Foreword

WWF Cymru’s aim is to help create a Wales where people and nature can thrive, for generations to come.

Our work on sustainable development helped the passing of the Well-being of Future Generations Act into law in Wales in 2015. We want to see transformational change in the way that government thinks and acts – developing an approach which makes decisions in a joined-up, strategic way that considers the needs of the Wales and the world of the future.

We believe that the food sector provides the perfect opportunity to demonstrate the difference the Act can make to improved outcomes.

A well-functioning food system is crucial to our nation’s future. It’s central to our health and wellbeing, our culture, society and economy. Environmentally, it’s an important part of addressing the climate and nature crises we now face.

With this in mind, we commissioned the Sustainable Places Research Institute at Cardiff University to produce this report to help us understand what a food system fit for future generations could look like in Wales. The report is ambitious in providing ideas for immediate action as well as further discussion and research.

Despite agreement on the important contribution food makes to Wales’ future prosperity and sustainability, there are divergent opinions on which interventions to pursue. We therefore hope this paper will provide a useful contribution to the future food debate.

We would like to thank the Sustainable Places Research Institute for conducting this research and preparing a vision for the future of food in Wales.

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Dr Angelina Sanderson Bellamy,

Dr Sanderson Bellamy is a Research Fellow in the Sustainable Places Research Institute. Her expertise encompasses food production systems, land use and land cover change, ecological resilience and ecosystem services. She uses a social-ecological framework and interdisciplinary methods to investigate the drivers, particularly governance and support structures, of environmental change and the impact of land management on the delivery of ecosystem services. Her experience draws from working across Latin American and UK food landscapes, and she is the Principle Investigator for TGRAINS, a UKRI-funded project on how to make UK regional food systems healthier and more environmentally sustainable.

Professor Terry Marsden

Terry Marsden currently holds the established chair of Environmental Policy and Planning in the School of Geography and Planning at Cardiff University. He is Director of the Sustainable Places Research Institute at Cardiff. He researches the interdisciplinary social science and applied policy fields of rural geography, rural sociology, environmental sociology, geography and planning. Terry has published over 150 international journal articles, book chapters or books. This includes 20 research monographs and edited collections. This body of work ranges from original theoretical work in the field, through to empirical analysis and emerging policy impacts and analysis. It includes wide ranging work on the socio-economic restructuring of agriculture; theorisations and empirical investigations of rural development; analysis of agri-food chains and networks; and critical commentaries in the emerging fields of environmental sociology.
How to deliver healthy, nutritious food for all in the face of shrinking resources and a growing population, while addressing climate change and biodiversity loss, is a major challenge both globally and for Wales. A raft of recent reports have highlighted the need for food system change. We have an opportunity in Wales to design a food system that works hand-in-hand with nature and truly delivers well-being for future generations.

The Welsh food system forms part of a wider, international system, with much of our food economy integrated into UK-wide networks. This is recognised throughout the report, but the focus is on those issues where Wales has devolved authority to act. The Well-being of Future Generations Act, in particular, gives us the opportunity to adopt a leading role in the UK in developing food policies, within the wider UK context of Brexit and the severe challenges the UK food system faces.

Our food system encompasses a wide range of activities from farm to fork. A supply chain of producers, manufacturers, processors and retailers operates locally and globally, with consumers enjoying products from across the world as well as from local food businesses. The food system is a vital component of our economic, environmental, social and cultural well-being. It feeds us, provides jobs, and supports communities and culture. But there are systemic problems that need addressing urgently too. Many people in Wales cannot afford access to a healthy diet. The food system has negative impacts on the environment, public health and economic well-being. This hinders our ability to prosper as a nation both now and in the future.

Developing a food system strategy for Wales

To deliver a food system fit for future generations, with all the benefits this will bring, the Welsh government needs to develop a food system strategy for Wales. Drawing on recent international reports, scientific evidence and policy approaches in the UK and the EU and current food policies and legislative requirements in Wales, we recommend three major components in developing this strategy:

1.  Co-creating a new vision for Welsh food, based around 10 key interlinked themes
   - **The 10 key interlinked themes**
     1. Agroecological farming
     2. Agroecological farming skills
     3. Horticulture promotion
     4. Local food procurement
     5. Sustainable food hubs
     6. Food cooperatives
     7. Digital markets
     8. Sustainable dietary guidelines
     9. Quality food standards
     10. Promote Welsh food in a British Isles Context

   In building the local supply of healthy, sustainable and affordable food, Wales’s food and farming sector should regenerate its ecological foundation, restoring nature to provide the many functions and services that farmers and society rely on. We recommend that Wales makes this transformation to an agroecological farming region by 2050.

   Agroecology/Agroecological principles apply ecological concepts and principles to food production practices, managing interactions between plants, animals, humans and the environment for food security and nutrition. For example, an agroecological approach to soil health would one which focuses upon natural inputs and their retention. The diversity of practices within an agroecological system creates a more robust and resilient system that is less vulnerable to international market dynamics.

