

Berkshire Public Health Annual Report 2021/22

Stuart Lines
Director of Public Health, Berkshire East

Tracy Daszkiewicz Director of Public Health, Berkshire West



Berkshire Public Health Annual Report 2021/22

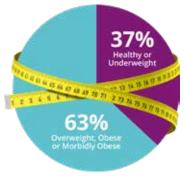
Helping tackle climate change, one meal at a time

Foreword

As the Directors of Public Health for Berkshire East (Bracknell Forest Council, the Royal Borough of Windsor & Maidenhead and Slough Borough Council) and Berkshire West (Reading Borough Council, West Berkshire Council and Wokingham Borough Council), we are delighted to present our joint independent annual report on the health of the people of Berkshire for 2021/22.

This year's report has a broad focus – on food.

At first glance this may seem a surprising choice, with little relevance to the current pandemic. In fact, the opposite is true. The choices we make every single day about what we eat have a profound effect not only on our individual health and susceptibility to various diseases, but also on the health of our planet.



As we know only too well, being obese or severely overweight increases the risk of both severe illness and death from COVID-19, with obese people at greater risk of hospitalisation, admission to intensive care, and death. Almost two thirds of adults in England are overweight or obese, with older people, those suffering from deprivation and certain minority ethnic groups even more likely to fall into this category.^[1] This is a deeply shocking statistic and illustrates powerfully the importance of immediate action.

Our focus needs to be on food – where it comes from, how it is transported to us, the buying and disposal choices we make – in order to improve not only our health and well-being, but also to consider the wider implications in terms of the climate emergency.

We are in the unique and potentially frightening position of experiencing both a climate emergency and a global pandemic simultaneously. Both have brought home to us the close relationship we have with our environment and the interconnectedness we all share. Both can only be addressed through our concerted and collective efforts. Changing food production and eating habits at global, national, community and individual levels can play a huge part in achieving benefits for both.

We sincerely hope you enjoy reading our Annual Report and watching the wonderful video stories from around our county, and we encourage you please to stop and think about the small steps you can make to improving not just your own health but also the health of planet Earth.



Stuart Lines Director of Public Health Berkshire East



Tracy Daszkiewicz Director of Public Health Berkshire West

Acknowledgements

The Directors of Public Health Berkshire would like to thank the following people who provided unwavering commitment and expertise to developing the content, design and launch of our first ever digital Annual Report. We would also like to thank all those who participated in the great sustainability video stories that you can enjoy watching as you read through our report.

Meradin Peachey, former Interim Director of Public Health, Berkshire West

Tessa Lush, Communications & Marketing Principal, Public Health, Berkshire East & West

Becky Campbell, Public Health Intelligence Manager, Berkshire East

Sarah Shildrick, Public Health Intelligence Manager, Berkshire West

Katie Badger, Public Health Programme Officer Trainee, Reading

Aidan Gilbert-Ball, Public Health Programme Officer Trainee, Berkshire East

Charlotte Littlemore, Public Health Programme Officer, Royal Borough Windsor and Maidenhead

Dr Jacob Bishop, Lecturer in Crop Science and Production, School of Agriculture, Policy & Development, University of Reading

Gunter Kuhnle, Professor of Nutrition and Food Science, Department of Food & Nutritional Sciences, University of Reading

Rosi Jordon, Advisor, Sustainable Three Rivers

Website created by Reading Web Services and designed by Karen Bennett, Bracknell Forest Council.

Climate change commitments

Planet Earth is our home; yours and mine, wherever we live. Every one of us can act to help protect our planet and go some way to repairing the damage that has already been caused. Inspired by words from world leaders at COP26, by the passion of Greta Thunberg, and the wisdom of Sir David Attenborough, we must all think about our own personal footprint on Earth. In the spirit of thinking globally and acting locally, we can all make small, individual steps which together can make big changes for the better. We encourage you to read through our report and take time to stop and think about the small steps you can take to improve your footprint on planet Earth.

COP26 (November 2021) was regarded as critical in terms of attempting to bring climate change under control. Governments, world leaders, scientists, activists, non-governmental organisations (NGOs), trade unions and business leaders met in Glasgow, with the main goal of assessing progress against the 2015 Paris Agreement and increasing commitments. Other key goals included generating at least \$100bn in climate finance per year, putting an end to deforestation and our reliance on fossil fuels, plus encouraging investment in renewables.^[2]

The impacts of warming have revealed the catastrophic consequences of allowing the world to heat to more than the 1.5°C target set out in the Paris Agreement. Half a degree Celsius of extra warming (between 1.5°C and 2°C) will have grave consequences for communities and the natural world, with disproportionate impacts on indigenous people, low-lying and small island states and fragile ecosystems.^[3]

| | | 1.5°C | 2.0°C | IMPACT |
|---|------------------------------------------------------------------------------|----------------------------------|---------------------------------|--------------------|
| | Extreme heat Global population exposed to severe heat every 1 in 5 years. | 14% | 37% | 2.6X worse |
| * | Sea-ice-free Arctic Number of ice-free summers | At least once every 100 years | At least once every 10 years | 10X worse |
| k | Sea level rise Amount of sea level rise by 2100 (meters) | 0.40m | 0.46m | 0.06m worse |
| * | Species loss: Plants Plants that will lose half their habitatale area | 8% | 16% | 2X worse |
| * | Species loss: Insects Innects that will lose half their habitable area | 6% | 18% | 2X warse |
| 泰 | Coral reefs Further decline in coral reefs | 70-90% | 99% | up to 29% worse |
| # | Fisheries Decline in marine fisheries | 1.5 Million Tonnes | 3 Million Tonnes | 2X worse |

In addition to a global commitment to phase down the use of coal, deals were agreed to end and reverse deforestation by 2030 and to cut global emissions of methane. Livestock, manure, leaks from gas distribution networks and landfill waste all represent sources of methane. When released into soil or water methane will eventually escape into the air where it is slow to degrade. Methane is the second most significant greenhouse gas in the UK. [5]

Be aware that these deals or pledges were often vague and non-binding. We need to push for these pledges to be enforced through legislation. The Glasgow Climate Pact only keeps 1.5°C in sight if countries take concerted and immediate action to deliver on their commitment. [2] This means phasing down coal power, halting and reversing deforestation, speeding up the switch to electric vehicles and reducing methane emissions.

Are there examples of reversing the damage?

The great news is that positive change is absolutely possible. Over three decades ago, CFCs used in fridges, foam plastics and aerosol sprays were identified as the main cause of damage to the ozone layer, allowing harmful UV radiation into our atmosphere. Through concerted international co-operation and effort, CFCs were banned and the healing of the ozone layer began. Scientists now predict the damage over Antarctica should be completely reversed by 2050. This is an inspiring example of a relatively small change on a global level creating a huge difference.



Another positive example of small behaviour change relates to plastic bags. 7.6 billion single-use carrier bags were given to customers by major supermarkets in England during 2014; that's 140 per person, about 61,000 tonnes in total. These bags take many years to degrade, can harm wildlife and often litter our seas, parks, streets and countryside. However, in October 2015, a small charge was introduced for single-use plastic carrier bags. By 2019/20 single-bag use had been reduced by 95%, a remarkable achievement. This clearly demonstrates the power and impact of simple and easy changes to everyday behaviours.

Global Grub

Global Grub is a great place to connect through cooking by learning to cook new dishes and to take notice of new and exciting flavours. The project provides the opportunity for young people to make their own food, understand food, gain confidence in cooking, develop their communication skills, and socialise without paying a penny. This means young people are taught to cook, they can access the recipes simply through Tik Tok and are able to eat a healthy, more sustainable diet.



Our focus in Berkshire

We have agreed to focus our 2021 Annual Public Health Report on food; its production, distribution and consumption, and what we can do at each stage of the process to reduce its environmental impact, whilst also considering the importance of good food choices in improving health and well-being.

Throughout this report, we will explore the impact that food production has already caused to our planet and what we can all do to help reduce this by making small, accessible changes to the food we buy and what we eat. We provide lots of fascinating facts and figures, plus information about the impact of our food choices.

