED TO grow vegetables

IN 2016 START UP STIRLING SUPPORTED 1,900 PEOPLE WITH **103,000 EMERGENCY MEALS**

Meanwhile Stirling households produce approximately

9,900 TONNES OF FOOD WASTE EACH YEAR.

That's 32 bin lorries

ONLY ONE FOOD BUSINESS IN STIRLING is a registered Living Wage Employer



4,490 RESIDENTIAL PROPERTIES WITHIN THE FORTH LOCAL PLAN DISTRICT WERE IDENTIFIED AS BEING AT RISK OF FLOODING.



Agriculture is the major cause of soil compaction; healthy, well-functioning soils are crucial to reducing the risk of floods and maintaining our capacity to grow food into the future.

PROSPERITY

“Food companies are a thriving feature of the economy and places where people want to work.”

“People who serve and sell food from schools to hospitals, retailers, cafes and restaurants are committed to serving and selling good food.”

A thriving local food system could play a decisive role in fulfilling Stirling’s ambitions to be a prosperous and inclusive city region.⁵ Developing a more localised food system holds opportunities not only for job creation and local economic growth, but community cohesion and stronger connections between the city and rural areas.

Stirling isn’t an island; it is part of a highly integrated global food system, which brings benefits to the population in terms of choice and convenience in accessing diverse food. However, without compromising these advantages, there are opportunities to develop localised supply chains that will support producers, processors, retailers and consumers in Stirling and generate employment in the food sector and beyond. A more localised food system is advantageous not only in terms of increasing local prosperity it also offers more resilience in an increasingly unpredictable global environment.

Money spent in the local food system is re-spent several times locally; buying local produce from local shops contributes to the incomes of people in the community, who in turn spend their incomes within the community, bringing a multiplied benefit to the local economy. Although this multiplier effect is documented through some research⁶, the number of variables and lack of consistency with what is included make it difficult to define the extent of the economic multiplier for local food systems. One estimate that is often used is from the New Economics Foundation, which found that £10 spent in a local food outlet could contribute £25 to the local economy, a local multiplier of 2.5.⁷

Each week, the population of Stirling spends around £2,500,000 on household food and drink (excluding alcohol). It spends a further £880,000 on food and non-alcoholic drinks outside of the home.⁸ Moving a small amount of this total of £3,300,000 into the local food system would result in a significant contribution to local economic growth.

**£10 SPENT
IN A LOCAL FOOD OUTLET
could contribute £25
to the local economy**

See references on page 54.

**EACH WEEK,
the population of Stirling spends
£880,000
ON FOOD AND NON-ALCOHOLIC DRINKS
OUTSIDE OF THE HOME**



Research undertaken by the Campaign to Protect Rural England found that supermarkets employed one person for around every £141,000 turnover, whereas shops that sold at least 25% local produce employed one person for every £48,000 of revenue.⁹ Consequently diverting 5% from supermarkets to stores selling some local produce would result in 45 more jobs in the retail sector alone, with additional contributions to local production, processing and distribution.

The food sector is a major employer in Stirling. In the agricultural sector there are 644 occupiers and spouses of farm holdings, with 265 full-time employees, 151 part-time employees and 66 casual and seasonal workers.¹⁰ 5,000 of the 45,000 jobs in Stirling are in Accommodation and Food Service activities (11.1% compared to 8.2% in Scotland as a whole).¹¹ In 2014, ONS calculated that 20.5% of employee jobs in Stirling were paid less than the living wage,¹² with Accommodation and Food Service known to be the sector with the highest proportion of

jobs that do not pay the Living Wage and use zero hour contracts.¹³ Only one of the hundreds of food businesses in Stirling is registered as a Living Wage Employer (Bespoke Catering).¹⁴

As outlined in the Scottish Government’s Good Food Nation objectives, working in the food sector should be valued and entail a commitment to producing, selling and serving good food. Stirling could make use of its skilled population and develop a reputation for high-quality food. With current uncertainty in the agricultural sector, now is the time to offer alternative ways of distributing, selling and preparing food that meet the needs of farmers, food processors and everyone working in the food sector.

A vibrant, diverse local food economy would both be an asset for the local population and a motivation to visit Stirling. This section will look at what Stirling eats, the food retail environment, local processing facilities and local production to consider what would be needed for Stirling to produce more of what it eats and eat more of what it produces.

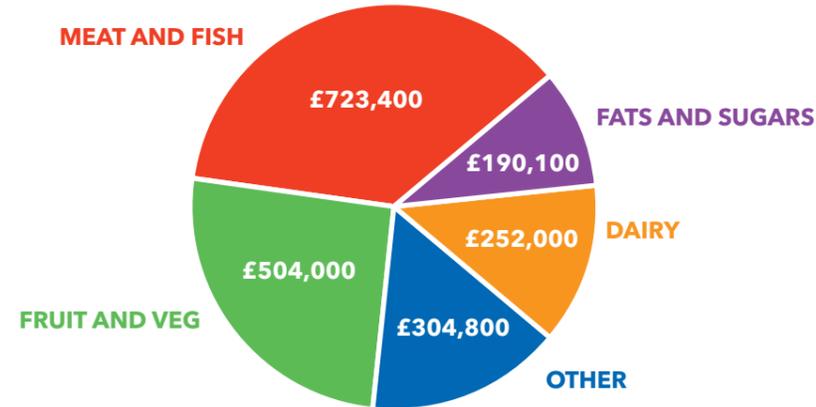
**The food sector
IS A MAJOR EMPLOYER
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See references on page 54.

**5,000 OF THE
45,000 JOBS
in Stirling are in Accommodation
and Food Service activities**

What does Stirling eat?¹⁵

Each week the population of Stirling buys for household consumption:



MEAT AND FISH: £723,400

- **£126,800 (14,700 kg) of carcass meat**, (including 9,800 kg/£93,00 of beef, 1,200 kg/£12,000 of mutton and lamb and 3,700 kg/£21,600 of pork)
- **£484,800 (74,100 kg) of non-carcass meat and meat products** (including 13,600kg/ £70,000 of uncooked chicken, 4,900 kg/£23,500 of pork sausages and 17,200kg/£104,400 of ready meals and convenience meat products)
- **£111,800 (11,400 kg) of fish**

FRUIT AND VEG: £504,000

- **£125,000 (58,200 kg) of fresh and processed potatoes**
- **£182,000 (84,000 kg) of fresh and processed vegetables** (excluding potatoes)
- **£197,000 (94,000 kg) of fresh and processed fruit**

FATS AND SUGARS: £190,100

- **£50,000 (14,200 kg) of fats** (including 4700 kg/£24,000 of butter and 4400 litres/£9,300 of vegetable and salad oil)
- **£19,000 (9,300 kg) of sugars and preserves**
- **£121,100 (14,400 kg) of confectionary**

DAIRY: £252,000

- **£158,000 (161,600 litres) of milk** (milk and milk products, excluding cheese)
- **£67,000 (9200 kg) of cheese**
- **£27,000 (8,245 kg) eggs** (around 164,900 eggs)

OTHER: £304,800

- **£116,000 (54,000 kg) of bread**
- **£5300 (2,400 kg) of oatmeal and oat products**
- **£39,400 (11,100 kg) of breakfast cereals**
- **£17,500 (7,400 kg) of pasta**
- **£48,600 (7,100 kg) of pizza**
- **£78,000 (16,600 kg) of biscuits**

Each week, outside the home, the population of Stirling consumes:

- **7780 kg of meat and meat products**
- **950 kg of fish and fish products**
- **230 kg of cheese** (including quiche and cheese pies and pasties)
- **960 kg of pizza**
- **750 kg of eggs** (around 15080 eggs)
- **5840 kg of potatoes** (including 4071kg of chips)
- **2840 kg of vegetables**
- **1200 kg of salads**
- **620 kg of rice** (including fried rice, risotto and other cooked rice)
- **530 kg of pasta**
- **540 kg of soup**
- **780 kg of fruit** (fresh and processed)
- **220 kg of yoghurt and fromage frais**
- **630 kg of bread** (including rolls, garlic bread, croissants, but excluding sandwiches)
- **5960 kg of sandwiches** (including 3586 kg of meat/fish-based sandwiches, and 2395 kg of cheese/egg/vegetable-based sandwiches)

See references on page 54.

Where do people in Stirling buy their food?



Current picture¹⁶

 **15 major supermarkets**, and a further **87 smaller convenience stores**, grocery shops and newsagents selling some food items.

 **19 bakeries**, including those that sell household bakery items and items to be eaten on the go.

 **19 butchers**

 **14 confectioners**

 **Nine delicatessens**

 **One fruit and vegetable shop**, and additional community projects supplying fruit and vegetables.

 There is **no permanent fishmonger** in Stirling, but street traders selling fish supply Stirling.

 **Three permanent farm shops**; Stirling Food Assembly; three Farmers Markets, and some direct farm delivery services, including a veg box scheme.

See references on page 54.

Looking forwards

According to Leigh Sparks, Professor of Retail at Stirling University, although out-of-town supermarkets and hypermarkets continue to dominate the grocery market, there are some shifts in the pattern of retail and the future is uncertain. A trend towards smaller, high street supermarkets, the rise of discount stores and an increase in internet shopping all feature in the shifting configuration of the grocery retail market. Consumers are looking for convenience and experience in retail.¹⁷

Catering to consumers who are interested in a different experience of grocery shopping has been where local food retail has thrived, for example Stirling Farmers' Market has been running for the last 23 years. Other newer options such as the Food Assembly or a Food Hub which take advantage of the Internet to promote convenience for producers and consumers alike can also provide a central distribution point while maintaining a social dimension to food.

This infrastructure could further support availability of local food on the high street. Stirling could look to reclaim urban centres for creating a sense of community around food, where it is easy, interesting, and fun to do food shopping.

Caterers, cafés and restaurants



Current picture

There are 400 cafes, snack bars, street traders, caterers, canteens, takeaways public houses and restaurants in the Stirling Council area preparing food for people outside of the home. (This figure increases to 580 companies if hotels and B&Bs are included).¹⁸

It is estimated that £435,000 is spent each week on café and restaurant meals in a five-mile radius of the city centre.¹⁹ Across the Stirling region there are a number of cafes and restaurants, which already specialise in local food and fresh produce. However, it is still a niche market, with infrastructure to link farmers and chefs, and make it easy for caterers to use local ingredients, limited.