   Farming using agroecological principles will require a comprehensive package of training and skills. Welsh government should support the setup of regional training centres to drive collaboration and knowledge exchange, drawing upon the wealth of knowledge of farmers, businesses, and further and higher educational institutions. Training and business advice, as well as widening access to land, are also needed to increase small-scale horticultural production in Wales.

2.  Co-producing a new food system fit for future generations

   - **Wales celebrates and builds upon our Fairtrade Nation Status**
   - **Food supply chains in Wales are deforestation free**
   - **Food is used to celebrate our heritage and Welsh language**
   - **Everyone has access to healthy, affordable food**
   - **Everyone learns about food and how to grow and prepare nutritious meals**
   - **Wales' natural resources are managed sustainably with healthy ecosystems underpinning food production**
   - **Wales' food sector is a significant contributor to Wales’ net zero climate change target, with significant carbon stored on Welsh land**
   - **Wales’ nature based/biogeochemical farming systems help restore biodiversity, soil health, help prevent flooding and keep Wales’ air and water clean**
   - **Wales urgently needs to create an integrated, sustainable and just food system fit for future generations.**

   The Well-being of Future Generations (Wales) Act provides the vision and levers needed to achieve this transformation. It can facilitate a more joined-up approach across the food system, for example by linking agricultural policy with health policy and connecting the food we produce in Wales with the food we consume.

   The food sector provides an ideal opportunity to demonstrate how a systems approach can deliver a wide range of benefits under each of the Act’s seven well-being goals and apply the sustainable development principle as set out in the Act. With the right policies in place, re-localising our food production and consumption and promoting shorter supply chains can generate multiple benefits for the local economy, environment, health and well-being.

   **An integrated approach to food could contribute to each of the seven goals of the Well-being of Future Generations Act:**

   - **Economic well-being:**
     - Wales urgently needs to create an integrated, sustainable and just food system fit for future generations.
     - The Welsh government has declared a climate and nature emergency. Wales’s first State of Nature/Resources report concluded that none of Wales’s ecosystems have all the attributes required for resilience. Wales’s wildlife continues to decline, according to the State of Nature 2019 report, with the latest findings showing that one in six species are at risk of extinction.
     - Unsustainable agricultural management is the single largest driver of biodiversity decline, while agriculture accounts for 12% of Welsh greenhouse gas emissions.
     - Our food consumption also has global impacts, with palm oil packaged foods and soya grown to feed livestock driving deforestation.
   - **Affordability and diets:**
     - Resource to food banks is rising with The Trussell Trust network providing 153,373 three-day emergency food supplies in Wales in 2018/2019. One in five people in Wales worry about running out of food due to lack of funds according to the Food Standards Agency, and 90,000 children in Wales live in households for whom a healthy diet is increasingly unaffordable.
     - Meanwhile, rising rates of obesity cost the health service £73 million per year: 28% of children are obese, while 94% don’t eat the recommended five portions of fruit and vegetables a day.
   - **Environmental impacts:**
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2. Infrastructures: rebuilding sustainable food provision

Food infrastructures need rebuilding. To support local supply chains and rebalance the distribution of power, infrastructure is needed in towns and the countryside to link food producers to consumers in more diverse ways. This means more sites for food markets, community retailers and food processors, investment in food cooperatives and the development of a network of food hubs that aggregate and distribute local food. Local authorities should be required to make plans for developing food hubs, which could facilitate local and regional provisioning and procurement for the public sector as well as private buyers.

Wales should embrace and develop digital food markets and supply chains that link consumers with producers and food hubs. Increasing citizen ownership and involvement in a more localised food system can improve community cohesion as well as help shape what is produced and how. These re-localised infrastructures will also allow retailers to stock more local food produced through agroecological farming practices.

3. Delivery mechanisms

To realise the new food vision for Wales and build the necessary food infrastructure, an integrated set of policies and funding mechanisms need to be developed. Public Service Board Well-being Plans and Well-being Assessments, Natural Resources Wales’s Area Statements and the school curriculum should be key vehicles to deliver sustainable food production and consumption.

A new Wales Food Commission should be established to oversee the delivery of the food system strategy, comprising the Future Generations Commissioner, Area Statement leads, education and public health boards, Welsh government leads on food policy (including agriculture, procurement, health and social care) and food practitioners (including community-based organisations and environmental NGOs). We also recommend creating a National Universal Food Framework to ensure all Welsh people have the right to access healthy food.

Next steps

This report proposes a radical reconfiguring and realignment of food policy in Wales. We hope it provides ideas for immediate action as well as further discussion and research. We are keen to engage with stakeholders to identify areas of common ground and explore differences to help create a food system in Wales fit for future generations.
Since 2018, we have seen a range of high-level and international reports (e.g. EAT Lancet; IPES, RSA) demonstrating a more urgent need for an integrated systems approach to food and food policy. This sees the important changes in the food system as central for delivering on a number of global challenges, among them how we address biodiversity loss and climate change, food insecurity and health, as well as reducing the inefficiencies associated with food waste and especially plastics. The realisation is that it is no longer sufficient to talk about a more sustainable food system; but rather there is a need for a radical transformation of the system so as to deliver sustainable and healthy food for all in the face of shrinking resources and a growing global population.