There is plenty of guidance and many suggestions in the form of action cards that can help both the environment and our nutrition, as well as improving our individual footprint on planet Earth.



Remember the words of Burke, the great political theorist and philosopher of the 18th century:

"Nobody made a greater mistake than he who did nothing because he could only do a little."



Understanding the evidence

For thousands of years, humans have generally lived in harmony with planet Earth. But since the Industrial Revolution human activity has had a much more significant impact on the planet's climate and ecosystems, with humans ultimately dominating nature in a way that threatens the Earth and the resources we need to survive. An international group of scientists from 23 countries recently concluded that 150 years of industrialisation has undone 6,000 years of global cooling. [10]

Tipping Points for Planet Earth

Scientists have clearly shown that our survival depends on a stable and resilient planet, where the interactions of land, ocean, atmosphere and life work in harmony. This harmony is under threat from:



1. Climate change



2. The shrinking number and quantity of species



3. Nitrogen levels
(nitrous oxide is 300 times
more potent than carbon
dioxide and depletes the ozone
layer – Soil Association)



4. Changes to land use

Climate change

The United Nations defines climate change as long-term shifts in temperature and weather patterns, mainly caused by human activities, especially the burning of fossil fuels. Since the 1800s, there has been a steady rise in these human activities, particularly relating to the burning of gas, oil and coal. Over the last 50 years it has become apparent that our actions are having devastating effects on our climate.

Our planet is heating up. The Earth is now about 1.1°C warmer than it was in the late 1800s. The last decade (2011-2020) was the warmest on record. [12] Greenhouse gases such as carbon dioxide, nitrous oxide, water vapour and methane trap heat in the Earth's

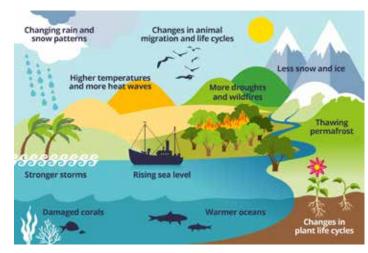
atmosphere. Although sunlight can pass through the atmosphere, the gases prevent heat from leaving and so the earth gets warmer.

But temperature rise is only the beginning of the story. Because the Earth is a system, where everything is connected, changes in one area can influence changes in all others.

The consequences of climate change now include extreme weather events, among others, intense droughts, water scarcity, severe fires, rising sea levels, flooding, melting polar ice, catastrophic storms and declining biodiversity. The choices we make as a species are having a profound impact on our planet.

However, all is not lost!

Although it might be easy to believe that small actions are not worthwhile, in fact there are many small, straightforward steps we can all take to make a positive impact. Trees capture and store CO2, so increased planting in gardens, parks, wasteland and deforested areas is a big positive step. Changing meat and dairy agricultural practices to reduce the production of methane and protect forests, particularly rain forests, can also have a huge global impact.



Since 1990, 1 billion acres of forest has been lost. In the last fifty years, 17% of the Amazonian rain forest has been destroyed – an area the size of Israel is destroyed every year. We need to plant more trees and stop the ravaging of these valuable habitats.

Evidence indicates that switching to a diet that reduces the consumption of red meat has health benefits. We can also reduce our carbon footprint by choosing to buy local, seasonal, unpackaged food where possible; by eating everything in our fridges so we waste less; and even just refilling a water bottle from the tap.



The Woodlarks Café

The Woodlarks Café is situated in Swinley Forest and is aptly named after the bird which has historic routes to the forest. Over the last 12-18 months the café has undergone huge changes. The focus is to provide a more sustainable, environmentally friendly, and healthy café. The café has also changed its design with lots of infographics about recycling, food waste and being environmentally conscious. These include messages about recycling and minimising food waste.

The increasing rate of biodiversity loss

Our planet supports a remarkable variety of species, from animals and birds to plants, insects and microorganisms. Biodiversity underpins every part of our lives, including our livelihoods and wellbeing, yet it is under enormous threat and has been declining at a rapid rate in recent years. This is mainly due to human activities – land use changes, pollution and climate change for example.^[14]

The demands of a growing, industrialised population are taking their toll in many deeply alarming ways. From sprawling cities and overfished seas to species-rich grassland, peatland and forests devastated to provide more land for agriculture, we can see the stark evidence all around us. Healthy biodiversity provides us with clean air, fresh water, good quality soil and crop pollination. If we want to

fight climate change, we urgently need to do all we can to improve our biodiversity. Every second counts!



Stop and Think about this shocking fact: climate change, pesticides, land change use resulting in habitat loss and disease have all contributed to the huge loss of bees and other pollinators in recent years. If we didn't have bees pollinating our crops, it would cost UK farmers £1.8 billion a year to do the job. A decline in the bee population dramatically affects food production, biodiversity and the health of our gardens, plus fewer insects results in fewer birds. Since 1900 the UK has lost 13 species of bees and a further 35 are considered under threat.

Although often more expensive, choosing organic food which hasn't been sprayed with chemical fertilisers is a highly effective way of decreasing the use of pesticides. Not only do these pesticides damage our eco-system, but they are also potentially harmful to us.

Did you know that non-organic grapes, oranges, raisins and sultanas come top of the '2022 Dirty Dozen' list of fruits and vegetables with the highest level of pesticide residues, compiled with official UK government figures?^[16] In total, 122 different pesticides were found in the Dirty Dozen, with 25 chemicals found in just one kilogram sample of sultanas.^[18]

So why not consider buying at least some of your fruit from organic outlets or even start to grow your own fruit and vegetables. And even easier, choosing a whole lettuce, preferably not wrapped in plastic, rather than a salad bag pumped with nitrogen gas is a great idea.



Food4families

Food4families was set up in 2010 by Reading International Solidarity Centre (RISC), to encourage more people to learn how to grow their own fruit and vegetables and enjoy the well-known health and wellbeing benefits of gardening. This would encourage people to adopt a more sustainable lifestyle. As well as learning to grow food and plants, landscaping also takes place where everything used is renewable or recycled material. One of the lessons of COVID-19 has been that green space is a key ingredient of a healthy society and the opportunity to grow food must be designed into our urban landscapes.





Therapy Garden

The therapy garden at West Berkshire Community Hospital (WBCH) provides an invaluable oasis and resource for patients, their visitors and carers, as well as staff. As a healthcare resource, it provides a range of activities and therapies for patients in a relaxing and peaceful outdoor space. It produces a range of fruit, vegetables and flowers as well as driving a much wider agenda in relation to supporting biodiversity and sustainability of the hospital site.

Have we succeeded in reversing any trends?



Yes. The cod recovery plan between 2006-2017, which included larger holes in nets so young fish could escape and limited fishing days, resulted in cod stocks increasing four-fold. However, this has fallen again by 31%, so action is needed once more.^[19]



Yes. As a result of the Montreal Protocol and the reduction in the use of CFCs, the hole in the ozone layer is gradually closing.^[20]



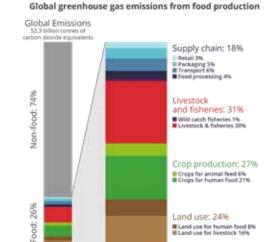
Yes. The introduction of a charge for single use plastic bags resulted in a 95% reduction in single-bag use. [8]



Food, Climate and Berkshire

Here in Berkshire, we've been looking specifically at our food – what we eat, how it's produced and what we throw away.

Did you know that food production is responsible for **26%** of the world's greenhouse gases?[21] And it's not just how the food is grown that affects the health of our planet, it is also the transport, processing, packing and distribution.



Land use: 24% ■ Land use for human food 8% ■ Land use for livestock 16%

Sustainability

The most sustainable food is that which is in season and local, grown using natural sunlight rather than heated greenhouses. Fewer food miles, less carbon, more sustainability.