Stirling Council provides school meals and catering in civic buildings, totalling 900,000 meals a year.²⁰ They have the Soil Association's Silver Food for Life Catering Mark Award for meals served in primary and early years settings, but not for secondary schools or for canteens in civic buildings. This is an independently verified award, which rewards the inclusion of local, seasonal, ethical and sustainable produce.

See references on page 54.

Looking forwards

Overall, Stirling is an affluent region relative to Scotland as a whole; however, it is not noted for its café and restaurant scene. Investment in the City should look to promote a vibrant café and restaurant culture focused on short supply chains and local produce.

Restaurants, cafés and public sector catering can play an important role in catalysing some of the changes in consumption that are needed for a healthy and sustainable food system. For example, creative recipes with local vegetables can stimulate demand and encourage people to try new things. Similarly nose to tail butchering, and exposure to delicious recipes formed from meat that is usually wasted, can help shift cultural norms.

Stirling University has 12,000 students and Forth Valley College has 14,500 students in Stirling and the central belt. 28% of Stirling's workforces are employed in Public admin, Defence, Education and Health.²¹ Transforming the food offer in the public sector, with more organic, local ingredients would not only create a market and develop local supply chains, it could also result in a cultural shift and influence what people chose to eat at home.

Stirling should be aiming for at least Soil Association's Gold Catering Mark across the board in public sector catering, which includes 15% organic produce and promotes involvement of the whole community in food. In public kitchens in Copenhagen, 88% of the food served is organic, which was achieved without any increases in the food budget. Creative menus, seasonal produce, less meat and less waste can make sustainable food affordable. Catering staff will be at the heart of this transition, and providing opportunities for cooks to learn new skills, get out on to local farms and be creative with food should be prioritised.

More broadly, Stirling should be looking to encourage and reward valued and creative employment in the food sector, promoting the Living Wage and opportunities for training and development.

Processing and manufacturing

Current picture²²

MEAT

- There are **two abattoirs** in Stirling:
 - **Scotbeef** slaughter facility processes 2,500 cattle and 15,000 lambs each week.
 - **Duncan Stevenson Ltd** is a small, (certified for organic), which enables small local meat producers access to a specialised market.
- There are **19 butchers** in Stirling, 11 of which are listed as manufacturing - for example, producing artisan pies, sausages and haggis.

DAIRY

- The biggest dairy processor is **Graham's Dairy**, which produces around **2,784,480 litres of milk** each week, and supplies to all over Scotland. It currently employs 420 people.
- **Knockraich Farm** is a farm and food processing business, which has 60 cows and produces yoghurt, fresh milk, crowdie and crème fraîche.
- There are **no cheese producers** in Stirling.

FRUIT AND VEGETABLES

- There is limited fruit and vegetable processing in Stirlingshire. **Knockraich Farm** produces apple juice from their orchard of **700 apple trees**. One other company - **Bakeshaw Ltd**, is listed as producing fruit and vegetable juices.

BREAD

- Many of the bakery companies, for example **Baynes** and **Greggs**, sell bread and other savoury bakery items that are manufactured outside of the region and brought in fresh every day.
- There are a number of smaller bakeries producing bread in Stirling, for example:
 - **The Village Bakery**
 - **Mhor Bakery**
 - **Riverside Bakery CIC**
- There are other community bakeries in development, such as **Drymen Community Bakery**, and organisations which incorporate baking into their activities such as **Camphill Blair Drummond**.



See references on page 55.



CAKES, BISCUITS AND CONFECTIONERY

- This is the sector with the largest amount of micro-processing businesses. There is one larger business – **Campbells Shortbread**, based in Callander, which produces shortbread that is exported worldwide as well as sold all over Scotland.
- **IQ Superfood** chocolate is a company based in Stirling producing allergen-free chocolate.
- A number of cake micro-businesses including: **Balmaha Larder Ltd**; **Cakes by Shirley**; **Eleganza Cakes**; **Kelly G's Gourmet Bakery**; **Macgowen Patricia**; **Art 2 Eat**; **Cookroom**.

CHUTNEYS AND JAMS

- There are also a number of micro businesses making chutneys and jams within Stirling, for example, **Perthshire Preserves**, **The Wee Kitchen Company** and **Dollop and Scoff**.
- Communities at **Sunlite Café** and **Camphill Blair Drummond** are also producing jams and chutneys.

Looking forwards

Right-sized local processing can support meaningful employment and keep the whole supply chain local, making it easier to trace food from field to fork and ensure that it is high quality produce. Small-scale infrastructure can play a critical role in creating positive relationships across the food supply chain and promoting connection with our food, our environment and the people who work to get food on to our plates.

With an independent abattoir and local butchers, the meat supply chain can stay within Stirling. This should be protected as it could be extremely damaging to farmers producing meat for the local market if the independent abattoir closed. Without it, other options such as mobile abattoirs would have to be explored, which ensure short journeys to the facility and so reduce animal stress.²³

There is opportunity with dairy products for the whole supply chain to be on-farm, as Knockraich Farm in Fintry demonstrates. It has a herd of 60 Friesian cattle, and they produce

a variety of dairy products on site, including yoghurt, crème fraîche, crowdie and butter. They sell approximately 75% of their produce through wholesalers, for food service and to Waitrose. The remaining 25% is direct sales from their café or at the Stirling Food Assembly, which has stimulated demand for more products, including by-products: Katy Rodgers now sell buttermilk to Stirling Food Assembly customers.

On the other hand, producing baked goods relies on flour from outside the region. Only Mungoswells in East Lothian offers completely traceable Scottish flour.²⁴ Stirling could develop local grain processing facilities, and keep the whole supply chain local.

There is minimal fruit and vegetable processing in Stirling at the moment; innovative local processing facilities could help tackle waste in this sector, as well as stimulate demand for fruit and vegetable based products.

See references on page 55.

Wholesalers

Current picture

Wholesalers are the link between producers and independent retailers, local authorities, processors and manufacturers, cafés and restaurants. Supermarkets generally incorporate wholesaling into their businesses, working directly with producers and building their own distribution systems.

- Stirling Local Authority, and most of the independent retailers, cafés and restaurants rely predominantly on wholesalers based outside of Stirling, although many Scottish wholesalers are used.
- Similarly, wholesalers in Stirling supply to neighbouring regions, or the whole of Scotland, or beyond to the rest of the UK.
- There are seven wholesalers listed in Stirling, a mix of large corporations and independents.
 - **Booker** is the UK's largest wholesale operator, providing a wide range of produce to retailers and caterers.
 - **Batley's Cash & Carry**, similarly has a range of products from key suppliers and own labels.
 - **Caledonia's Larder** is a national specialist food company, with sole distribution rights for some Scottish products.
 - **Mushrooms Scotland** is a key supplier of mushrooms to the Scottish and UK market.
 - **John Callum Ltd Potatoes** is a family business that in the last 25 years has switched from supplying potatoes to grocery stores and now solely supplies the chip shop trade with potatoes from the eastern counties of England.
 - **D. McCallum & Son** is a fruit and vegetable wholesaler, based just outside Stirling and serving West Central Scotland.
 - **Cariel Soft Drinks** is a soft drinks wholesaler.



Looking forwards

Wholesalers are a critical link in the supply chain, allowing producers to access markets without having to build multiple relationships themselves. However, they can reduce the traceability of food and the connection between producers and consumers.

A Food Hub for Stirling could function as a wholesaler for local food, only working with farmers within a specified region and supplying the food service and retail sectors in Stirling with fresh, traceable produce.²⁵

One future role for wholesalers may be to bridge the gap between local demand and supply, building relationships with producers, and food services, to increase the join up and encourage Stirling to produce more of what we eat and eat more of what we produce.

See references on page 55.

Food production

Current picture

Stirling has 926 agricultural holdings with a fairly even size distribution.

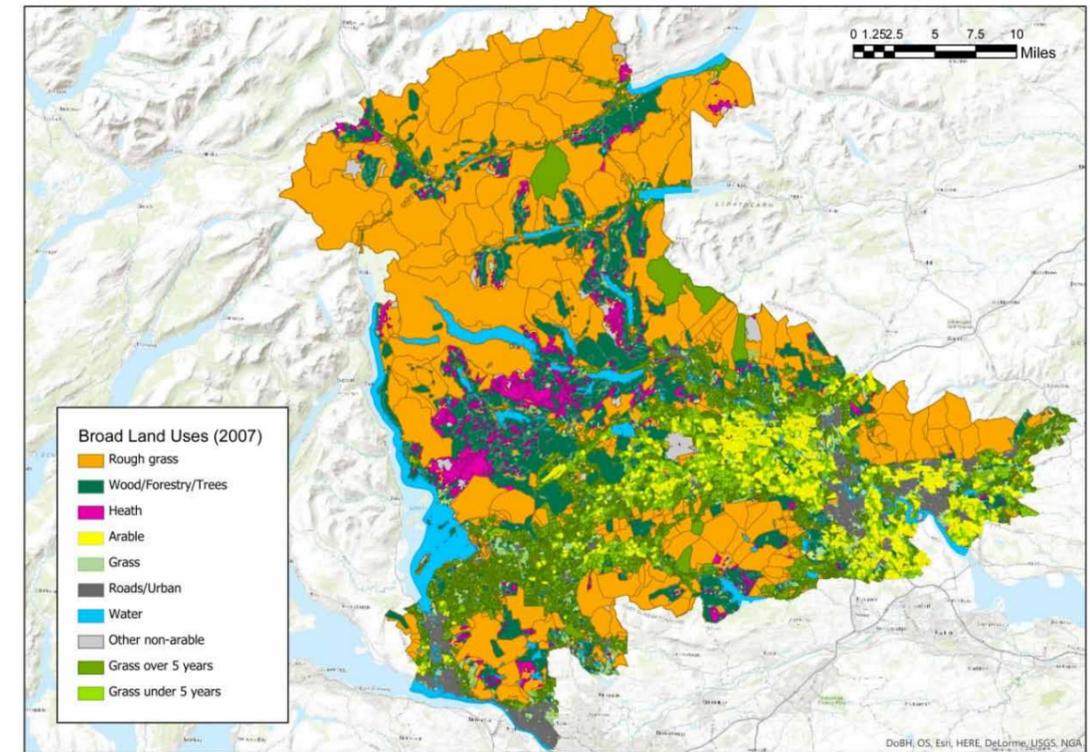
NUMBER OF HOLDINGS AND AREA, BY SIZE, IN STIRLING UNITARY AUTHORITY, JUNE 2016

Source: SG June Agricultural Census 2016. Provided by: Scottish Government RESAS.