The food system is vital for future generations to better safeguard their health and well-being, and environmental well-being which supports this. Yet at the moment, the global food system also forms a threat to future generations through its dysfunctional production, distribution and consumption practices, which endanger health, contribute to the nature and climate emergencies and food insecurity.

Ecosystem resilience and a strong healthy environment underpins the entire food and drink sector and provides the fundamental building blocks for food production. Without functional ecosystems and a biodiverse natural environment, our capacity to produce food is greatly reduced. In looking at the current state of Wales’ ecosystems, Wales’ First State of Natural Resources Report concluded that none of Wales’ ecosystems have all the attributes required for resilience. Wales’ wildlife continues to decline according to the State of Nature 2019 report with the latest findings showing that one in six species in Wales are at risk of extinction.

Unsustainable agricultural management is the single largest driver of biodiversity decline, while agriculture accounts for 12% of Welsh greenhouse gas emissions. Agricultural pollution is a contributor for why only 37% of all water bodies in Wales achieved good or better ecological status in 2016/2017.xvi In addition, the food landscape has changed dramatically over the last 60 years; with supply chains from farm-to-fork growing longer and more complex and the distribution of power becoming more concentrated through vertical integration of agri-food business activities. Seed companies and procurement organisations for supermarkets exert a major influence on what happens in other parts of the food system. A disproportionate amount of economic value is captured by corporate food processors and retailers, which squeezes the margins of local producers, independent retailers and Welsh consumers alike. Corporate food processors and retailers need to play a key and proactive role with respect to achieving transformations towards health and sustainability. A systems approach to addressing the food system could include requirements that retailers incorporate the costs of environmentally damaging operations and measures to make it more of food produced in their business model. This can be achieved for example through internalizing the costs of plastic waste generated, eliminating food waste and using circular economic practices to reduce overall waste.

From a governance perspective, the growing food crisis has made clear that food system outcomes are affected by a complex range of determinants and that traditional governmental efforts to steer these determinants through monocratic command and control strategies get stranded in siloed administrative systems, intractable controversies between opposing value systems, and power struggles between constellations of interests.xvii

The food system is referred to as a system because it is highly interconnected. Thinking systemically and of an interdisciplinary level can help ensure that challenges are tackled from multiple perspectives and in a holistic way (see figure 8 above). Many diseases and conditions have their origin in risk factors and are of Public Health Wales and Welsh Government have focused strategy on improving diets in its Healthy Weight Healthy Wales strategy—these policies do not yet cross over to other policy sectors that influence food and drink businesses, marketing and advertising, food production, zoning restrictions or influence the cost of living so that people can afford healthy diets.

Food also links to important biodiversity and climate change challenges. Wales’ food system needs to sufficiently account for its direct and indirect impacts on the environment. This has not been factored in strongly enough in recent consultations on the food sector in Wales, particularly the integrated impact assessment attached to the Developing Wales’ food and drink sector consultation which does not cover a full assessment of how much food plans should wholly apply the Environment Act, including part 1 (the sustainable management of natural resources) as Wales’ resources should be managed in a more proactive, sustainable and joined-up way. The Developing Wales’ food and drink sector consultation report addresses important themes of collaborative working across industry and promises important support for building skills within the sector that are vital for continuous development and prosperity of the food and drink industry. However, as an overarching food policy document, it takes too narrow an approach to the food system and misses an opportunity to more explicitly link up with other consultation reports.

The most recent Welsh Government Sustainable and Our Land consultation proposes a new land management system that uses tax payers’ money to promote resilient ecosystems and healthy, diverse, and rewarding farmland for farmers and restoring and protecting nature for the benefit of all people in Wales. This is a big change and an important step in the right direction from past farming policies that have shaped the way we farm the land. The proposals set out promising and innovative policies to address certain challenges in the agricultural sector. Again, this is just one part of the food system in Wales: sectoral approaches to food in Wales misses opportunities to achieve co-benefits that can result from combining approaches to healthy diets and sustainable agricultural practices.

The Well-being of Future Generations Act mandates alignment of policy across departments in support of its vision of well being for current and future generations. A clearly articulated overarching food system vision needs similarly to connect with policy across departments that can support its delivery. The food system vision that we propose below supports Welsh Government’s overarching vision for well being within the food system. This vision is necessary not least because of the existence of the Act, which proposes seven key interconnected principles to which public policies should collaboratively contribute. There appears to be a gap in current food strategy that, how and why we produce food should be incorporated into a food system strategy for Wales. The Sustainable Farming and Our Land consultation report discusses the possibility to directly limit financing towards the food supply chain where this can be shown to directly benefit producers. Here is an opportunity to directly link to the Developing Wales’ food and drink sector consultation report and policies therein that also support development of the food supply chain. The Healthy Weight Healthy Wales strategy could link with Sustainable Farming and Our Land and the educational curriculum by promoting horticultural production and consumption, thereby stimulating both demand and supply sides of the food system. Procurement strategies could also contribute to stimulating demand for sustainable agricultural and other food production in Wales. The ‘Sustainable Farming and Our Land’ consultation has already built in strategies to re-train land managers that may want to transfer to other land management systems, e.g. horticulture. Furthermore, the ‘Sustainable Farming and Our Land’ consultation also fails to connect up to the work done by Natural Resource Wales (NRW) to support Section 6 of the Environment Act on maintaining and improving ecosystem resilience. NRW has developed a series of attributes by which to achieve this (Biodiversity, Extent, Condition, Connectivity and Adaptability). However, this is never mentioned with respect to farm managers taking actions to deliver ecosystem services, which represents another missed opportunity.