The Collerton Primary School

The Colleton Primary School has sustainability as a key part of its ethos. It runs an integrated skills-based cooking curriculum and focuses on growing seasonal fruit and vegetables for the children to cook, caring for hens and bees at school, leaf picking to make mulch and composting, plus recycling plastics. Up to 60 mixed age pupils attend the weekly Gardening Club to develop their skills and try food grown and harvested by them, on site. There's even an annual 'MasterChef' competition!



In order to eat sustainably, we need to meet our own needs without depleting our natural resources. This will allow future generations to meet their own needs too, whilst also maintaining an ecological balance. This sounds fairly straightforward but it's a bit of a minefield.



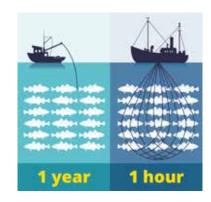
If we always fish in the same part of the sea and never allow the fish population to breed and grow again, what will happen? Simple: the fish supply in that area will eventually run out.

Even though we have 76 protected marine areas around our coast, industrial fishing continues to be rife within these zones. Super trawlers, with nets a mile long, are devastating our fishing stocks.

A Greenpeace 2022^[22] report claims that one super trawler can catch more fish in one hour than a traditional fishing boat can catch in one year.

This alarming fact makes it vital that we all try to source our fish ethically. Have a look at 'Seaspiracy' from Netflix to learn more about some of the potential problems with trawler fishing and try to buy your fish from small companies that can guarantee the provenance of their fish. Also, always insist that the fish is **line-caught.**

Cutting down on the meat and dairy in your diet could be a good place to start according to the UN's Intergovernmental Panel on Climate Change (IPCC),^[3] who report that the West's consumption of these is fuelling climate change. The new Climate Gap report by Ethical Consumer shows that UK citizens need to reduce meat and dairy consumption by at least 20% to meet UK climate targets.^[23]



Did you know that the dairy industry is responsible for 3.4% of global CO2 equivalent emissions, almost double that of aviation?^[24]

A recent study from the University of Oxford found that a 200ml glass of dairy milk causes three times the gas emissions of rice, soy, oat or almond milk (although rice and almond milk use a considerable amount of water too).

Dairy is high carbon, for not only do cows 'chew the cud' leading to the production of methane, but if they are fed on soya, there is a deforestation element to their footprint. [25] If your household gets through two and a half pints of milk a day, that's a tonne of CO2 per year, as much as a flight from London to New York. Almost 70% of a cow's milk footprint takes place on the farm, though of course transport packaging and refrigeration also play a part.

But there's a balance. Milk and dairy products, such as cheese and yoghurt, are great sources of protein and calcium. They can form part of a healthy, balanced diet. The fat in diary milk provides calories for young children, and also contains essential vitamins. Plus it is often produced locally, so minimises the travel required to get it to our fridge.



Eating less but buying better quality local meat is another way forward, though this is also fraught with complex problems. Undoubtedly, farmers who raise their animals outside all year, relying predominantly on green pasture, don't buy in tons of manufactured animal feed which probably contains soy. Plus,adopting the 'regenerative agriculture' model which uses animals such as pigs and chickens to prepare the ground for crops, leads to the preservation and improvement of the soil's carbon-storing ability. According to the National Farmers Union, British beef has a greenhouse gas footprint 2.5 times smaller than the global average.^[26]

However, a 2017 study by Oxford University found that even pasture livestock are still net contributors to climate change. It's great to eat grass-fed, locally produced beef, but you also have to eat less of it. So 'make meat a treat' is a way to benefit both local farmers and the environment.^[27]

Food: transport, processing, waste

Our food choices can have a direct and damaging impact on our environment.

Food miles are a way of attempting to measure how far food has travelled before it reaches the consumer. Whilst some food simply travels from the farm to a local shop or market, other types of food require transportation to factories for processing and packaging. Only then can this food be delivered to supermarkets or shops. And, of course, each journey and each process produces carbon emissions.



DEFRA (Department for Environment, Food and Rural Affairs) is the government department responsible for environmental protection, food production and standards, It estimates that food distribution is responsible for 25% of all miles covered by heavy goods traffic in the UK.^[27] Food transport within and to the UK produces 19 million tonnes of CO2 annually – equivalent to around 5.5 million cars.^[28]

A pear from Argentina will have travelled over 7,000 miles to reach the UK. All the energy needed to transport that pear from Argentina creates a carbon footprint, which represents the amount of greenhouse gases produced. [29] But if you choose a pear

picked recently in the UK, it will have travelled far fewer miles to arrive in your fruit bowl. Buying food which is local and seasonal is always our best choice.



Stop and Think about where the food you're about to buy has come from.

Read the packaging and look for the country of origin. A supermarket strawberry this winter will have either been grown in a heated greenhouse or imported, both causing a heavy carbon footprint.

Some supermarkets are skilled at convincing us with clever packaging and reassuring brand names that products are home grown in the UK, when this is not the case. Have a look at Ethical Consumer 2022 for more information and examples. Other supermarkets have promised to support British farmers by not adopting fake farm brands. [30]

CROW

Crowthorne Reduce our Waste (CROW) was set up in 2018 as part of a local concern for the environment, with the initial aim to meet the objectives of the 'Plastic Free Communities' scheme. They work with individuals, community groups and businesses to minimise the village's contribution to the plastic crisis and in 2019 were awarded Plastic Free Communities Status by Surfers Against Sewage. Through positive change and action, the group believes it can influence the culture needed to stop plastic waste from overwhelming the world.



Food processing

Processed foods are not just microwave meals and ready meals. This term refers to any food that has been altered in some way during preparation.

Food processing can be as basic as freezing peas, canning carrots, baking bread, drying tomatoes or pressing sunflower seeds to produce oil. As you can see from this list, It would be a mistake to think that all processed food is unhealthy. Indeed, some ingredients need to be processed to ensure that they are safe to consume, as is the case when milk is pasteurised to remove harmful bacteria.

However, some common processed foods have high, unhealthy levels of salt, sugar and fat which can contribute to heart disease, diabetes, high blood pressure and other health issues. These include

- savoury snacks, such as crisps, sausage rolls, pies and pasties
- breakfast cereals
- meat products, such as bacon, sausage, ham, salami and pâté
- microwave meals and ready meals
- cakes and biscuits
- soft drinks
- some cheeses

For many of these foods, there are healthier alternatives

- Instead of breakfast cereals, try porridge oats with fruits and nuts as a healthier low-sugar and low-salt alternative
- Use left-over vegetables to make stock, then start soup-making
- Healthy snacks include fresh, dried or tinned fruit (in their juices, not in syrup), nuts and seeds, carrot and celery sticks, plain popcorn, teacakes or crumpets
- Enjoy some plain, unsweetened yoghurt flavoured with a little honey (preferably organic honey which is produced locally)



Although some ready meals claim to be healthy, they can vary in their salt, sugar and fat content. Always read the label and compare different products. The traffic light labels provide useful guidance on which products to choose.

The British Heart Foundation has lots of handy advice and this useful tool to check how healthy your regular food shopping is: How healthy is your shopping basket? – Heart Matters magazine (bhf.org.uk)

Other processed foods contain lots of different ingredients which will already have travelled some distance before they are combined and wrapped in plastic and cellophane for the supermarket shelf.



Stop and Think about a supermarket pre-packaged fruit salad blending strawberries from Spain, pineapple from Costa Rica and grapes from Egypt.

- Each of these foods created food miles on their way to the factory where they were prepared and packed.
- They then gained more food miles on their journey to the supermarket.

Buy individual, unwrapped, organic (if possible) fruit, chop it up and add a splash of water to create the natural juice and you'll have your own home-made fruit salad in no time, plus no packaging to dispose of.

To find out the climate impact of what you eat and drink, choose from one of the 34 items in the calculator below and pick how often you have it.

Climate change food calculator: What's your diet's carbon footprint? - BBC News

All figures for each food in the calculator are global averages. If you cannot view the food calculator, click to launch the interactive content.