	No. of holdings	Hectares
0-<2 ha	112	134
2-<5 ha	139	442
5-<10 ha	101	737
10-<20 ha	85	1,247
20-<50 ha	139	4,561
50-<100 ha	122	8,938
100-<200 ha	99	13,811
200 & over ha	129	124,324
Total	926	154,194



Jim and Hilary, Egglicious



Livestock farming forms a significant part of Stirling’s agricultural sector, with some grain production, predominantly for the whisky industry and animal feed, but very little horticulture. Farming in the region faces environmental challenges in the coming years. The land in Stirling has been compacted in some areas and soil degradation, an unpredictable climate, biodiversity loss, and increased risks of flooding, all pose serious risks to the sustainability of food production in the region.

There is also uncertainty for the sector as a result of Brexit and the potential end of the Common Agricultural Policy (CAP). The CAP is a subsidy scheme that many farmers rely on to stay in business. Farmers have already seen an increase in input costs as a consequence of the UK decision to leave the European Union.

Maps provided by the James Hutton Institute show the distribution in land use across Stirling.²⁶ The example shown is derived from IACS (the EU’s Integrated Administration and Control System) data for a single year. To date,

See references on page 55.

such information is available from 2000 to 2014 for each field in the region. Such maps can be used to quantify the type of farming in the Stirling region. Much of the food production occurs in the arable and grass compartments (yellow and light green) but extensive grazing is also practiced in the ‘rough grass’ compartments. It is possible by comparing maps over time to demonstrate change in broad land use patterns, but with few exceptions, the land use has been stable in the last two decades. The arable compartments can be further divided into cereals (e.g. winter wheat, winter barley, spring barley, oats), oilseeds, vegetables and legumes such as peas and beans. A further potential value of IACS data, coupled with soil maps (not shown), is to identify fields in which certain crops, such as leaf vegetables, could be grown in sequence with other crops, with the aim to estimate the total potential production of different types of food. However, this analysis is outwith the scope of the present study.

CROPS AND GRASS GROWN IN STIRLING UNITARY AUTHORITY, 2016

Source: SG June Agricultural Census 2016. Provided by: Scottish Government RESAS.

	No. of holdings	Hectares
Wheat	33	1,008
Winter barley	22	360
Spring barley	77	2,258
Oats, rye, triticale and mixed grain	68	1,547
Rape for oilseed and linseed	c	c
Potatoes	c	c
Peas and beans for combining	c	c
Stockfeeding crops	37	205
Fruit and vegetables for human consumption	12	9
Bulbs, flowers and nursery stock	c	c
All other crops	30	265
Fallow land for 5 years or less	91	785
Total crops, fallow and set-aside	191	6,524
Grass under 5 years old	250	3,935
Grass 5 years and older	723	32,829
Rough grazings	365	90,022
Common Grazing land	0	0
Total grass and rough grazing	869	126,785
Woodland	394	17,778
Other land	512	3,107
Total area	924	154,194
Utilised agricultural area	890	133,309

c - suppressed to prevent disclosure of data relating to individual holdings

The table above, provided by the Scottish Government Agricultural Statistics department, refers to the number of farm holdings that are producing crops, have an area of grassland, woodland or other land. Normally farm holdings produce many different crops, with each counted here; consequently the total number of holdings does not reflect the number of farms in Stirling.

Kate, West Moss-Side



Looking forwards

Stirling could lead Scotland in diversifying its agricultural sector, building a reputation for environmentally friendly food production, community engagement, food tourism, and short supply chains.

There is a wealth of research, ideas, and action out there for new approaches to farming that promote biodiversity and work with ecosystems. Certainly, Stirling faces certain challenges due to the weather and terrain, but these are not insurmountable.

For example, covered vegetable production, such as large greenhouses powered on renewable electricity, would allow Stirling to grow more diverse produce locally.

Providing support, training, and opportunities to enhance cooperation for farmers in Stirling could stimulate a more resilient, diverse and sustainable agricultural industry.

Sectors in focus

From retail and catering, through to wholesale, processing and production, there are many changes that could stimulate Stirling's local food system, creating meaningful jobs and local economic growth.

However, working towards the Good Food Nation ambitions for a fair, healthy, and sustainable food system in Scotland, also necessitates changes in what we eat.

According to the Government's Eat Well Plate,²⁷ which identifies a diet that is both healthy for people and the planet, the principal shifts needed are eating more

plants - including fruit, vegetables, and grains, and eating less meat.

This is not to deny that meat can be an important part of a healthy and sustainable diet, and Stirling's many farmers producing high quality meat play an important role in the food system. However, there are also opportunities in Stirling to create local economies around more of the foods that we should be eating.

The following two examples - vegetables and bread - illustrate how we could move to a more localised food system that is healthy, environmentally friendly and supports good livelihoods and wellbeing.

See references on page 55.

Vegetables

Stirling could create a thriving horticultural sector and make it easy for the whole population to eat at least 5 portions of fruit and vegetables a day.

The population of Stirling, like the rest of the UK, are not eating enough fruit and vegetables. A decade of consumer messaging around 5 a day, has resulted in a good level of knowledge that this is what we should be eating, but almost no change in actual consumption levels.

The World Health Organisation and Scotland's Eat Well Guide recommend 5 portions of 80g of fruit and vegetables a day.²⁸ In addition to vegetable consumption improving health and protecting against some diseases,²⁹ eating an extra portion of vegetables each day and eating a little less meat consumption could reduce diet-related greenhouse gas emissions by 17%.³⁰

Taking this recommendation, Stirling should consume

AROUND 13,550 TONNES OF FRUIT AND VEGETABLES A YEAR

A conservative estimate of outdoor vegetable production is 20 tonnes a hectare. This would mean Stirling would need 678 hectares in horticulture to provide the required fruit and vegetables for the region. This equates

to around 10% of Stirling's arable land. Certainly, Stirling will continue importing fruit and vegetables, but with some commitment and creativity a lot more could be produced locally. Investing in covered greenhouses, powered by renewable energy, could significantly increase the growing season and allow more diverse produce.

Promoting organic production in Stirling would deliver positive environmental outcomes and have also been found to maximise health benefits, including increased antioxidants.³¹

In addition to jobs is horticultural production, a more developed horticultural industry in Stirling could stimulate jobs in fruit and vegetable processing. Businesses making soups, juices, and baby food could be established to make best use of the locally grown produce, and potentially help address issues of food waste.

In addition to physical health benefits, growing fruit and vegetables has been shown to improve mental health and support community cohesion. There are a wide range of growing projects across Stirling from allotments to community gardens, these should be supported to encourage inclusive, diverse and empowering communities.

Next steps

- Make veg growing a priority in Stirling; reach out to farmers to consider switching some of their land to horticulture. Develop a regional horticultural working group to facilitate learning and cooperation.
- Explore piloting an extension of the Healthy Start scheme, for example to include children up to 16 years old, or to ensure that vegetables are half price for everyone on low-medium incomes at all outlets in Stirling. A scheme should look at establishing more direct links with farmers and growers in the region, to support their livelihoods too.
- Work with educational institutions such as Forth Valley College to explore training opportunities for people growing, cooking and selling vegetables which bring together nutritional, environmental and practical knowledge.

See references on page 55.



Local food producers launch Harvest Festival

Bread

Stirling could develop a reputation for amazing bread, with a diverse and creative community of bakers supplying tasty and nutritious bread to the population.

The vast majority of Scotland's wheat crop goes to the whisky industry or for animal feed, with little, if any, being used to make bread. Stirling's wheat crop for 2016 was 8,770 tonnes, and followed a similar story.

Allowing for wastage, 1 tonne of wheat could make approximately 1250 loaves of white bread, and 1,700 loaves of wholemeal bread. In Stirling, only 28% of the wheat crop would be needed to make all of the loaves of bread bought in the region.

Scotland the Bread is an organisation supporting a home-grown grain economy. It has found that heritage varieties of wheat can be more resilient in Scotland's climate, provide a higher nutritional content, improved digestibility and lower allergenicity, than the grains that are being used to make most of Scotland's bread today.³²

New technologies for milling grain could also improve the nutrition in bread; Scotland the Bread are now using a Zentofan cyclone mill, which mills whole grains into cool, ultra-fine wholemeal flour. The mill wastes less of the grain, preserves more of the nutrients, and

makes fine flour that is easy to bake with. Fresh milling should be done as near to baking as possible, and this technology only works at a small scale. Consequently, it is perfect for enabling localised supply chains for community-supported bakeries.³³

STIRLING BUYS AROUND 68,700 LOAVES EACH WEEK with a significant amount of that wasted³⁴

Local, integrated supply chains supporting local people to make high quality bread would improve health, reduce waste, generate employment and contribute to culture and community. Bread made in this way would be more expensive, but Stirling could explore including nutritious bread in an extension of Healthy Start, considering the health, social and employment benefits of local bakeries.

A community baker could make around 750 loaves a week. Shifting Stirling's bread supply to nutritious, tasty, locally-baked bread could create 115 jobs in baking alone; equating to 13% of the registered unemployed in Stirling retraining as community bakers. Investing in a local mill and grain storage facilities would create additional jobs and keep the whole supply chain local.³⁵

Next steps

- Support farmers to switch to heritage wheat varieties, which would be more resilient in challenging environmental conditions, as well as make more nutritious bread.
- Invest in building a local mill and grain storage facilities, looking at opportunities to use renewable energy wherever possible.
- Launch a public education campaign about bread, highlighting the health and environmental benefits of local wholemeal bread.
- Explore including nutritious, locally made bread in a pilot extension of the Healthy Start scheme, designed to ensure that income does not prevent anybody from accessing high-quality, healthy food.
- Invest in a training programme for community bakers and millers.

See references on page 55.

What's already happening?

The local food movement in Stirling is developing rapidly, with Stirling's new Food Assembly offering an excellent example of the potential for growth.