There are a number of Welsh public bodies that have the potential to link up to the wider push for sustainable and nutritious diets, for example, FoodSense Wales operates a number of programmes, such as Peak Please (see case study 1 below) to promote increasing vegetable consumption.
The Public Health Boards run a number of programmes to address gaps in nutritional and cooking skills in the adult population. The ongoing redesign of the Wales School Curriculum would benefit from an overarching food system policy steer with respect to incorporating nutrition and cooking skills for 3-16 year olds. The current section of the education curriculum on health and Well-being represents an opportunity for integrating these themes, but this will come down to individual schools. This also illustrates the need to integrate food policy not just horizontally, but vertically from local, regional to national scales. Owing to the sectoral approach to food there are many opportunities for synergies that are being missed. A ‘joined-up’ food policy creates the framework, mandate and implementation plan for solving these and other problems. We particularly need to more clearly align food production and consumption in Wales.

However, creating an integrated policy approach to food systems is admittedly challenging. The intersections between policy systems are historically divided intellectually and departmentally. As a result, there is no institutional support for a food-focused approach and the instruments of multi-departmental policy making are in their infancy, there is no department of food. Whilst the Well-being of Future Generations Act mandates an integrated approach to working, the institutional structures have not changed to match or support this mandate, and the legacy of historical approaches creates a cultural barrier to overcome. Supporting new approaches means extensively confronting many existing and entrenched policy traditions and bureaucratic structures.

Take a food systems approach would thus mean understanding food as more than a marketable commodity, which creates problems for certain departments. Government has a responsibility to the public to ensure basic rights to food and food security in specific circumstances, especially where private markets are clearly failing to deliver sustainable forms of food security, food (and the capacity to produce food) needs to be delivered through both public and private means. As we will explain below, for example, we can argue that from a food systems point of view that policy in these areas are necessary in food markets in at least two important ways. (i) in defining the ways and practices in which food is produced (see section 42 below) for instance in restricting and banning pesticides use and certain types of animal disposal, and (ii) developing high public standards of food processing and labelling, as currently authorised by the Food Standards Agency.

Food policy needs development as a central part of public policy because a central guiding principle is that it is government’s responsibility to ensure minimum standards and rights to high quality and nutritional foods for all. It would also challenge many of the central tenets of current agricultural and economic development, and the healthcare system that concentrates on cures rather than prevention. This contrasts with the Well-being of Future Generations Act’s mandate for preventative ways of working.

Case Study 1: Peas Please - Food Sense Wales

Peas Please is a nationwide initiative driving systemic change in the food system to make it easier for all British citizens, particularly those on a low income, to eat more vegetables. Low consumption of vegetables is associated with 20,000 premature deaths each year and increasing the amount of vegetables that we eat can play a key role in the transition to healthy and sustainable diets.

Peas Please is on track to secure 100 pledges of action from businesses and Government operating along the supply chains, as well as commitments from city partnerships during 2020. The first monitoring report demonstrates that 4.8 million additional portions have been consumed during the campaigns. There was a 2.3% positive impact on vegetables sales with 46% said they recently tried new vegetables as a result. 82% of viewers liked the ad; 57% said it made vegetables more fun and 63% said it made them more approachable to children. Over two-thirds of children (69%) said the campaigns have reached 38 million people, with 44% of the viewers children. Over two-thirds of children (69%) said they like the ad; 57% said it made vegetables more fun and 46% said they recently tried new vegetables as a result. There was a 2.3% positive impact on vegetables sales during the campaigns.

Together Peas Please and Veg Power have the potential to drive an increase in vegetables consumption by working collaboratively with stakeholders across the whole food system to support a transition to healthy and sustainable diets.
3. The need

So, the questions for policy makers now become more challenging and urgent, and they specifically include:

1. How do we develop integrated strategies and actions which will shift the food system onto a more transformative pathway that can tackle poverty and generate multiple benefits for the local economy, environment, health and well-being?

2. How can consumers, processors, retailers and producers be encouraged to make these shifts?

3. How can a clearer and collective vision of a future Wales food system be built, articulated and communicated both to all stakeholders and the public, such that it becomes a major dimension of Welsh Public policy?