Food surplus and waste

The UK produces more than five million metric tons of household food waste every year, more than 70kg per person. ^[31] In Berkshire, across Reading, Bracknell and Wokingham, about 33% of waste material by weight is food waste. ^[32] And wasting food is a climate disaster. It's not just the food we waste, it's all those resources that went into producing it. ^[33]

Did you know that 40% of groceries in the UK are sold on promotion and one in three UK shoppers impulse buy unhealthy food because it's on special offer. [34] So, it's best to try to avoid the promotions on unhealthy food.

Of course, if food has 'gone off', it needs to be disposed of, but as rotting food releases methane, something we're all trying to reduce, we must do so responsibly. Remember to use the food waste scheme that is run by your local authority that provides a small food waste bin to households, which is then picked up alongside the regular rubbish collection.

Share Wokingham

Share Wokingham is a community service set up as a result of the COVID-19 pandemic to support the local community with fresh food and other items which would ordinarily be wasted by major supermarkets. Share Wokingham receives perfectly good food from major supermarkets such as Aldi, Lidl, Marks and Spencer, Sainsbury's and Waitrose, local bakeries and local organisations, which they offer to the community. This can include fresh vegetables, fruit, pasta, rice, bread, and lots of cupboard essentials. There is no charge for the items they offer, and they are open to anyone who can come along, no referral needed.





Trisha Bennett Community Development Coordinator



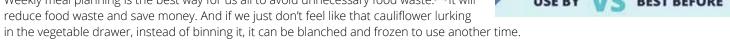
Whitley Community Development Association

Whitley Community Development Association (WCDA) rescues food from landfill, that is safe to eat and provides it to the community. There is no means testing, the food is available to everyone. WCDA works with partner charities, Communicare and Reading Welfare Rights, to support residents with benefits and other welfare advice. WCDA builds trust with local residents thus enabling them to feel more comfortable in accessing a wider range of support from agencies they may previously have been reluctant to access. The organisation believes strongly that poverty does not equate to losing your pride.

There's a big difference between Best Before' labels and 'Use by Date' labels and it's easy to get confused. We need to remember that the 'Best Before Date' on the label doesn't mean that the food will be unsafe after that date, it just won't be at its best.[35]

However, the 'Use By Date' needs to be taken seriously as its focus is food safety. It's important to dispose of food responsibly if the 'Use by' date has passed. [35]

Weekly meal planning is the best way for us all to avoid unnecessary food waste.[36] It will reduce food waste and save money. And if we just don't feel like that cauliflower lurking



Before grocery shopping, check food cupboards and the fridge to see what can be used in next week's dishes and which ingredients are approaching their use-by date. Write a shopping list and stick to it.

Here are some other ideas for easy meal planning:

- Inexpensive, seasonal vegetables make tasty soups, from a simple leek and potato to a warming, spicy mulligatawny. www.bbcgoodfood.com/recipes/leek-potato-soup
- Make family mealtime fun by making pizza faces ready-made bases, wraps or even crispy toast can be topped with cooked chopped onion and tomatoes, frozen sweetcorn, leftover sausage slices and home-grated cheese.
- A weekly chicken, roasted in the oven with potatoes, onions and carrots, will provide leftovers for school lunches and salads. And you can make stock with the bones!
- Love your leftovers omelettes, pasta sauces, risottos and stir fries can all be made even tastier with chunks of Sunday roast, cubes of cheese and a garlic clove or two.

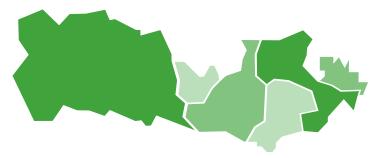


One more thing – always remember to check that the temperature of your fridge is set between 2°C – 5°C. This will ensure that your food stays fresh and edible for as long as possible.



Net Zero Carbon Research report puts Berkshire in the driving seat of our green future

Thames Valley Berkshire Local Enterprise Partnership (LEP) has published the first Berkshire Net Zero Carbon Research Report, sharing the first in a series of priorities that will ensure that Berkshire plays a leading role in the UK's drive to net zero carbon emissions. It's clear that the key to securing a sustainable future for our planet is to motivate all communities to work together to become carbon neutral. The full report is available to download here.



Our six Berkshire local authorities have all made climate change commitments through local strategies and plans. These recognise the importance of taking action now to achieve the national target of net zero carbon emissions by 2050.

Our plans focus on what can be done locally to make a difference, from reducing food waste and increasing recycling, to planting more trees and encouraging the development of community garden schemes.

Find out more about what your local authority has pledged by clicking on the links below:













Filling Good

Filling Good is a not for profit and locally owned community low waste shop. Its aim is to provide the most environmentally friendly, ethical, local, affordable, and waste-free products as possible, to inspire a sustainable lifestyle. It works on the basis that you bring your own containers, weigh them, fill them, and pay. There is a large product range, from any item (frozen or dried goods) all the way to washing detergent, clothes, and skincare products etc.



Waste not want not

All six of our local authority climate strategies are designed to reduce the amount of unnecessary, perfectly good food being sent to landfill. Rotting food produces methane, a greenhouse gas even more potent than carbon dioxide. If we stopped wasting food, about 6-8% of all human-caused greenhouse gas emissions could be eliminated.^[33] Now more than ever, we need to remove food waste from our lives by avoiding over-shopping for groceries through knowing what's in our fridge/cupboards, careful menu planning and making the best use of left overs.

Across Reading, Bracknell, and Wokingham about 33% of waste materials for disposal by weight is food waste.^[32] In Bracknell Forest in 2020, 16,516 tonnes of food ended up as refuse. In Reading, this was 12,590 tonnes.^[32] These statistics are alarming and we need to take urgent action to prevent all this unnecessary waste.

Addressing food transportation is key if we want to reduce emissions that are damaging the atmosphere. The good news is that extensive green public transport projects and electrical vehicle policies are already up and running in Berkshire.



Bracknell Forest, RBWM, Reading, Slough, West Berkshire and Wokingham are all committed to reducing food waste through increasing food recycling via food waste collection. [37][38][39][40][41][42] Reading aims to increase kerbside food and waste recycling by 7% through waste collection and RBWM aims to increase food waste collection by 10%. [38][39] This is being delivered through food waste recycling bins. Bracknell and Reading have reported a reduction of 3,764 and 5,150 tonnes of food waste since the introduction of food recycling bins. [32]

Large distributors

A key national distribution company in Berkshire, Brakes, is working hard to reduce its impact on the environment in terms of food sustainability and states it is carbon neutral with no waste going to landfill. The company estimates that it is providing on average 3 tonnes of food per week to local charities and community organisations, which would otherwise have gone to waste. It also delivers waste to anaerobic waste systems, an effective way of reducing environmental impact. Plus, Brakes states that it is carbon neutral with no waste going to landfill.

There are many stores in Bracknell which support local organisations by providing food which would have otherwise been



wasted. It's encouraging to see that this trend is increasing in our area, for not only does it lead to a reduction in food waste, but it also helps those most in need. Waitrose recently produced a Food Waste Reduction Roadmap, endorsed by their own suppliers. This focuses on donating 7 million meals, representing 3 million kilos of food, saving nearly 9.5 million kilos of CO2. [43]



Additionally, some supermarkets have a less than perfect or wonky shape range, selling fruit and vegetables at a lower price due to their appearance. In the past, this food would usually have been thrown out, despite the taste and nutritional food being exactly the same. It's shocking to discover that over 3.6 million tonnes of food are wasted every year before it even reaches supermarket doors, due mainly to cosmetic specification. [44] Remember – it's what it tastes like that counts, not what it looks like!

Although many large food distributors are working constructively to improve food sustainability, we must remember that, according to the Waste & Resources Action Programme (WRAP), 70% of all

food wasted in the UK takes place in the household.[45]



How can you as an individual, a family or an organisation reduce food waste further?