STIRLING FOOD ASSEMBLY

Stirling Food Assembly opened in autumn September 2016 and provides an opportunity for the people of Stirling to pre-order from local producers, and to meet the farmers, bakers and cheese makers when they go to collect their order.

There are currently 35 PRODUCERS INVOLVED, OFFERING 138 LOCAL PRODUCTS to the Stirling community.

At the Food Assembly, producers receive 80% of the value of the produce, compared to just 20-50% which they would receive going through a supermarket.

The Food Assembly is based at Stirling railway station, which is attractive for commuters. However, the initiative has grown quickly

and now has 1163 members. Each week, an average of 72 people (not always the same people) purchase from the Food Assembly. Average weekly sales are £1350.00, with producers receiving an average of £1138.00.

Over 17 weeks, the Food Assembly revenue totalled £23,104 (with producers receiving £19,350). Using the NEF estimate of a local economic multiplier of 2.5, in four months Stirling Food Assembly contributed approximately £57,760 to the local economy.

The quick success of the Food Assembly indicates that demand for local produce is already there, and can be further stimulated by creating ways for consumers to access it.

RIVERSIDE BAKERY CIC

Riverside Bakery CIC is an example of a new food business that is taking a whole system approach, looking at the provenance, health and accessibility of food. They support local producers as much as possible, as well as offering training and bread making activities in the community.

Next Steps

A Food Hub for Stirling. In order to deliver prosperity across Stirling, creative approaches are needed to enhance the local food system, connecting producers, processors and consumers. Investing resources in to the development of a Food Hub could promote joined-up thinking, and support actors across the food system in different ways. It would need a large, multi-functional central location and be designed primarily to support a local food network, from skills and training to distribution and socialising.

For example, it could:

- Offer support, training and marketing opportunities to local producers, processors and retailers.
- Provide a space and facilitation support to enhance cooperation between local food sector businesses.
- Be a welcoming space for sharing ideas and developing innovative approaches to food waste, supply chain infrastructure, and other issues in the local food system.
- Function as a distribution and/or retail point to support local supply chains, including providing local high quality, traceable food to the public sector.
- Be a venue for community meals and support a lively food culture.

Support from the community

“The Stirling Food Hub will provide local food retail space in the City Centre, building on a culture of sustainable access to food. Working towards the outcomes desired by the Sustainable Stirling Partnership, the safe community space will provide educational and advice facilities that seek to deliver a lower carbon footprint for Stirling and the wider Forth Valley area.”

David Hopper, Head of Sustainability, Stirling Council

“The creation of a local food hub would be a fantastic opportunity to improve access to local produce for consumers in Stirling and the wider Forth Valley area; this initiative would benefit both consumers and local food businesses such as ours.”

Susan Rodger, Knockraich Farm Orchard



SOCIAL JUSTICE

“Everyone in Scotland has ready access to the healthy, nutritious food they need.”

What’s the issue?

Marginalised communities, and the hardships they face, are often invisible to the rest of society. The recent emergence of food banks has provided an explicit reminder of the stark issues of poverty and inequality. Although the dedication of communities and charities to provide some food in times of desperation is commended, the existence of this patchy model for ensuring people in Scotland can eat is an illustration of collective failure. Food waste and food poverty are two significant problems of our current food system, but giving poor people food that would otherwise be wasted is not a socially just response to poverty.³⁶

The Scottish Index of Multiple Deprivation (SIMD) shows that there are considerable pockets of poverty in the region. In 2016 Stirling had a larger share of the 20% most deprived data zones in Scotland than it did in 2012.³⁷ Although a growing population and changes in boundaries had an impact.³⁸ The index also outlines areas of deep-rooted deprivation, which have consistently been among the 5% most deprived in Scotland since the SIMD began in 2004, including Raploch in Stirling. In rural Stirling, there are hidden pockets of deprivation, where food poverty and social isolation are affecting people’s lives, but support services are less accessible.

Stirling has the 5th highest gender pay gap out of 32 local authorities in Scotland; average female pay is currently 15% less than male pay. Furthermore, women account for 91% of lone parents with dependent children.³⁹ 3217 children in Stirling live in poverty after housing costs.⁴⁰ In 2016 the emergency food provider Start-Up Stirling noted an increase in the proportion of children they were supporting.⁴¹ Although there are some schemes to support parents to provide nutritious food, such as Healthy Start vouchers, these only apply for children under 5 years old and the uptake rate in the Forth Valley region is 70-75%.

Quality of food is likely to be compromised when budgets are tight. Following the 2008 recession, households switched from higher quality food to prioritizing calorie density, including switching from fruit and vegetables to processed products.⁴³ The price difference between more healthy foods and less healthy foods is widening,⁴⁴ with price regularly described as the most important determinant of food choices, nutritional quality of the diet is compromised. People on low incomes spend a greater proportion of their income on food, around 18-23%, compared to around 10% for those on a higher income. However, the quality of the diet for those on low incomes is still poorer, with the relatively higher costs of a healthy diet representing a barrier to its consumption.⁴⁵

People on low incomes spend a greater proportion of their income on food:

**LOW INCOME FOOD SPEND:
18-23% OF WAGE**

**HIGH INCOME FOOD SPEND:
10% OF WAGE**

See references on pages 55-56.

What's already happening?

There are a number of projects and initiatives in Stirling to support people and families with low incomes to access sufficient, nutritious food, which are mitigating the impact of food poverty, but are not long-term solutions.

START UP STIRLING

Start-Up Stirling has been supporting homeless people in Stirling for 23 years, and in October 2012 set up Stirling's first food bank. By summer 2014, they had opened three food banks to meet the growing need for emergency food provision, as people's budgets were squeezed by government austerity and changes to the social security system. In 2016 they supported 1,900 people with 103,000 emergency meals.

At the heart of the Start-Up Stirling service is an ambition to offer some temporary relief in very difficult circumstances, through nourishing people – not only with food, but also by listening and providing a space for community. Recognising that there is a lot of stigma associated with a charity-model of food provision, Start-Up Stirling prioritises a dignified approach, and let the service be continually shaped by the ideas of the people who use it.

They work closely with Stirling Citizen Advice Bureau (and a range of other local statutory and third sector agencies) who refer people to the Food Bank and provide advice for other services and outreach.

The extent of public concern about food insecurity is evidenced by the support Start-Up Stirling receives from the local community. The vast majority of their food donations come from the general public, 63,000 kg of food in 2016. In addition, Start-Up received £15,000 in 2015 and £25,000 in 2016 for their Feed a Family for Christmas appeal. This financial support allowed not only a delicious Christmas food parcel, but supports Start-Up Stirling to purchase meat, cheese, fruit and vegetables to ensure people are receiving plenty of fresh, nutritious food throughout the year.

There is some disquiet (within the organisation and outside of it) about the service becoming

institutionalized, and the significant problem of insufficient incomes for a standard of living that affords secure access to enough nutritious food being left to charities to deal with.

In January 2016, Start-Up began a Beyond the Food Bank project, which focus on education, community development and providing pathways to further support. This is in recognition that emergency food can mitigate but not solve crises.

SALVATION ARMY

The Salvation Army provides an afternoon meal for 35-50 people every weekday, 52 weeks a year. They serve a three course meal and give everybody two pieces of fruit to take away. The food is predominantly sourced through Booker wholesaler, with the meat coming from a local farm.

Again, the organisers would like to live in a society where the service wasn't needed. However, in recent years the more and more people have come to rely on these meals as a key source of food, with benefit sanctions and inadequate rehabilitation services sited as plausible causes.

There is a strong community around the meals, which have been running Monday-Friday for the past 17 years.

FOOD AND FUN IN THE HOLIDAYS

Stirling Council is working on a new initiative to ensure children are getting enough nutritious food during the school holidays, providing a place for children and families to come together, play games and share meals.

The Council, in partnership with Start Up Stirling and Forth Environment Link, is developing a new programme of leisure and activity-based support for families with food at its core.

Ideas from around the world

In Canada, working for a socially just food system has been transformation for a community.

THE STOP: MAKING FOOD THE CENTRE OF COMMUNITY⁴⁶

The Stop is a community food hub, in Toronto, Canada. It is a provider of emergency food parcels, but has established numerous other programmes that mean it is seen as a space for community and learning, rather than the stigmatising association with food poverty.

In addition to the food bank hampers, there is a drop-in café offering delicious breakfast and lunches, including artisan sourdough loaves, all made on site. Anyone can come and enjoy a nutritious meal, and at the same time attend workshops, film screenings, arts & crafts and cooking demonstrations.

There are cooking programmes, including a men's group and a Latino group, which provide safe and inclusive spaces for people to learn new skills and feel part of a community. There is a community garden, a tool lending library, gardening workshops, free seedlings and community seed exchange, to help everyone get growing.

There is a state of the art 3,000 square foot greenhouse growing a variety of produce, which supports the programmes, the food bank, and volunteers with fresh organic vegetables.

The Stop also provides specific support for families and young people. There is a Healthy Beginnings Programme offering pre- and post-natal support for women, and a peer-led breastfeeding café. The Food Family Fun at the

Stop provides a space for parents to get together, stimulating the development of community support in the area.

The Stop organises a Farmers' Market, attracting over 1500 people each Saturday with local, organic and artisanal produce. In addition to providing market spaces that support local producers, The Stop directly spent \$123,000 on local food from Ontario farmers and distributors in 2015, boosting the local food economy.

The Stop is a crucial support, especially to those at the sharp end of poverty and social exclusion. However, embedded in their work is a commitment to tackling the root causes of inequality, as well as mitigating the consequences. The Community Action Programme empowers members of the community experiencing poverty and marginalization through building support networks, raising political consciousness and taking action.

The Stop is an example of how building community around food can have multiple benefits. They have placed dignity and social justice at the heart of their work, with impressive consequences. 91% of participants said they belong to a community at The Stop, and 84% of participants made healthy changes to their diets because of something they learned at The Stop.



See references on page 56.

Photos © thestop.org



Where are we going?

By 2030, Stirling's food system can guarantee that everybody in society is able to eat well. This means incomes are adequate for people to be able to access nutritious food with choice and dignity, and that mechanisms are in place so that nobody is anxious about where the next meal is coming from, nobody trades down on quality of food due to budget constraints or relies on charity to access basic foodstuffs.