Whist the current Food Action Plan is one part of this, it does not provide a comprehensive Welsh food system strategy for the present and future generations. As a result, it does not meet the full demands of the Act’s well-being goals and ways of working. As noted above in section two, the current Food Action Plan needs to be integrated and embedded into a wider range of associated policy areas, including policies covered in the Sustainable Farming and Our Land consultation report and Healthy Weight – Healthy Wales Strategy Plan, to build a real and comprehensive national food system policy for Wales and align with the Act, and more broadly the UN Sustainable Development Goals. As stated above, Wales needs a systems approach to the food system that better connects food production, manufacturing and processing, retail and consumption. A systems approach is an opportunity to strengthen the integration of social, economic, cultural and environmental considerations by considering them together across departments, rather than one department focusing, for example, on environmental considerations with less attention or understanding given to social or economic elements. Integrating the Food Action Plan into a comprehensive approach to food system policy is made more complicated by the high level of integration of the Welsh food system with the UK food system, and the urgent, and they specifically include:

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Figure C: Outcomes of a Food System Fit for Future Generations

- Wales celebrates and builds upon our Fair Trade Nation Status
- Food supply chains in Wales are deforestation free
- Food is used to celebrate our heritage and Welsh language
- People come to Wales to experience our food, drink and hospitality
- Food is a fundamental part of the ‘Foundational Economy’
- Food and farming supports rural communities to thrive
- Food is used as a ‘convener’ to bring people together
- Civil society organisations, food hubs and cooperative bodies promote local food initiatives
- Everyone has access to healthy affordable food
- Co-productive approaches shape food provision in Wales
- Wales’s natural resources are managed sustainably with healthy ecosystems underpinning food production
- More healthy and sustainable Welsh food is supplied directly to our Welsh public sector and Welsh households
- The real living wage underpins the Welsh supply chain
- Wales’ food sector is a significant contributor to Wales’ net zero climate change target, with significant carbon stored on Welsh land
- Everyone eats more fruit and veg and eats less processed food
- Everyone learns about food and how to grow and prepare nutritious meals

3. Policy Context

3.1 An integrated approach: The Well-being of Future Generations Act, the seven well-being goals and the five ways of working

An integrated food system approach is not a new idea for Welsh Government; The National Assembly for Wales Climate Change, Environment and Rural Affairs Committee launched a report in May 2018, Refreshing food in Wales: Public procurement of food xxxiv and Chapter 1 considered the strategic direction of food policy and tasks whether an overarching food strategy is desirable and necessary. Their first conclusion states: “There is currently no need for a strategic vision for the Welsh food sector which makes connections between different policy areas, such as health, wellbeing and sustainability; alongside economic growth”. Over the past decade, Welsh Government has tried several times to address deficiencies in its food system, Most notably, Food From Wales: Food For Wales xxxv was an overarching document published in 2010. It was never fully implemented and placed in the background by successive Ministers in favour of a more specific Action Plan that focused on Wales’ food industry sector and set up the Food Industry Board. This has been successful in increasing gross value added and employment through the food manufacturing system, but it would be unfair to view it as a comprehensive and holistic approach, or indeed the food system strategy for Wales earlier envisaged by Food From Wales: Food For Wales. The Assembly Committees and the Public Policy Institute for Wales 2016 Food Policy: Public Policy report xxxvii both highlight the need for a more integrated and holistic approach to food policy. Again, these have not been adopted and Ministers have responded to these calls by signalling the primacy of the ‘Towards Sustainable Growth – an Action Plan for the Food and Drink industry 2014–2020’ xxxviii referred to as the Food Action Plan; and its current reviews with the ‘Developing Wales: Food and drink sector’ consultations) as the main food policy vehicle (see Minister’s August 2018 response to Environment Assembly Committee on their report on Food Procurement) xxxix
Wales’ natural resources are managed sustainably with healthy ecosystems underpinning food production. Wales’ food and farming sectors are a significant contributor to addressing the climate emergency and Wales’ net zero climate change target. Public procurement offers the opportunity to shorten supply chains, set public value criteria around environmental and welfare standards in food production, and stimulate demand for healthier and more sustainable Welsh food to be procured/supplied to the public sector and Welsh households. This creates opportunities for thriving local economies which are supported through various training routes to ensure that Welsh food system actors are able to rise to the challenge and seize business opportunities that support regional economies. The real living wage underpins the Welsh supply chain.

A Resilient Wales.

Wales’ agroecological farming systems help to restore resilience within production systems by introducing diversity, circularity and complexity and eliminating the use of non-renewable and energy-intensive inputs. Wales’ food system uses a combination of agri-environment payments and demand-side drivers for healthy and sustainable foods. Going beyond payments for environmental services currently recognized in ‘Sustainable Farming and Our Land’, payments would also be for actions that support the achievement of NRW’s DEGGA approach to improving ecosystem resilience. Agri-environment payments would recognize contributions to well-being and education goals which improve the social resilience of the system by building relationships back into the food system.

A Healthier Wales.