Global food

By 2050 it is predicted that there will be 10 billion people on the planet, two billion more than now – that's an increase of the entire population of Europe and Africa combined. To feed them, we'll need about an extra billion tonnes of cereal crops and 200 million more tonnes of meat every year.^[46]

Did you know that today:

- Over 840 million people in the world go hungry every day yet 1.5 billion are overweight or obese. There's enough food to feed everyone on the planet but the global food system is unequal.[47]
- A third of all food goes to waste.[48]
- Food prices are volatile, meaning they go up and go down depending on the season, availability, production and transport costs.^[49]
- 53% of the world's fisheries are at maximum capacity; 28% are over-exploited.^[50]
- Climate change is reducing crop yields the impact of warmer temperatures and increased (or decreased) rainfall is reducing the global production of staples such as rice and wheat. (Institute of Environment, 2021).^[51]
- Rising energy costs make food more expensive to produce and distribute. [52]
- Agriculture is the largest global contributor of non-CO2 greenhouse gas emissions. [53]
- Agriculture has caused 75% of world deforestation, to produce more palm and soy oil, and for intensive meat and dairy production, including animal feed crops.^[53]



By 2050, it is predicted that we'll have over 6 million **more** mouths to feed in the UK – that's twice the current population of Wales. And our eating habits are changing, with 27% of adults eating at least one meal outside the home each week and 20% of us having a weekly take-away.

With the dramatic and continuous rise in the cost of living when many people are looking to cut back and economise where possible, it is an ideal time to reverse these eating habits and shop local for healthy, nutritious and sustainable food cooked at home.

We are still doing most of our food shopping in supermarkets but there have been changes in how we shop for food and what we buy. We are increasing our use of:

- Online grocery shopping and fresh produce delivery boxes
- Digital takeaway apps
- Ultra-processed food, made in factories with industrial ingredients and additives, which now account for 50% of food purchases with UK shoppers buying more ultra-processed food than any other country in Europe. [56]
- Imported food in 1988 the UK imported a third of its food. Now we import 50%. [57]
- Ethical, sustainable and healthy food which now makes up 11% of our shopping with meat consumption falling by just under 17% between 2008 and 2019.^[58]
- Vegan and vegetarian diets, which have been adopted by 25% of 18 year-olds (YouGov). [59]

GOV UK - Food statistics pocketbook: prices and expenditure

What's leading our purchasing choices?

- Price
- Value for money
- Availability
- Advertising

Only **8% – 10% of average outgoings is spent on food in the UK** – less than any country in the world apart from the US and Singapore. ^[60]Back in the 1950s, the figure was **33%.** ^[61]



Even so, vulnerability to food insecurity has increased sharply over the last twenty years, according to the independent Food Aid Network. Even though there are at least twice as many food banks (2,600 plus) as McDonalds (1,300) in this country. [62] only one in seven people suffering from food insecurity makes use of them. So, once again, it's those who are most disadvantaged already who suffer the most deprivation, often resulting in poor health outcomes.

Pandemic pressures on our planet

The good news is that food waste fell by 34% in the first national lockdown^[63] which shows that, through careful planning and purchasing, we can all waste less food, save money and help our planet

Did you know that the average person makes 221 trips to the supermarket every year? [64] The fact that trips to supermarkets were much less common during lockdown undoubtedly contributed to this reduction in food waste.



However... food and drink sales rose by 11% in 2020^[65]



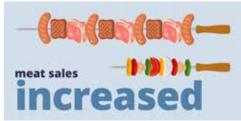
Calorie consumption rose between 5%-15%^[66]



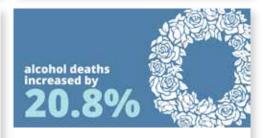
Alcohol sales rose by 27.6%^[66]



Frozen meal sales rose by 19.1%^[67]



Purchases of chicken, beef and pork products increased in 2020, even though there are many plant-based products available^[67]



Deaths from alcoholic liver disease increased by 20.8%^[66]



Why can't everyone access a healthy, balanced plateful of food every day like the one in the picture above?

It is not simply the case that people from different socio-economic groups choose different lifestyle behaviours: the behaviours are shaped by the social and economic environments in which people live. For example, whether a person eats a healthy diet or not is not only dependent on choice but also on what food is accessible to them and how affordable it is. Affordability is dependent on agricultural policy, taxation, and the regulation of the content of processed food and drink^[73]. In 2021, the households amongst the poorest 5th of all households in England would have to spend 40% of their disposable income on food to meet Eatwell Guide costs compared to 7% of the richest 5th of all households^[74].

It's shocking to learn that those with the lowest income would need to spend 74% of their disposable income on food^[68] to meet the government's official healthy eating recommendations.^[69] This compares with only 6% of disposable income for the richest 10%.^[64]

Adults living in the most deprived 40% of areas are significantly more likely than average to be overweight or obese as are children when measured in reception year and year six^[71]. People living in areas of deprivation are also more likely to have multiple behavioural risk factors further increasing their likelihood of ill health and dying prematurely^[72].

We have seen the impact of COVID-19 on people who are obese who are at a much greater risk of a poorer outcome if they contract the infection. In July 2020, Public Health England estimated that having a BMI of 35 to 40 could increase a person's chance of dying from COVID-19 by 40%, while a BMI greater than 40 could increase this risk by as much as 90%. People who are severely overweight are more likely to suffer from other conditions such as diabetes and heart disease, leading to an increased risk of dying from COVID-19; and being obese appears to have an additional damaging effect of its own.

So, we're back to the bitter truth that those who are most disadvantaged in our society suffer the greatest negative impact in terms of health. It's little wonder that cheap, overly processed food is so appealing to those on a very tight budget.



Cost – many fresh foods cost up to three times more, calorie for calorie, than highly processed alternatives – so buy some of those 'wonky' vegetables and fruit from supermarkets that offer them. They taste just as good and cost much less. And remember to use fresh produce quickly or freeze it.

https://cookingonabootstrap.com/



Kitchen appliances – 2.8 million people in the UK don't own a freezer, 1.9 million live without a cooker and just under 1 million have no fridge. [70] And money to pay for the power to run these appliances is tight.

www.moneysavingexpert.com provides links to councils, charities and energy advice lines which can help.



Over 3 million people in the UK can't reach a shop selling fresh ingredients within 15 minutes, by public transport. Many can't afford public transport at all, so choice is limited. Across Berkshire, there are various community transport schemes for those who cannot access mainstream public transport, including 'dial a ride' services, and voluntary car share. Berkshire Community Transport. Schemes | Elderly Care in Berkshire (agespace.org)

If you are a job seeker actively seeking work, you may also be eligible for reduced bus fares in certain areas, for example through Reading Buses. lobseekers – Reading Buses

obseekers – Reading Buse (reading-buses.co.uk)



Local projects

There are some really great initiatives across Berkshire that demonstrate how to prevent wasting food surplus in major outlets whilst at the same time, providing access to free and good food to our residents who can benefit. In addition, every opportunity to encourage food growing should be taken, in a variety of settings such as at school, at home, in allotments. There are so many benefits not least the social interaction and physical activity it can bring.



Share Wokingham

Offers a range of free fresh produce which are end-of-day items or surplus stock from local supermarkets – no referral needed – just pop along.

www.sharewokingham.co.uk



Slough Allotment Project

A friendly, free gardening group for new mums and pregnant women to connect with nature, grow and harvest plants and build friendships while supporting physical and emotional wellbeing.

Slough Services Guide | Slough allotment project for pregnant and new mums



ReadingCAN

Climate Action Network is a voluntary, multi-stakeholder group working together towards a net zero, climate change resilient town by 2030. Lots of great tips for schools included.

https://readingcan.org.uk

What to Do about Climate Change — Tips for Schools by ReadingCAN



West Berkshire Community Hospital

(WBCH) has a therapy garden which provides an invaluable oasis and resource for patients, their visitors and carers as well as staff

Therapy garden case study WBCH (final).docx (sharepoint.com)



Sure Start Whitley day nursery

Are ensuring their children develop environmentally healthy habits early on. They have planted a range of herbs, fruit and veg which the children are actively growing for eating at the nursery, thereby learning new words and observing nature at its best.

Sure Start Whitley Day Nursery | Reading Services Guide



Food4Families in Reading

A charity that supports residents learning about sustainable food choices through their allotments, outreach sessions and cookery courses, promoting healthy lifestyles and environmentally sustainable meals.

www.food4families.org.uk



Whitley Community Development Association

South Reading Community Hub has been distributing free food to the local community that has been 'rescued from landfill', for example food at its best before date, or overstocked. The food is available to all residents.