There are broadly two ways in which the right to food can be realised. The first approach focuses on income, ensuring that everyone has adequate money. This crucially facilitates access to food with choice and dignity. Raising the national minimum wage to the living wage and aligning social security entitlements with minimum income standards are key interventions needed to ensure that everyone can access food.

"Stirling recognizes that encouraging growth and reducing poverty is a single agenda."

**Stirling City Deal,
November 2016**

In addition, mechanisms are needed that can facilitate access to nutritious food, when disposable income is lacking. This holds potential for a more structural transformation of the food system; rather than providing income to participate in the current food system, with its high toll in public and environmental health, mechanisms can be used to reconfigure the system by directly supporting producers, promoting healthy food, and favouring environmentally friendly food production.

Fundamentally, both increasing incomes for the poorest in society and exploring other ways of guaranteeing dignified access to sufficient, nutritious food are necessary to realise the right to food.

"We believe that access to sufficient nutritious food is a basic human right and that no one in a nation that is as rich as Scotland should have to access food banks"

**Angela Constance, Cabinet Secretary for Communities,
Social Security and Equalities, February 2016**

Next steps for Stirling

- Stirling Council to invest in a food and drink team who will work with departments across the Council as well as public bodies and communities, to ensure a joined-up approach to the progressive realisation of the right to food.
- Stirling Council should use procurement standards to promote the living wage, as well as working with employers across the food sector to ensure incomes are adequate for accessing enough nutritious food.
- Ensure that all agencies are promoting Healthy Start vouchers, and work with Stirling Food Assembly, Stirling Farmers' Markets and other possible distribution systems, to support local producers and farmers to accept Healthy Start vouchers and make local, fresh, nutritious food accessible for those on low incomes.
- Make spaces available for community meals and community growing, and support agencies, organisations and volunteers to develop the community food sector so that everyone in Stirling knows of a growing project and regular community meal near them.



Support from the community

"I would much rather there was not a need in Stirlingshire for our food bank services but whilst there is we will continue to strive, with the support of our local community, to ensure that those who find themselves in crisis can be supported with the offer of a listening ear along with food with our end to end provision delivered in as dignified a manner as possible."

Linda Sterry, Project Coordinator, Start-Up Stirling.

HEALTH

“Dietary-related diseases are in decline, as is the environmental impact of our food consumption.”

What’s the issue?

In Scotland all dietary goals have been missed every year since reporting began in 2001.⁴⁷ Unhealthy diets are a consequence of unhealthy food environments. The food environment is the physical and social surroundings that influence what we eat. It has been described as an obesogenic environment because it is very easy to eat unhealthily, and harder to eat healthily in Scotland today.⁴⁸ 74% of Scots said that the most convenient food to buy outside of the home is usually the least healthy.⁴⁹

The food environment is not constant across all segments of society. From adverts specifically targeted at children, to increased exposure to unhealthy food in deprived communities, the physical and social food environment intersects with other factors, such as income, to increase the risk of certain groups to overweight and diet-related diseases.⁵⁰

Being overweight or obese is the most significant risk factor for Type 2 diabetes. In March 2014, 3963 people in Stirling were registered with diabetes⁵¹ and this figure is likely to have increased. If current trends continue, almost one tenth of the population will be living with diabetes by 2035. NHS

Scotland currently spends almost £1 billion annually, or £100,000 every hour, on diabetes, 80% of this goes on managing avoidable complications. There is a growing body of evidence linking food insecurity with increased healthcare costs, and robust arguments that interventions to reduce food insecurity could offset considerable public expenditure in healthcare.⁵²

Diet can have a profound and ongoing impact on health; studies are associating nutrition in childhood with health later in life. For example, breastfeeding provides some protection against childhood overweight and obesity.⁵³ Breastfeeding provides babies with a complete source of nutrients, containing immunological substances that cannot be manufactured.⁵⁴ Less than half of babies in Stirling had been breastfed at all at the 6-8 week review, with only 34.2% exclusively breastfed.⁵⁵ Similarly, poor diet in childhood increases the chances of suffering from a range of chronic conditions later in life.⁵⁶ In Stirling, 19% of P1 children are overweight, with an overall child obesity weight of 7.6%, below the Scottish average of 9.8%.⁵⁷

Increased consumption of vegetables, with a greater variety of vegetables in the diet,



Stirling Food Assembly customers

protects against coronary heart disease and cardiovascular disease. Vegetable consumption has also been linked to protection against type 2 diabetes and certain types of cancer.⁵⁸

There is also growing evidence that diet plays a significant role in our mental health. A diet that provides adequate amounts of complex carbohydrates, essential fats, amino acids, vitamins and minerals and water, can help promote a balanced mood and feelings of wellbeing.⁵⁹ Furthermore, involvement in communities and spending time outdoors can promote good mental health and act as a

powerful tool to help vulnerable people, bring diverse communities together and encourage healthier and greener lifestyles.⁶⁰ Similarly to physical health, initiatives such as community gardens that can treat and prevent mental health problems can generate substantive savings for the NHS and create broader financial and economic outcomes along with social and wellbeing ones.⁶¹

Exercise supports healthy lifestyles; however, it is not a solution to obesity or associated diseases. The type and amount of calories consumed are far more influential in determining weight.⁶²

**In March 2014
3963 PEOPLE
IN STIRLING
WERE REGISTERED WITH DIABETES**

See references on page 56.

**ONLY 34.2%
of babies in Stirling are
EXCLUSIVELY BREASTFED**

**Diet plays
A SIGNIFICANT ROLE
IN OUR MENTAL HEALTH**

See references on pages 56-57.

**VEGETABLES
IN THE DIET PROTECTS AGAINST
coronary heart disease and
cardiovascular disease**

What's already happening?

In Stirling, there are initiatives that use food as a way to build skills and develop community; transform the food environment; and improve all round health and wellbeing.

SUNLITE CAFÉ

Sunlite Café is a local mental health charity that has been running for 21 years, supporting people to gain confidence, job skills and life skills.

There is a basic commercial kitchen, where service users and staff work together making freshly prepared food, with the menu changing each day. There is also a garden, in its second season and supplying some of the fruit, vegetables and herbs that are used in the café.

The Sunlite Café is linked into other initiatives in the community. For example, it supplies home-cooked soup to Start-Up Stirling, with excellent feedback. They also make soup for a local church community meal, and make jams and chutneys from local produce.

In the last four years, 40-50 service users have been involved, with 10 of them going on to paid employment or further education - many in the food sector.

SCOTTISH GROCERS FEDERATION - HEALTHY LIVING AWARD

The SGF are engaging with their members to increase the range, quality and affordability of fresh produce and other healthier products from across categories in convenience retail stores across Scotland, with a particular focus in areas of deprivation.

Stirling has 87 convenience stores, which are participating in the Healthy Living Award. This programme represents a positive approach of matching what is sold in shops to what we should be eating; however, it could be scaled and improved to create a real transformation of the food environment.

THE DAILY MILE

The Daily Mile was started in St Ninians Primary School in Stirling. Now children in schools across the UK are spending 15 minutes running or walking one mile every day.

Studies have shown increased levels of wellbeing and improved attainment resulting from the regular physical activity.

Ideas from around the world

Across the water, there are states in the US that have taken bold action to improve the accessibility of fruit and vegetables for those on low incomes.

WHOLESOME WAVE

Wholesome Wave is an organisation that is about ensuring that everybody - regardless of income - has access to local, fresh food. According to founder and CEO Michel Nischan 'food can fix everything'.

Initiatives include sourcing private investment to double the value of food stamps when spent at farmers' markets on locally grown fruits and vegetables. This initiative demonstrated conclusively that improving the affordability of fruit and vegetables means people on low incomes make healthier food choices. It also provides a boost to local farmers, and by extension the whole local food economy. More money is invested into farm infrastructure, more people employed and more land placed into production to meet the demand for fresh local food.

Wholesome Wave has also been working with healthcare professionals on the

introduction of a fruit and vegetable prescription programme. This enables doctors to give prescriptions to those at risk of diet-related diseases, which can be exchanged at the farmers' markets for fresh fruits and vegetables. With a prescription, people get \$30-40 a week to spend on fruit and vegetables.