Everyone eats more fruit and veg and less ultra-processed food. Health strategies are integrated into a food system strategy for Wales to ensure that everyone has access to healthy, affordable food, and that everyone can learn about food, how to grow it, and to prepare nutritious meals. Positive norms to healthy foods are built into the education system that draw upon and bring together the wealth of knowledge of farmers and business owners through new entrants and business advice. Connecting with the ‘Healthy Weight Healthy Wales’ obesity strategy, school food standards reflect healthy eating principles and sustainable food production capability in Wales is stimulated to ensure Welsh food is supplied by Welsh producers to children in Wales giving environmental, health, economic and social benefits.

A Prosperous Wales.

Wales’ natural resources are managed sustainably with healthy ecosystems underpinning food production. Wales’ food and farming sectors are a significant contributor to addressing the climate emergency and Wales’ net zero climate change target. Public procurement offers the opportunity to shorten supply chains, set public value criteria around environmental and welfare standards in food production, and stimulate demand for healthier and more sustainable Welsh food to be procured/supplied to the public sector and Welsh households. This creates opportunities for thriving local economies which are supported through various training routes to ensure that Welsh food system actors are able to rise to the challenge and seize business opportunities that support regional economies. The real living wage underpins the Welsh supply chain.

A More Equal Wales.

A food system strategy for Wales supports a framework that ensures everyone has access to healthy, affordable food. Co-productive approaches shape food provision in Wales. The development of food citizens is encouraged, where people actively engage in their community food systems to drive culturally appropriate regional and national food systems. Culturally appropriate practices and food vary across regions and even within cities, which further points to the need for a co-productive approach addressed through citizen assemblies and other forms of citizen engagement.

A Wales of Cohesive Communities.

The food and farming sectors support rural communities to thrive, ensuring livelihoods for farming communities that deliver ecological and social well-being goals. Food is used as a ‘convener’ to bring people together and sustainable food provision becomes a key element in community regeneration strategies in both urban and rural communities. Civil society organisations, food hubs and cooperative bodies are encouraged and supported to promote local food initiatives as part of community development initiatives. Support is directed towards setting up regional training centres for sustainable food production that draw upon and bring together the wealth of knowledge of farmers and business owners through collaboration.

A Wales of Vibrant Culture & Welsh Language.

Food is used to celebrate our heritage and Welsh language. People come to Wales to experience our food, drink and hospitality. Welsh cuisine and food culture is encouraged in the food service and hospitality sectors. Food initiatives are inserted as part of Welsh language training and school curricula. Food is recognised as a fundamental part of the ‘Foundational Economy’, enabling local communities to regenerate and become more socially and culturally vibrant.

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A Healthier Wales.

Everyone eats more fruit and veg and less ultra-processed food. Health strategies are integrated into a food system strategy for Wales to ensure that everyone has access to healthy, affordable food, and that everyone can learn about food, how to grow it, and to prepare nutritious meals. Positive norms to healthy foods are built into the education system that draw upon and bring together the wealth of knowledge of farmers and business owners through new entrants and business advice. Connecting with the ‘Healthy Weight Healthy Wales’ obesity strategy, school food standards reflect healthy eating principles and sustainable food production capability in Wales is stimulated to ensure Welsh food is supplied by Welsh producers to children in Wales giving environmental, health, economic and social benefits.
The process of developing a food system strategy for Wales needs to focus upon three clearly identified policy spheres: (i) Co-creating a new and demanding collective and transformative vision for Welsh food that has the capacity to meet today’s urgent needs outlined above; (ii) concerted actions in building infrastructure that supports integrated policy approaches; and (iii) enacting a range of interrelated delivery mechanisms at multiple spatial and organisational scales. Given these new and demanding challenges, a new vision for Welsh food is needed; and this once agreed, needs to be owned and embedded in a comprehensive food infrastructure plan which tackles and progresses all seven principles of the Act and involves investments and interventions in social, economic and environmental infrastructures. This will require a whole-government approach and as part of this, changes in governance structures as well as we have recently advocated in a series of briefing papers and is supported by influential reports like the recent Royal Society of Arts (RSA) 2019 report. The RSA report advocates actions to be taken within our food system over the next ten years to recover and regenerate nature, and to restore health and well-being to both people and planet. Brexit can also be seen as an opportunity to recast food governance. We advocate establishing a new Wales Food Commission to oversee and lead action on food and to bring together existing siloed policy areas under one umbrella. In addition to a Wales Food Commission, a national framework for food system strategy for Wales and to bring together existing siloed policy areas under one governance framework. The Commission would have a broader remit than the Food and Drink Wales Industry Board which covers the industry part of the food sector and is focused on Welsh businesses and national scales. A food system strategy for Wales will also set up a wider range of delivery mechanisms beyond those currently set out in the Food Action Plan.