Whitley Community Development
Association



Shop Local, Shop Green

Showcases the best local and independent business in West Berkshire to encourage long-term changes to shopping habits.

https://info.westberks.gov.uk/ CHttpHandler.ashx?id=51



Hampstead Norreys Community Shop & Café

A multi-award-winning business where sustainability informs all its activities, from community projects to locally made artisan products to the sourcing of environmentally-friendly packaging and ingredients.

www.hncs.co.uk



Colleton Primary school in Wokingham

Has sustainability as a key part of its ethos. It runs an integrated skills-based cooking curriculum and focuses on growing seasonal fruit and veg for the children to cook with, caring for chickens and bees at school, leaf picking to make leaf mulch and composting, plus recycling plastics. Up to 60 mixed age pupils attend the weekly Gardening Club to develop their skills and try food grown and harvested by them, on site. There's even an annual 'MasterChef competition!

Home - Colleton Primary School



Bracknell Forest Council

Offers a free composter to residents willing to downsize their general waste bin to a small one. They also sell compost from recycled garden waste at many recycling centres and provide links to suppliers of food digestors, water butts and wormeries at competitive prices.

Composting | Bracknell Forest Council (bracknell-forest.gov.uk)



Reading University -Menus of Change

Thanks to economies of scale, the university offers freshly prepared meals, avoiding excess salt, removing highly processed foods and adopting a plantforward approach, for as little as £3. Ingredients are sourced from sustainable producers, including beef and fruit from the University's farms. Research is exploring the benefits to academic performance.

www.givingfoodmorethought.com

National projects

There are lots of great initiatives going on around the country and here are a few examples to give a flavour of what's possible locally, either at work or at home:



Switch Up Your Lunch

Oxford's annual veg pledge to encourage residents to eat well – more veg, less meat, using better quality animal products.

www.goodfoodoxford.org



Fairshare

A national network of charitable food distribution to school breakfast clubs, homeless shelters and older people's lunch clubs.

www.fairshare.org.uk



Edible Playgrounds

A schools' project to teach city children about growing and cooking healthy food.

https://voutu.be/wc80FUbOndM



Veg Cities

22 cities aim to increase availability and consumption of vegetables – already resulting in an extra 9.4 million portions of veg served by caterers, 7200 people trained in vegetable growing or cooking and 250 food waste projects.

www.vegcities.org



Good to Grow

An online platform and network encouraging involvement in local community gardens.

www.goodtogrowuk.org



UK Harvest

This food education charity redistributes quality excess food, collecting from many types of food providers and delivering directly to charities. Also partners with food manufacturer to repurpose surplus food into ready-to-eat meals for homeless refugees.

www.ukharvest.org.uk



What can we do as individuals to leave a better footprint on planet Earth?

We can start by looking carefully at our shopping bags...

- Fresh fruit, vegetables, meat and fish have they been farmed in the UK? Are they wrapped in plastic? Could we buy local, seasonal and packaging-free at a market, butcher or fish stall instead?
- Basics like bread check the ingredients are free of palm or soy oil and that sugar and salt haven't been added in large quantities. Also remember that fructose is often as bad as glucose
- Cereal a teaspoon of sugar weighs 5g check how much is in each serving of breakfast cereal how about porridge instead?
- Processed food have a look at the ingredients what are the additives for? Many orange cheeses are only orange because of added food colouring.
- Not all processed food is bad. Quick freezing preserves vegetables for longer, like peas. It's the ultra-processed food that isn't good for us as it will contain chemicals, colourings, sweeteners and preservatives.
- Not all vegan meals are healthy! If they're ultra-processed, they may have unhealthy amounts of salt, sugar, fat and additives check the traffic-light labels.
- Food miles where have the noodles and vegetables in a tub of stir-fry come from? Could we make the sauce ourselves, using mainly seasonal vegetables?
- We're still drinking 2.54 billion litres of bottled water in the UK every year. Tap water is safe. Metal bottles keep water cool. Ditch plastic bottles of water! Or why not try out one of the tens of thousands of Chilly's Refill stations? Just look for the sticker, go in and ask for water bottles to be filled up for free.
- When food goes past its use-by date, don't put it in the rubbish bin, either compost it in the garden or pop it in the special food waste recycling bins.

Cupboard love - healthy, inexpensive staples



- Tins of beans and pulses are ideal for bulking up stews and salads
- Tinned tomatoes are brilliant for pasta sauces, pizzas and adding to casseroles
- Tinned tuna, mackerel and sardines are tasty and great sources of Omega 3
- Oats are useful for breakfast porridge, fruit crumbles and granola bars
- Nuts can be expensive but a small handful of unsalted nuts is a good high protein snack

Conclusions

We can all make a difference and improve the health of ourselves and planet Earth by taking simple steps when thinking about the food we eat – where it has come from, how it has been grown and how we shop for our groceries. Shop for what you need, know what's in your fridge and avoid packaging where possible, cut down or stop buying pre-prepared ready meals, and check food labels to avoid high salt and sugar content. Need inspiration? Check out online recipes and cookbooks at your local charity shop.

It really is just a lifestyle and mindset change and we all have the choice to make that change. How about spending more on fresh, healthy ingredients and less on takeaways and ready meals? Better quality, less quantity. Collectively these small changes can make a big difference.



Just one half of a degree more of global warming will be a disaster for the earth, the birds, bees and animals who live on it, for us as these extreme weather conditions will continue and for the future of our children and grandchildren. In just 10 years, from 2011-2020, planet Earth was the warmest on record. We can reverse this trend, together.

So let's stop eating junk food and think about the footprint we are leaving on planet Earth and find ways to improve it. Your personal health and the health of our planet will thank you.

Recommendations

Shopping for your food

- Plan your meals to avoid over-buying which can lead to unnecessary waste
- Buy local and seasonal groceries as this will usually mean a reduction in transportation (fuel, CO2, energy) and often packaging, and they taste better
- If near to you, visit the smaller grocery shops and more visit them regularly to cut down on food waste often caused by over-buying in the big supermarkets
- Reduce the amount of farmed meat you eat and replace with fresh line caught fish, free range or organic chicken, pulses and vegetables and plant based products like tofu
- Check out the packaging and where possible, opt for compostable or recyclable packaging or better still, choose unpackaged food from local shops, markets, farm shops

Waste not want not

- Use leftovers (safely of course) to make snacks and meals like soups, sandwich fillers, casseroles
- Learn to make compost from peelings/tea leaves, coffee grounds and egg shells
- Learn to grow your own herbs and veg

Learn to grow your own

- Grow your own fresh herbs and vegetables; a few pots on a window sill, or even in the kitchen by the window, will work perfectly for herbs and tomatoes.
- Allocate a section of your garden (if you have one) to growing fruit and veg from peas to potatoes, radishes to raspberries

Disposing of any food waste

- Don't forget to use your food waste bin for vegetable peelings, egg shells, coffee grounds, tea leaves and more
- Consider creating your own compost heap from vegetable and fruit peelings your Council may offer food composting bins

For local organisations

- Pledge your school, your business, your organisation to improve its footprint on planet Earth and take steps to make a positive impact
- · Drive shared learning about sustainable food to encourage engagement and empowerment in this agenda
- Encourage community projects from allotments to care home gardens to donations of surplus food to food collection centres like Share in Wokingham and Bracknell
- Develop Community Workshops and Focus Groups aimed at mobilising your area to grow their own, avoid food waste and learn to shop efficiently

References

[1] Excess weight and COVID-19: insights from new evidence (2020)

Blackshaw, J., Feeley, A., Mabbs, L., Niblett, P., Atherton, E., Elsom, R., Hung, E. and Tedstone, A.