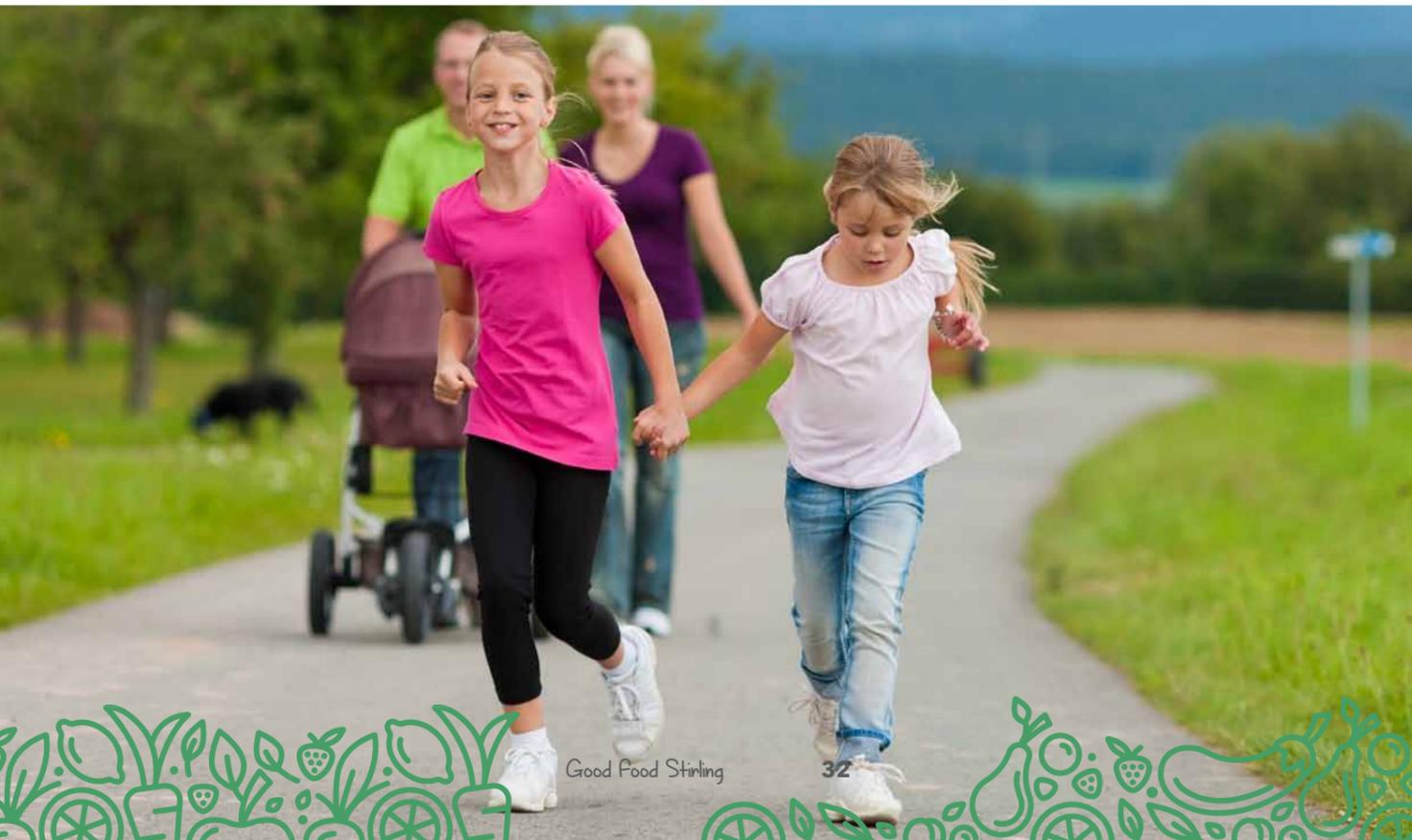
ROSE VOUCHERS

There are now initiatives in the UK taking a similar approach, Rose Vouchers are being piloted in London to support families on low incomes with vouchers purchase fresh fruit and vegetables at participating retailers including street markets, fruit and veg stalls and veg box schemes.

Families collect their Rose Vouchers at their local children's centre. This encourages them to use other health and wellbeing activities that are on offer, such as breastfeeding support, weaning workshops and play groups. There are also cook and taste sessions, to develop skills and confidence around food and cooking.



Photo © www.wholesomewave.org



Where are we going?

By 2030, Stirling's whole environment could be promoting health. From outside in the high street to inside schools and community centres, the food offer makes it easy to eat well.

Food is seen as a priority, every child eats enough nutritious food each day to facilitate learning and fun, minimising the attainment gap. The growing elderly population is supported with access to nutritious food, and everyone in between knows has reliable access to high quality, tasty and nutritious healthy food.

Food is part of a broader agenda to create healthy and sustainable urban environments; planning policies provide land for allotments and community growing, as well as promoting active travel, ensuring all the infrastructure is in place for healthy lifestyles.

"We have put regeneration at the heart of this project, ensuring that the health and wellbeing needs and employment aspirations of our most disadvantaged communities are met."

Stirling City Deal

"There is common agreement that 'prevention is better than cure' both for the individual and communities concerned and in the longer term for public finances: prevention is usually more cost effective."

Stirling Community Planning Partnership

Lettuce from Tomnaha Market Garden



Next steps for Stirling

- A weekly covered market with a subsidy scheme (such as Healthy Start) for families on low incomes. This supports everyone to access local, fresh, high-quality food as well as increasing the incomes of local farmers.
- Improve awareness around the positive effects of breastfeeding and normalise it in the local community. Every café, restaurant and workplace in Stirling to be badged 'breastfeeding-friendly'.
- Support community cafés with transport services, which can collect and drop off the elderly people and others who have mobility issues, so they can enjoy nutritious communal meals that support physical and mental health.
- Introduce a limit to unhealthy food outlets, where no more than one in ten premises can be a takeaway in any single district.⁶³
- Work with local health authorities to introduce fruit and vegetables on prescription, as well as working with GPs to signpost to community growing and cooking projects that support physical and psychosocial health.
- Ensure that Stirling's new Care Village⁶⁴ has an exemplary food environment, as well as an on-site growing project in the grounds with the mind and body benefits widely promoted.

Support from the community

"The time and effort that local volunteers are willing to give community projects has always amazed me. It's easy to get people interested when you are talking about food. Everyone eats. I know now that to make something last and to make something work, we must have the community on board. They help shape the service and they are the ones who engage with family and friends to make sure more people get involved and use the service."

Tracy Gibson, Community Development Worker, Tullibody Healthy Living

See references on page 57.

ENVIRONMENT

“Scottish producers ensure that what they produce is increasingly healthy and environmentally sound.”

What's the issue?

The environmental impact of our food supply also provides an urgent imperative for making significant changes. Without transforming how we do food we cannot make the progress needed to tackle climate change, support wildlife and use natural resources sustainably.

Agriculture and related-land use accounts for 23.4% of Scotland's greenhouse gas emissions.⁶⁵ Crop production relies heavily on chemical fertilisers and pesticides, with considerable impact on ecosystems, with approximately 1,600 to 1,700 tonnes of pesticide active substances used in Scottish agriculture each year.⁶⁶ In addition to direct contamination, these chemicals are also found in various concentrations outside the treated area. The run off into surrounding soil and water sources provides multiple routes for chronic exposure, to the detriment of ecosystems and wildlife health.⁶⁷

Diffuse pollution and the loss of natural habitats due to agriculture have an impact on Scotland's biodiversity. Birds are considered to offer a good indication of the health of an ecosystem; in Scotland nine species of once common birds have seriously declined,

including a 77% reduction in kestrels, 58% fewer lapwings and 49% fewer curlews.⁶⁸

Agriculture is the major cause of soil compaction. Soil compaction results in poorer conditions for plant growth; contributes to soil erosion; and reduces the drainage of water through the soil and ability of soil to store water.⁶⁹ Healthy well-functioning soils are crucial to reducing the risk of floods and maintaining our capacity to grow food into the future.⁷⁰ 3,100 residential properties and 660 non-residential properties within the Forth Local Plan District were identified as being at risk of flooding.⁷¹

Devastatingly, the environmental damage inherent in our current model of food production is often for nothing. Over one third of the food produced, prepared and sold for human consumption is never eaten. Stirling households produce approximately 9,900 tonnes of food waste each year.⁷²

In spite of the links between agriculture, climate change and biodiversity, changing the way we produce and consume food does not feature in Stirling Local Authority's Climate Ready Stirling and draft Stirling Biodiversity Action Plan.

Agriculture and related-land use accounts for
23.4% OF SCOTLAND'S GREENHOUSE GAS EMISSIONS

Stirling households produce approximately
9,900 TONNES OF FOOD WASTE EACH YEAR

See references on page 57.



What's already happening?

In Stirling, there are a number of farmers practicing environmental stewardship whilst running successful businesses. There is also a network of farmers in the Carse of Stirling promoting collaboration.

AGRI-TOURISM AT WEST MOSS-SIDE ORGANIC FARM AND CENTRE

Kate Sankey has developed a diversified farm business. The farm is located in the heart of the Carse of Stirling and includes part of Flanders Moss National Nature Reserve. The Shetland cattle are one of the main products from the farm. They are a very rare breed which are small and hardy and in the summer graze the high moss and so are contributing to the conservation of an internationally important habitat.

The cattle are 99% 'grass' fed (haylage in the winter), they are slaughtered and butchered

locally and the meat is all sold locally. Here is an example of small scale beef production that has the lowest possible impact on greenhouse gas emissions as well as carbon footprint. This farming is well adapted to the low wet ground of the Carse.

She has renovated a steading to create a space for workshops, exhibitions and meetings of all sorts. Lunches and all refreshments are locally sourced and home cooked. The catering kitchen is used by local businesses.

In the summer there are three luxury glamping yurts, visitors love to see the cows and calves. Guests can order a welcome hamper of local produce, including West Moss-side organic Shetland beef.



Kate Sankey, West Moss-Side

THE CARSE OF STIRLING PARTNERSHIP

The Carse of Stirling Partnership (CoSP) is a grassroots partnership of local stakeholders: farmers, land managers, tourism and recreation businesses and community representatives. It promotes good ideas for the benefit of the local economy, the natural environment and the people who live and visit the area. It was initiated in response to climate change through support by SNH and SEPA

In 2013 the CoSP produced a detailed action plan, outlining a vision for the Carse of Stirling to be 'recognised as a place that delivers a broad range of benefits in terms of the products we get from the land, the regulation of our environment, its contribution to culture and our quality of life and its role in supporting plant and animal life.'

Since then, there have been four working groups - Farming and Wildlife, Flood

Management and carbon, Heritage and Sense of Place and Recreation and Access. Projects undertaken include:

- Working with schools to raise awareness of and take practical steps on environmental issues, such as learning about clover and nitrogen, and bees and pollination.
- Talking to farmers about wildlife, and identified a need through these conversations of a better advisory service and more collaboration.
- Commissioning a report on flooding, which was community-led and outlines 10 measures to mitigate flooding.
- Mapping and surveying walking and cycling routes.
- Developing a Sense of Place project to raise awareness of the amazing story of the Carse of Stirling.

Ideas from around the world

France is mainstreaming a new approach to food production, and seeing agroecology as a win-win situation, improving the prosperity of farmers and looking after the environment.

FRANCE'S LAW OF THE FUTURE: PROMOTING AGROECOLOGY

In 2014 France introduced a new law promoting agroecology. The Loi d'Avenir has a headline target of implementing agroecological production methods on 200,000 holdings by 2025. Over 200 new researchers and tutors have been employed to teach agroecology as a core part of the national agricultural educational programme, including crop diversity and biodiversity, with the tagline of the policy "produisons autrement" (let us produce in other ways).

In addition, it establishes cross-sector groups called 'Groupements d'Intérêt Economiques et Environnementaux' (GIEE). These are an opportunity for different stakeholders to come together at a local level to promote collaboration and effective management of environmental resources. These groups are also intended as spaces for innovation, sharing of best practice and networking.

France's approach to agricultural policy is to address environmental and economic challenges together, promoting approaches that are environmentally sustainable and supportive of rural development.

Where are we going?

By 2030, Stirling's food system can be carbon-neutral, enhancing the region's biodiversity and contributing to climate change mitigation and adaptation. Integrating woodlands and forests with forage and livestock production systems can result in significant carbon and greenhouse gas emission savings. Other benefits of agroforestry systems include carbon sequestration, reductions in soil erosion and leaching, and biodiversity enhancement.⁷³

An emphasis on education and cooperation can support farmers in the region to transition to agroecological food production (including agroforestry), using techniques that work with the natural environment and use resources sustainably.