4.2 A Transformational Vision

It is instructive to revisit the collective vision proposed in the Food for Wales: Food from Wales (2010-2020) policy.45 Many of the objectives set out in that strategy document remain relevant and even more important given the delays in adequately addressing them in the interim; for example, improved reputation and value, higher food quality, increased diversity and marketing, a shared goal among all main stakeholders; more integration; and consumer trends, and identifying domestic market opportunities for Welsh food. The National Universal Food Framework would ensure universal access to a healthy diet. A National Universal Food Framework would engage with food producers, food hubs, schools, local authorities and the NHS to connect people to the sources of food, to nature and to each other. Building relationships back into the food system can foster positive mental and physical health outcomes46 and promote the following ways of working of the Act: prevention, collaboration and involvement. A National Universal Food Framework can create the mechanisms to empower communities to engage with their food system so as to design and build bottom-up participation and with facilitated support, community-based universal food programmes that utilize a capabilities approach and meet the urgent needs of each community.47

In the case of food produced locally, school children and community members could be connected with local farms and community gardens, where they would spend time with other individuals, on activities on the farm garden to grow food. It could also incorporate community kitchens, which would be stocked with basic store cupboard goods, where people could go to cook food in a social and supportive environment. This would draw on the scheme supported by the Soil Association in the Food for Life programs48 to award funding to groups for multigenerational social activities on a national scale. This could be supported by the National Universal Food Framework and benefit from existing programmes at community, regional and national scales. A National Universal Food Framework could coordinate and use social and ecological assets to provide individual and group spending time on food-based activities. To ensure synergy across the system: achieving synergy across the system: achieving synergy across the system:

1 We acknowledge that there is also now an Implementation Board for the Healthy Weight Healthy Wales Obesity Strategy and also of Food Standards Agency Welsh Advisory committee.
Building local supply of healthy, sustainable and accessible food:

(i) Agroecological farming: Given the climate and biodiversity crises, Wales’ agricultural sector has to develop its ecological foundation. We recommend that Wales makes a transformation to an agroecological farming region by 2030. Agroecology applies ecological concepts and principles to food production practices, managing interactions between plants, animals, humans and the environment for food security and nutrition. Agroecology integrates circular and regenerative approaches to the natural resources in the system, maintaining and recognizing nutrients in the system. They rely on the diversity of biological organisms, from the plants grown and harvested to the insects both in the ground and above ground that facilitate an environment conducive to growing crops. Agroecological approaches focus on soil health and preservation and natural input (sun radiation, air, water and nutrients) optimisation. The diversity of practices within an agroecological system creates a robust and resilient system that is less vulnerable to international market dynamics of input synthetics fertilizers, pesticides and seeds; price and availability. The use of synthetic fertilizers not only contributes to climate change, but they disrupt the natural balances in soil biotic communities, reducing natural fertility functions. Pesticides further disrupt the natural balances in soil biotic communities, reducing natural biodiversity as well as the production of nutritious food. Agroecological farming: A resilient Wales

Farming practices can be used to ensure increased biodiversity as well as the production of nutritious food. Slade Farm uses cyclical nutrition and fertility building within the farm to provide a definitively sustainable system within its external inputs. The system is supported via management practices such as areas of permanent pasture, spring sown cereals, and hay meadow maintenance. Taken together these practices ensure the maintenance and growth of biodiversity above and below ground.

A more cohesive Wales

Using farms as a ‘place’ provides the opportunity to engage communities in food production and nature. Slade Farm has regular public events to showcase food production and serves as a small Community Supported Agriculture scheme. This brings the local community together and creates both bonding and bridging social capital as well as reconnecting people to the land.

A healthier Wales

An overwhelming driver of poor outcomes in health and nutrition is the level of processed foods consumed. Slade Farm connects people to primary products through local supply of meat and vegetables. This creates the micro opportunities within households to make different choices. The shape of our food system influences our behavioural patterns; changing its shape can have positive consequences for health and nutrition.

Wales has an opportunity to enhance the benefits of regenerative agriculture within its food system. It is clear that when such practices are in place they provide enormous public and common goods that contribute directly to a better Wales. We recommend that Wales makes a transformation to an agroecological farming region by 2030.

(ii) Agroecological farming skills: Supporting agroecological approaches to food production requires a more connected and comprehensive training and skills landscape for sustainable food production and the wider food system that links food and farming organisations, urban and rural production and the network of further and higher educational institutions. The ‘StableMarm’ and ‘Our Land’ consultation, the ‘Developing Wales’ food and drink sector consultation and the ‘Healthy Weight Healthy Wales’ strategy all incorporate support and action points to address the skills gap at various points in the food system. An overall vision could also incorporate school curriculum in supporting these objectives. Food policy in Wales has already taken innovative steps to support networking and connecting actors in the food system by establishing themed clusters to support skills development within the food sector. Continued support can be directed at setting up regional training centres for sustainable food production that draws upon and brings together the wealth of knowledge of farmers and small owners through collaboration. These centres could support new co-operatives and co-operative ways of working as well as enabling accreditation and/or financial support for farmers wanting to deliver training and training programmes. Case study: Illustrates ways in which informal traineeships already occur and could be increased in numbers with financial incentives.