Available at: <a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/uploads/system/upload

[2] UN Climate Change Conference UK (2021)

COP26

Available at: https://ukcop26.org/ (Accessed 2022-03-01)

^[3] Global Warming of 1.5 °C (2021)

IPCC

Available at: https://www.ipcc.ch/sr15/ (Accessed 2022-03-01)

[4] GLOBAL METHANE ASSESSMENT (2021)

United Nations Environment Programme

Available at: https://www.ccacoalition.org/sites/default/files/resources/2021_Global-Methane_Assessment_full_0.pdf (Accessed 2022-03-01)

^[5] About Methane (2020)

National Atmospheric Emissions Inventory

Available at: <a href="https://naei.beis.gov.uk/overview/pollutants?pollutant_id=3#:~:text=Methane%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20contributes%20to%20climate%20climate%20contributes%20to%20climate%20climate%20climate%20climate%20climate%20climate%20

^[6] Historic Chemical Landmarks. Chlorofluorocarbons and Ozone Depletion

American Chemical Society National

Available at: http://www.acs.org/content/acs/en/education/whatischemistry/landmarks/cfcs-ozone.html (Accessed 2022-03-01)

[7] When the world actually solved an environmental crisis (2021)

VOX

Available at: https://www.vox.com/future-perfect/22686105/future-of-life-ozone-hole-environmental-crisis_(Accessed 2022-03-01)

[8] Carrier bags: why there's a charge (2021)

Department for Environment & Rural Affairs

Available at: https://www.gov.uk/government/publications/single-use-plastic-carrier-bags-why-were-introducing-the-charge/carrier-bags-why-theres-a-5p-charge (Accessed 2022-03-01)

[9] Excess weight can increase risk of serious illness and death from COVID-19 (2020)

Public Health England

Available at: https://www.gov.uk/government/news/excess-weight-can-increase-risk-of-serious-illness-and-death-from-covid-19 (Accessed 2022-03-01)

[10] Holocene global mean surface temperature, a multi-method reconstruction approach. Scientific data, 7(1), pp.1-13 (2020) Kaufman, D., McKay, N., Routson, C., Erb, M., Dätwyler, C., Sommer, P.S., Heiri, O. and Davis, B.

[11] What is climate change? (2021)

United Nations

Available at: https://www.un.org/en/climatechange/what-is-climate-change (Accessed 2022-03-01)

[12] Deforestation explained

National Geographic

Available at: https://www.nationalgeographic.com/environment/article/deforestation (Accessed 2022-03-01)

[13] Meat in your diet (2021)

National Health Service

Available at: https://www.nhs.uk/live-well/eat-well/meat-nutrition/ (Accessed 2022-03-01)

[14] Biodiversity loss: what is causing it and why is it a concern? (2021)

European Parliament

Available at: https://www.europarl.europa.eu/news/en/headlines/society/20200109STO69929/biodiversity-loss-what-is-causing-it-and-why-is-it-a-concern (Accessed 2022-03-01)

[15] 14 factors you need to know about bees

Friends of the Earth

Available at: https://friendsoftheearth.uk/nature/14-facts-you-need-know-about-bees#:~:text=lt's%20tempting%20to%20think%20 bees, year%20to%20pollinate%20our%20crops (Accessed 2022-03-01)

[16] The Bee cause, are bees endangered?

Friends of the Earth

Available at: https://friendsoftheearth.uk/bees (Accessed 2022-03-01)

[17] The dirty dozen

Pesticide Action Network UK

Available at: https://www.pan-uk.org/dirty-dozen/ (Accessed 2022-03-01)

[18] Grapes top of list for pesticide residues (2021)

Wicked Leeks

Available at: https://wickedleeks.riverford.co.uk/news/biodiversity-health/grapes-top-list-pesticide-residues (Accessed 2022-03-01)

[19] We spoke to an EU fisheries insider about North Sea Cod losing its MSC certification (2019)

Sustainable fisheries

Available at: https://sustainablefisheries-uw.org/north-sea-cod-msc/ (Accessed 2022-03-01)

[20] About Montreal Protocol

United Nations

Available at: https://www.unep.org/ozonaction/who-we-are/about-montreal-protocol (Accessed 2022-03-01)

[21] Food production is responsible for one-quarter of the world's greenhouse gas emissions (2019)

Our World in Data

Available at: https://ourworldindata.org/food-ghg-emissions#:~:text=The%20visualization%20shown%20here%20%E2%80%93%20based,26%25%20of%20global%20GHG%20emissions (Accessed 2022-03-01)

[22] Greenpeace blocks destructive fishing with new 'boulder barrier' off the coast of Brighton (2021)

Greenpeace

Available at: https://www.greenpeace.org.uk/news/live-greenpeace-boulders-brighton-fishing/ (Accessed 2022-03-01)

[23] Cimate gap report (2021)

Ethical Consumer

Available at: https://research.ethicalconsumer.org/research-hub/ethical-consumption-review/climate-gap-report-2021 (Accessed 2022-03-01)

[24] *Butter & speads (2021)*

Ethical Consumer

Available at: https://www.ethicalconsumer.org/food-drink/shopping-guide/butter-spreads (Accessed 2022-03-01)

[25] The carbon footprint of everything - ch. How bad are bananas? (Profile Books)

Berners-Lee, M., 2020

[26] Media coverage of British livestock farming in 2019 (2019)

NFU

Available at: https://www.nfuonline.com/archive?treeid=118795 (Accessed 2022-03-01)

[27] Is grass-fed beef good or bad for the climate? (2017)

Oxford University

Available at: https://www.ox.ac.uk/news/2017-10-03-grass-fed-beef-good-or-bad-climate (Accessed 2022-03-01)

[28] The validity of food miles as an indicator of sustainable development-final report (REPORT ED50254)

Smith, A., Watkiss, P., Tweddle, G., McKinnon, A., Browne, M., Hunt, A., Treleven, C., Nash, C. and Cross, S., 2005

[29] *Sustainable food (2022)*

BBC Bitesize

Available at: https://www.bbc.co.uk/bitesize/topics/zfmpb9q/articles/zs9gsk7 (Accessed 2022-03-01)

[30] Morrisons promises not to adopt brands using fake farm names (2017)

The Guardian

Available at: https://www.theguardian.com/business/2017/aug/09/morrisons-promises-not-to-carry-brands-using-fake-farm-names-nfu#:~:text=Supermarket%20chain%20Morrisons%20has%20pledged,Union%20and%20concerns%20bv%20shoppers_(Accessed 2022-03-01)

[31] Volume of household waste collected by local authorities per capita in England from 2010 to 2019* (2021)

Statista

Available at: https://www.statista.com/statistics/322535/total-household-waste-volumes-in-england-uk-per-person/#:~:text=Households%20 alone%20generated%20an%20estimated,of%20food%20waste%20per%20person (Accessed 2022-03-01)

[32] Strategy (2018-2020)

Re3

Available at: https://re3.fccenvironment.co.uk/wp-content/uploads/2019/03/re3-Strategy-2018-2020.pdf (Accessed 2021-11-01)

[33] Fight climate change by preventing food waste

WWF

Available at: https://www.worldwildlife.org/stories/fight-climate-change-by-preventing-food-waste (Accessed 2021-11-19)

[34] Restricting promotions of products high in fat, sugar and salt by location and by price: government response to public consultation (2021) Department of Health and Social Care

Available at: <a href="https://www.gov.uk/government/consultations/restricting-promotions-of-food-and-drink-that-is-high-in-fat-sugar-and-salt/outcome/restricting-promotions-of-products-high-in-fat-sugar-and-salt-by-location-and-by-price-government-response-to-public-consultation%20(Accessed%2001/03/2022 (Accessed 2022-03-01)

[35] Best before and use by dates. (2021)

Food Standards Agency

Available at: https://www.food.gov.uk/safety-hygiene/best-before-and-use-by-dates (Accessed 2021-11-19)

[36] Meal plan and recipes. (2022)

Stop Food Waste

Available at: https://stopfoodwaste.ie/resource/meal-planning (Accessed 2021-11-19)

[37] Bracknell Climate Strategy 2020-2024

Bracknell Forest Council

Available at: https://www.bracknell-forest.gov.uk/council-and-democracy/strategies-plans-and-policies/climate-change/climate-change/strategy (Accessed 2021-10-15)