The public sector can lead by example, breaking procurement contracts up and providing a market for small-scale environmentally friendly farmers and food businesses.

“The health and productivity of ecosystems underpins agriculture which is essential for livelihood and food security. Reducing vulnerability and building resilience in the natural environment will therefore help to reduce vulnerability and build resilience for society.”

Climate Ready Scotland,
May 2014

See references on page 57.



Tomnaha greenhouse

“Our aim is for Stirling to become a leader in climate resilience and for us all to work together - organisations, individuals and communities - to create a safer, cleaner, greener future for everyone.”

Stirling Climate Action Plan,
September 2016

Next steps for Stirling

- Take a cross-sectoral approach, and integrate ambitions for a sustainable food system into Stirling's Climate Change Plan and Biodiversity Action Plan.
- Use Stirling's new urban farm to demonstrate the potential of agroecological farming to use resources sustainably, enhance wildlife and produce a variety of delicious food.
- Increase the provision of land for food production; Stirling Council could invest in land and provide long-term, secure tenancies to local food producers using environmentally friendly production methods.
- Aim for 5% of Region 1 agricultural land in Stirling in organic management by 2020, with 20% by 2030.
- Set a target to become a Local Authority leader in reducing food waste; use the Individual Social Material framework⁷⁴ to engage stakeholders across sectors in identifying strategies to reduce food waste, and explore options such as energy generation, new products, and improved connections along the supply chain.
- Cease the use of neonicotinoids and glyphosate on all public access land to protect bee and insect populations.
- Normalise high-quality, sustainable food with all public meals from schools to local authority buildings featuring 15% organic food, and showcasing healthy, delicious meals. Break up procurement contracts to facilitate participation from local farms and food businesses.
- Look for opportunities to transition to low-carbon methods of food production, processing, and retail. For example, integrating local right-sized processing facilities with sustainable energy production.
- Promote the Carse of Stirling partnership and more broadly, partnership working between Stirling Local Authority, SEPA, SNH, farmers, land managers and businesses to prioritise protecting soils and reduce flood risk to the region.

See references on page 57.

Support from the community

“We want to make Stirling and the Forth Valley a place that people want to visit because of the quality of food products on offer and the ease with which it is possible to connect with the products and producers.”

Anne-Michelle Ketteridge, Programme Manager, Forth Valley and Lomond Leader.

“Foragers is a fledgling business in the process of establishing a small sustainable family farm from scratch on our 4 acre site. Biodiversity is very much at the heart of our project.”

Gary McAlpine, Foragers Foods



Duncan McEwan, Monitor Farm, Arnprior with his daughter

KNOWLEDGE

“Other countries look to Scotland to learn how to become a Good Food Nation.”

What’s the issue?

Although it can’t necessarily be borne out with hard statistics, we hear again and again that we have ‘lost connection with our food’. Newspapers report that children could not correctly identify vegetables, or where meat comes from.⁷⁵ Farmers, and the local community around them, are not eating food from the farm, rather buying it packaged in plastic from supermarket shelves. Parents aren’t passing on cooking skills; it is said we have a ‘lost generation’ who can’t prepare meals from fresh ingredients.

These problems stem from the way we have conceptualized food since the mid-twentieth century. Successive policies nationally and globally have treated food as a commodity; rather than thinking about food as a human right and a cultural asset, we have focused on production and markets, with a narrative that we must produce enough calories to feed the world. This has led to a fundamentally distorted food system, and a number of the issues outlined previously in this report, including over one third of food being wasted, hunger and obesity simultaneously causing suffering, and producing food in a way that compromises our ability to do so in the future, can be traced back to viewing food solely as a commodity.

At the moment education and training related to the food system is not future-focused or sufficient to catalyse the necessary transformation. The way we treat food in our public spaces does not demonstrate its importance in all of our lives, or our collective

environment. Connections between different actors in the food system are limited and Stirling does not have a joined-up strategy for food.

PRODUCTION

There are some interesting programmes, which support farmers to think differently and help assess their business options. For example, the Monitor Farm Programme⁷⁶ establishes a group of farms to explore ways to improve profitability, productivity and sustainability through practical demonstrations, the sharing of best practice and the discussion of up-to-date issues. Farmers in Stirling have also participated in the Scottish Government’s Rural Leadership Programme,⁷⁷ which has supported innovation, diversification and networking with others involved in the rural economy.

Despite these - and other - good examples of support for producers to innovate and include wider environmental and social considerations in their businesses; they do not reach the majority of farmers.

To generate the changes in farming practices needed for a sustainable food system, opportunities for learning and development and sharing experiences need to be accessible as well as financially attractive and practical in order for farmers to engage. Exploring peer learning, as is promoted in France’s Agroecology programme (see page x), is an important way to ensure the transition is empowering and enjoyable for farmers.



CATERING

With Stirling Council and other public bodies facing extremely tight budgets, public sector catering has needed to focus on meeting nutritional requirements efficiently.

Meal times are not given importance in schools, in many of Stirling’s secondary schools lunchtime is only 35-40 minutes long and dining halls have under 40% capacity, so students are rushed through. This does not promote a sense that meal times are valuable for personal and social nourishment.

FOOD GOVERNANCE

Whilst there are local plans considering many of the issues related to food - from economic development, health, climate change, biodiversity - there is no Food Strategy for Stirling, which joins these issues together. Without an effective local strategy and governance, it is large corporations that hold the most influence in Stirling’s food system, with priorities often different to those that are appropriate and important for Stirling’s population and environment.

See references on page 57.



What's already happening?

There are a number of initiatives looking to address these challenges. Farmers are opening their gates to the public to see and smell real food production; communities are coming together to share food skills from growing to cooking; and schools are committing to giving food more space.

BRAEHEAD COMMUNITY GARDEN

Braehead Community Garden aims to create a village in the city, and bring a strong sense of community to the area.

It is a space where there is always somebody about, whether you've got a question about growing carrots, or just want to have a cup of tea with your neighbours, it offers different types of membership to suit everyone.

From the 8,000 people in the Braehead area, there are 140 members, and probably around 1000 people have spent time in the garden for one activity or another.

The volunteers who keep it all going talk about the 'whole journey' - from putting a seed in the ground to a big community bbq with freshly picked salads - and how much fun it is to do things together.

Skill sharing at the garden happens naturally, with a diverse community from all walks of life, and all parts of the world, sharing knowledge about growing and enthusiasm about eating.

Children from local clubs spend time in the garden, smelling tasting, planting, and learning first-hand where food comes from.

At Braehead the vision is that in 20 years time, it is normal to grow and eat with your neighbours, and food has regained its central place in the fabric of Scottish communities. They have been working with other community gardens to share good ideas and support where they can.



SOIL ASSOCIATION SCOTLAND'S 'FOOD FOR LIFE' PROGRAMME

The Food for Life Scotland programme engages with schools and nurseries across Stirling; encouraging a whole-settings approach to food, which is designed to provide a bridge between education and catering. Complementing the Food for Life Catering Mark award, the programme provides a Framework for life-long learning; re-connecting learners with their food, and promoting good food experiences through a 'soil to plate' learning approach. Support is provided in a number of ways; from up-skilling teaching and catering practitioners to empower them with the confidence and practical skills to share knowledge and weave together the myriad issues associated with food, to a suite of online resources available to all teaching and catering practitioners.

Soil Association Scotland have found there is often a great deal of expertise within educational settings and their wider communities, and people who are passionate about different aspects of food, whether it's growing, cooking, or enjoying and celebrating mealtimes, and the programme encourages the sharing and inclusion of the wider community to make the most of this diversity of skills.

The Food for Life approach also encourages settings to explore how food can deliver across the whole of Curriculum for Excellence, as well as on key priority areas in education, from Raising Attainment, Health & Wellbeing to Learning for Sustainability and Developing the Young Workforce. Settings exemplify their activities through the sharing of stories on www.foodforlifescotland.org; providing a repository for inspiration and ideas, which can be accessed by a wider audience.

ARNPRIOR FARM

Duncan and Rebecca at Arnprior Farm have made engagement with the community integral to their farm business. Having taken part in the Monitor Farm Programme as well as the Rural Leadership Programme, they had some more resources to think differently about farming. Alongside their traditional farming activities, growing oats, keeping sheep and a bed and breakfast service for cattle, they are focusing efforts on education about food.

In the autumn, they run a pick your own pumpkin activity, selling 4,000 pumpkins in 2016, with people digging for turnips and potatoes too because it was so popular. In the spring, they open the farm gates again for the general public to get a first-hand experience of the lambing process.

Both the pumpkins and lambing allow families to discover for themselves more about where food comes from. Again, the popularity of these experiences is testament to widespread interest in being more connected to and knowledgeable about our food.



Allan Primary School on a visit

Ideas from around the world

Denmark is establishing a food culture that values the provenance of food, with public kitchens are leading by example.

House of Food and Organic conversion in Copenhagen: 'Swapping the scissors for knives'

In Copenhagen, 88% of the food served in public kitchens is organic. This has been achieved without any increases in the food budget for public kitchens; instead they changed the culture of public meals. Rather than substitute organic ingredients for non-organic ingredients, changes were made to the way meals were cooked, thought about and planned.

Training programmes run by the House of Food for those working in public sector kitchens focused on a cultural shift in how cooks think about their jobs, showing that their work is respected and valued. They spend time on local organic farms, reestablishing connections with food as well as building more skills in cooking from scratch. The experience in Copenhagen is that once people start on the journey, they keep challenging themselves. While the cooks are away, the workload is covered through a training programme for

unemployed people. 83% of the people who participate in this training programme go on to employment.

Pupils also get involved with working alongside catering staff to prepare their own school meals; thus up-skilling the next generation.

The Danish method for converting to organic, without increasing food budgets, is by letting seasonal produce dictate the menus. They use more seasonal greens, more potatoes, and more grains, pulses and lentils. Baking their own bread and cake, less processed foods, and less and better meat.

There is also awareness that a huge part of the meal has nothing to do with the food or the cooking, and the cultural shift is also about the environment at meal times. Giving adequate time to meals, providing a pleasant atmosphere and a sense that meals are important is a big part of the change.

In Copenhagen the target is to reach 90% organic food in public sector kitchens, but there is also a sense that this is the means and not the end. Organic conversion will help get to where we need to be on climate change, antibiotics, and supply chains.

Where are we going?

By 2030, Stirling can create a strong food culture, where everyone knows where their food comes from and consideration is given to the impact on the environment, the wellbeing of workers and the nutritional content of the food. Communal meals can also support a healthy society, and provide a space for connecting to each other.

Knowledge about food is integrated across disciplines, with better understanding of food's role in society, our environment, our health, and our economy.

"The tool of hospitality is probably the most important tool we have."

Anya Hultberg, organic conversion specialist, Copenhagen

"The Scottish Government wants food to be a key part of what makes the people of Scotland proud of their country."

Good Food Nation Policy



Next steps for Stirling

- Establish a joint good food procurement initiative between Stirling Council, Forth Valley Health Board, University of Stirling, Forth Valley College and public bodies such as SEPA and Zero Waste Scotland, to ensure all public meals are showcasing healthy, delicious and sustainably sourced meals.
- Invest in a House of Food for Stirling, focusing on a cultural shift on how we approach public food, which empowers those in the public sector through an interdisciplinary training programme, including farm visits and food culture. This could be extended to include those who work with food in the private sector.
- Every school should be linked to a local farm and/or community-growing project. Schools should be encouraged to view mealtimes as a learning opportunity, where pupils explore the provenance of what's on their plates; reconnecting with their food and using the dining experience to enhance social skills; thus truly bringing the 'soil to plate' journey to life.
- Support community projects with access to resources, such as land, transport services and financial investment, to allow grassroots groups to reach their potential.

Support from the community

"The Kippen school and our community partners in the form of parents, volunteers and the wider community have been working hard on developing our food education to raise awareness of local food initiatives and of the range of food produced locally."

Fiona Stirling, Class teacher, Kippen Primary School,

"We see first hand the local interest and desire to be able to find out about local food, understand food production and source local food."

Alison Younger, Old Leckie Farm, Stirling

Alison Younger



SUMMARY OF RECOMMENDATIONS

Prosperity

STIMULATE A SHIFT TO BUYING LOCAL FOOD, BY MAKING IT ACCESSIBLE GEOGRAPHICALLY AND FINANCIALLY:

- A weekly covered market in a central location.
- Pilot an extension of the Healthy Start scheme, to include all children up to the age of 16, and link it more directly with local primary producers and processors, to support their livelihoods too.
- Break down public procurement contracts to make it easier for local farmers to supply the public sector and thus develop stronger local supply chains that can support the whole local food sector.

PRODUCING MORE OF WHAT WE EAT IN STIRLING AND EATING MORE OF WHAT WE PRODUCE:

- Support farmers to switch to heritage wheat varieties, which would be more resilient in challenging environmental conditions, as well as facilitate a local bread supply chain.
- Make veg growing a priority in Stirling; reach out to farmers to consider switching some of their land to horticulture.
- Provide support, training, and opportunities to enhance cooperation for farmers in Stirling and stimulate a diverse and sustainable agricultural sector.
- Develop a Food Hub, which could function as a wholesaler for local food as well as a space for innovation and ideas.
- Use public sector catering to showcase seasonal, healthy and sustainable meals.

Social Justice

EMBED THE RIGHT TO FOOD ACROSS ALL LOCAL AUTHORITY POLICIES AND PROGRAMMES:

- Invest in a food and drink team who can work with departments across the council, as well as public bodies and communities to take a rights based approach to food, which means that food is accessible, adequate and available for everyone.
- Pilot a scheme that extends the existing Healthy Start programme and ensures that nobody is priced out of accessing a healthy diet.

PROMOTE THE LIVING WAGE:

- Promote the Living Wage through procurement standards and work with employers across the food sector to pay the Living Wage, to ensure incomes are sufficient for an adequate standard of living.



Jane and Kate,
IQ Chocolate



Knowledge

NORMALISE HIGH-QUALITY, SUSTAINABLE FOOD:

- Establish a joint good food procurement initiative between Stirling Council, Forth Valley Health Board, University of Stirling, Forth Valley College and public bodies such as SEPA and Zero Waste Scotland, to ensure all public meals are showcasing healthy, delicious and sustainably sourced meals.
- Invest in a House of Food for Stirling, focusing on a cultural shift on how we approach public food, which empowers those in the public sector through an interdisciplinary training programme, including farm visits and food culture. This could be extended to include everyone who works with food.

SUPPORT A DIVERSE FOOD CULTURE, AND SOIL TO PLATE LEARNING ABOUT FOOD:

- Make spaces available for community meals and community growing. Support agencies, organisations and volunteers to develop the community food sector so that everyone in Stirling knows of a regular community meal near them.
- Every school should be linked to a local farm and/or growing project, with involvement from the school community and local experts to promote knowledge and passion about food.

Health

CREATE A HEALTHY FOOD ENVIRONMENT WHERE ITS EASY TO EAT WELL:

- Improve awareness around the positive effects of breastfeeding and normalise it in the local community. Every café, restaurant and workplace in Stirling to be badged 'breastfeeding-friendly'.
- Limit the number of fast food outlets in any one district, and improve and extend standards such as the Healthy Living Award and the Healthcare Retail Standard to ensure the food offer in shops matches what we should be eating.

ENSURE A JOINED-UP APPROACH TO PROMOTING HEALTH:

- Work with local health authorities to introduce fruit and vegetables on prescription, as well as working with GPs to signpost to community growing and cooking projects that support physical and mental health.
- Support community cafés with transport services, which can collect and drop off elderly people and others who have mobility issues, so they can enjoy nutritious communal meals that support physical and mental health.

Environment

TRANSITION TO AGROECOLOGICAL FOOD PRODUCTION:

- Use Stirling's new urban farm to demonstrate the potential of agroecological farming to use resources sustainably, enhance wildlife and produce a variety of delicious food.
- Promote partnership working between Stirling Local Authority, farmers, land managers and businesses to prioritise protecting soils and reduce flood risk to the region.

BECOME A LOCAL AUTHORITY LEADER IN REDUCING FOOD WASTE:

- Use the ISM framework to engage stakeholders across sectors in identifying strategies to reduce food waste.
- Promote local food processing and the development of new products, such as turning good fruit and vegetables that would otherwise be wasted into soups, juice and baby food.

Gillian and David, Ardunan Farm



How will we know if it's working?

Although this report gives a picture of many aspects of Stirling's food system, it by no means captures all of the issues related to food, or can provide all of the data that might be relevant. Many things are difficult to measure, and would require significant resources to do so. However, there are also some indicators that can be used from data that is already (or will soon be) collected at a national level.

These are a few examples of what success would look like:

INCREASED ACCESSIBILITY OF LOCAL FOOD⁷⁸

- In Stirling today: local food is niche, with limited visibility on the high street and no mechanisms to support access for those on low incomes.
- In Stirling in 2030: Local food forms a core part of food shopping for everyone in Stirling and nobody is priced out of accessing fresh, local produce.

A REDUCTION IN FOOD INSECURITY⁷⁹

- In Stirling today: 1,900 people rely on a food bank to survive a crisis.
- In Stirling in 2030: Everybody has reliable access to enough good food, with choice and dignity.

A REDUCTION IN CHILDHOOD OVERWEIGHT AND OBESITY

- In Stirling today: 28% of children (aged 2-15) are at risk of overweight, including 15% at risk of obesity.
- In Stirling in 2030: Every child is a healthy weight.

LEADING SCOTLAND IN AGROECOLOGICAL FOOD PRODUCTION

- In Stirling today: Limited integration of food production into environmental strategies.
- In Stirling in 2030: Stirling has a reputation for encouraging agroecology, with access to training and resources and a strong community of food producers who look after the environment.

PUBLIC PROCUREMENT CATALYSING CHANGE

- In Stirling today: Meals in schools, civic buildings, hospitals, care homes and prisons do not support the local food economy or create a strong food culture.
- In Stirling in 2030: All public sector kitchens have gone beyond Food for Life Catering Mark Gold,⁸⁰ with a high proportion of local and organic food served and meal times seen as a priority.

See references on page 57.



Mike Robbin, Stirling's Provost, at the launch of Stirling Food Assembly. With Emily Harvey, Kate Sankey, Clara Walker (FEL), Judith McGowan (Tomnaha Market Garden), Rebecca McEwan (Arnprior Farm) and Stirling Food Assembly Customers.

CONCLUSION

The future of Stirling's food system is yet to be decided. We do know that things are set to change. The implications of Brexit for the food system are significant: it will not only affect the system of farm subsidies, but also food prices, and the availability of seasonal agricultural labour. Added to this political instability are environmental challenges; food production is vulnerable to the changing climate and degradation of natural resources; and social challenges, with food insecurity a persistent issue and diseases relating to poor diets making the NHS unsustainable.

These challenges also represent a tremendous opportunity. They require everyone to think differently. Stirling could respond by aiming for better. Being proactive with the food system can establish a fresh trajectory - one that values health and wellbeing, decent livelihoods, environmental stewardship and an exciting culture. Stirling's City Deal could transform the region in a way that feels real for everyone - through food. We all eat and food can be at the heart of healthy local economies, well-nourished populations, and a thriving environment.

There are many different ideas presented in this report, and an important next step for Stirling is to establish a Food Partnership, involving public bodies, businesses, producers and community groups, to take these ideas - and others - forward. Working closely with those involved in the City Deal developments will be important for embedding food into wider plans for inclusive growth in the region.

See references on page 57.

A Food Partnership, such as those exemplified in the Sustainable Food Cities network,⁸¹ will facilitate strategic oversight, with food touching on so many different issues and involving a wide variety of activities, collaboration facilitates robust initiatives, which together can create a fair, healthy and sustainable food system in Stirling. Ensuring resources reach those doing the work on the ground will be critical in enabling success. Investment must be used to support projects and programmes that are doing transforming the food system at a grassroots level.

Stirling has all the pieces of the puzzle. With established networks, skilled people, and investment entering the region, the means are there, while food insecurity, social dislocation, poor diets, and environmental degradation, also provide the motive. With some visionary leadership and collaborative efforts, Stirling can demonstrate what it means to be a good with food.



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