[38] Environment and Climate Change Strategy 2020-2025

Royal Borough of Windsor and Maidenhead Council

Available at: https://www.rbwm.gov.uk/home/environment-and-waste/energy-and-sustainability/environment-and-climate-strategy (Accessed 2021-10-15)

[39] The Reading Climate Emergency Strategy 2020-25

Reading Borough Council

Available at: https://www.reading.gov.uk/climate-and-pollution/climate-change/ (Accessed 2021-10-15)

[40] Climate Change Strategy and Action Plan

Slough Borough Council

Available at: https://www.slough.gov.uk/strategies-plans-policies/climate-change/2 (Accessed 2021-10-12)

[41] Environment Strategy 2020-2030

West Berkshire Council

Available at: https://www.westberks.gov.uk/media/48361/Draft-Environment-Strategy-2020-2030-January-2020/pdf/WBC_Environmental_Strategy_A4_20.pdf?m=637141847751130000 (Accessed 2021-10-15)

[42] Climate Strategy, Climate Emergency Action Plan

Wokingham Council

Available at: <a href="https://www.wokingham.gov.uk/council-and-meetings/open-data/climate-emergency/#:~:text=Our%20plan%20to%20tackle%20climate%20change&text=Generate%20more%20renewable%20energy%20in,people%20and%20support%20sustainable%20schools (Accessed 2021-10-15)

[43] We want all our food to be eaten (2021)

Waitrose

Available at: https://www.waitrose.com/ecom/content/about-us/sustainability/food-waste (Accessed 2021-11-01)

[44] Tackling on farm-food waste key to increasing profits by a fifth (2021)

WRAP

Available at: <a href="https://wrap.org.uk/media-centre/press-releases/tackling-farm-food-waste-key-increasing-profits-fifth#:~:text=An%20estimated%203.6%20million%20tonnes,agriculture%2C%20worth%20%C2%A31.2%20billion (Accessed 2022-03-02)

[45] Estimates of Food Surplus and Waste Arisings in the UK. (2017)

WRAP

Available at: https://wrap.org.uk/resources/report/estimates-food-surplus-and-waste-arisings-uk-2017 (Accessed 2021-11-01)

[46] How to feed the world in 2050 (2009)

Food and Agriculture Organization of the United Nations

Available at: https://www.fao.org/fileadmin/templates/wsfs/docs/expert_paper/How_to_Feed_the_World_in_2050.pdf (Accessed 2021-11-01)

[47] World Hunger Statistics 2020 (2020)

Food aid Foundation

Available at: https://www.foodaidfoundation.org/world-hunger-statistics-2020/ (Accessed 2022-03-01)

[48] Global food losses and food waste (2011)

Gustavsson, J., Cederberg, C., Sonesson, U., Van Otterdijk, R. and Meybeck, A.

[49] The Oxford handbook of the economics of food consumption and policy (2011), ch. Increasing and more volatile food prices and the consumer, pp.612-628

Braun, J.V.

[50] The state of world fisheries and aquaculture 2012

Mathiesen, Á.M., 2015

[51] Discovering Solutions to Earth's Greatest Environmental Challenges

University of Minessota

Available at: http://environment.umn.edu/ (Accessed 2022-03-01)

[52] Surging food prices push inflation to 30-year high (2022)

BBC

Available at: https://www.bbc.co.uk/news/business-60050699 (Accessed 2022-03-02)

[53] *Deforestation (2015)*

United Nations

Available at: https://www.un.org/sustainabledevelopment/blog/tag/deforestation/ (Accessed 2021-11-19)

[54] *Trend Deck 2021: Demographics (2021)*

Government Office for Science

Available at: https://www.gov.uk/government/publications/trend-deck-2021-demographics (Accessed 2022-03-02)

[55] Health matters: obesity and the food environment (2017)

Public Health England

Available at: https://www.gov.uk/government/publications/health-matters-obesity-and-the-food-environment/health-matters-obesity-and-the-food-environment-2 (Accessed 2022-03-02)

[56] Household availability of ultra-processed foods and obesity in nineteen European countries (2018) - Public health nutrition, 21(1), pp.18-26 Monteiro, C.A., Moubarac, J.C., Levy, R.B., Canella, D.S., da Costa Louzada, M.L. and Cannon, G.

[57] Food statistics in your pocket: prices and expenditure (2020)

Department for Environment Food & Rural Affairs

Available at: https://www.gov.uk/government/statistics/food-statistics-pocketbook/food-statistics-in-your-pocket-prices-and-expenditure (Accessed 2022-03-02)

[58] The UK Ethical Market (2018)

The Ethical Consumer

Available at: https://www.ethicalconsumer.org/retailers/uk-ethical-market (Accessed 2022-03-02)

[59] Veganuary helps Marks and Spencer reach new customers (2021)

YouGov

Available at: https://yougov.co.uk/topics/food/articles-reports/2021/02/24/veganuary-helps-marks-and-spencer-reach-new-custom (Accessed 2022-03-01)

[60] Why UK consumers spend 8% of their money on food (2020)

AHDB

Available at: https://ahdb.org.uk/news/consumer-insight-whv-uk-consumers-spend-8-of-their-money-on-food (Accessed 2022-03-02)

[61] See how much food prices compare to 30 years ago and you might be surprised (2019)

Which?

Available at: https://www.which.co.uk/news/2019/11/heres-how-our-food-prices-compare-to-30-years-ago-and-you-might-be-surprised/ (Accessed 2022-03-03)

[62] More Or Less

BBC

Available at: https://www.bbc.co.uk/programmes/p02nrss1/episodes/downloads (Accessed 2022-02-02)

[63] Lockdowns food waste lesson for the UK (2021)

UK Research and Innovation

Available at: https://www.ukri.org/our-work/tackling-the-impact-of-covid-19/recovery-and-rebuilding/lockdowns-food-waste-lesson-for-the-uk/ (Accessed 2021-10-07)

[64] Supermarkets (2021)

Ethical Consumer

Available at: https://www.ethicalconsumer.org/retailers/shopping-guide/supermarkets (Accessed 2022-03-02)

[65] The dietary impact of the COVID-19 pandemic (No. W21/18). IFS Working Paper. (2021)

O'Connell, M., Smith, K. and Stroud, R.

[66] Monitoring alcohol consumption and harm during the COVID-19 pandemic: summary (2021)

Public Health England

Available at: https://www.gov.uk/government/publications/alcohol-consumption-and-harm-during-the-covid-19-pandemic/monitoring-alcohol-consumption-and-harm-during-the-covid-19-pandemic/summary (Accessed 2021-10-14)

[67] Impact of COVID-19 pandemic on Grocery Shopping Behaviours (2020)

Public Health England

Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/932350/Grocery_Purchasing_Report.pdf (Accessed 2021-10-14)

[68] The plan (2021)

The National Food Strategy

Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1025825/national-food-strategy-the-plan.pdf (Accessed 2022-03-04)

[69] *The Eatwell Guide* (2022)

NHS

Available at: https://www.nhs.uk/live-well/eat-well/the-eatwell-guide/ (Accessed 2022-03-02)

[70] *Turn2Us*

Turn2Us

Available at: https://www.turn2us.org.uk/ (Accessed 2022-03-02)

[71] Obesity profile

Office for Health Improvement and Disparities

Available at: https://fingertips.phe.org.uk/profile/national-child-measurement-programme (Accessed 2022-05-18)

[72] Health Survey for England, 2017

NHS Digital

Available at: https://digital.nhs.uk/data-and-information/publications/statistical/health-survey-for-england/2018 (Accessed 2022-05-18)

[73] The Dahlgren-Whitehead model of health determinants: 30 years on and still chasing rainbows.

Dahlgren, G., & Whitehead, M.

[74] The Broken Plate Report, 2021

The Food Foundation

Available at: https://foodfoundation.org.uk/sites/default/files/2021-10/FF_Broken_Plate_Report-2021_Overview.pdf (Accessed 2022-05-18)