(iii) Agroecological farming skills: Supporting agroecological approaches to food production requires a more connected and comprehensive training and skills landscape for sustainable food production and the wider food system that links food and farming organisations, urban and rural production and the network of further and higher educational institutions. The ‘StableMarm’ and ‘Our Land’ consultation, the ‘Developing Wales’ food and drink sector consultation and the ‘Healthy Weight Healthy Wales’ strategy all incorporate support and action points to address the skills gap at various points in the food system. An overall vision could also incorporate school curriculum in supporting these objectives. Food policy in Wales has already taken innovative steps to support networking and connecting actors in the food system by establishing themed clusters to support skills development within the food sector. Continued support can be directed at setting up regional training centres for sustainable food production that draws upon and brings together the wealth of knowledge of farmers and small owners through collaboration. These centres could support new co-operatives and co-operative ways of working as well as enabling accreditation and/or financial support for farmers wanting to deliver training and training programmes. Case study: Illustrates ways in which informal traineeships already occur and could be increased in numbers with financial incentives.

Further training can be achieved by creating centres for training and R&D extending and developing the existing food technology centres networks so as to meet the Welsh Government Food Action Plan target of attracting 6000 new entrants into food manufacturing by 2025. This number needs to increase when we consider the food hospitality sector, farming and especially horticulture, and product marketing. The centres would be demonstration hubs of best practice.

Horticulture promotion:

Scale out small-scale horticultural production in Wales through widening access to land and training of new entrants and business advice, especially for producers in the most economically disadvantaged areas. Horticulture in Wales has been in long-term decline with fewer than 3000 hectares now under cultivation for potatoes, field vegetables, small fruit and commercial orchards, compared with double that amount forty years ago. Innovative schemes that are targeted at growing the market opportunities for these products, most easily through procurement policies, coupled with greater knowledge exchange, could help to incentivise more widespread production in Wales. We recommend for Wales to extend the amount of horticultural land required to meet the nutritional recommendations of five servings a day. 2% of Welsh land area would be required for production. Aiming for 2% of land area to be dedicated to horticultural production could form a policy tool within both health and land management strategies in Welsh Government.

According to research into the barriers to increasing horticultural production in Wales. Perceived barriers were the challenge of securing the capital, the risk of losses due to climate and weather. The scale out small-scale horticultural production in Wales. Perceived barriers were the challenge of securing the capital, the risk of losses due to climate and weather. The scale out small-scale horticultural production in Wales. Perceived barriers were the challenge of securing the capital, the risk of losses due to climate and weather. The scale out small-scale horticultural production in Wales. Perceived barriers were the challenge of securing the capital, the risk of losses due to climate and weather. The scale out small-scale horticultural production in Wales. Perceived barriers were the challenge of securing the capital, the risk of losses due to climate and weather. The scale out small-scale horticultural production in Wales. 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The scale out small-scale horticultural production in Wales. Perceived barriers were the challenge of securing the capital, the risk of losses due to climate and weather.
Building the local market for healthy, sustainable and accessible food:

(iv) Local food procurement: Wales local and regional public procurement of foods is a key aspect of Public Service Board well-being plans. Link this up to a network of sustainable food hubs, and regularly monitor this through the Public Service Boards. As an example and as stated above, one of the barriers to increasing horticulture production is the need to stimulate demand for fruit and vegetables grown. Procurement has the power to create the demand for greater horticulture and arable crop production in Wales for Welsh consumption. The increase in demand can support policies to encourage producers to transition towards agroecological production practices and more diverse production systems. The Carmarthenshire pilot, Foundational Economy project in Machynlleth and Newtown area, is exploring local food procurement towards a 2030 Vision for a Welsh Wales.

(v) Sustainable food hubs: Invest in developing a network of sustainable food hubs (businesses that aggregate and distribute local food) in rural Wales and link farming support to making transitions and convergence to agroecological practices. According to a 2018 survey of UK food hubs, they often cooperate within an explicit ethical framework and fill gaps in local food infrastructure. Help consumers find locally sourced produce, support new forms of food retail, include food enterprises, and/or create a space for community education and action. Food hubs have been estimated to have a gross output multiplier of 1.75 and an employment multiplier of 2.14. An integrated policy environment within Wales needs to recognise the vital link between sustainable and just food, horticultural, and the health and well-being of future generations. This requires a Wales-wide action plan that catalyses local food economies through development of co-operative food hubs and community food centres. Co-operative food hubs can support producers through co-operative processing and distribution enabling resources and access to Wales-wide retail and procurement outlets. Community food centres can be spaces for diverse communities in Wales to come together to access healthy, local and affordable fresh produce, foster vibrant food cultures, educate about co-operative values and principles and catalyse local food innovation and enterprises. Together co-operative food hubs and community food centres can cultivate co-operative Welsh economies and empower communities to achieve sustainable and just food futures.

(vi) Food cooperatives: Further long-term investments in setting up food cooperatives at all levels and scales, so as to increase the density of coops across Wales. Link cooperatives to the development of food hubs, which stand to play an important role within the National Universal Food Framework with respect to design of community-based universal food programmes.

(vii) Digital markets: Embrace and develop digital food markets and supply chains, linking consumers with producers and food hubs as part of the development of the foundations/circular economy in Wales. Such digital tools already exist, for example in the Open Food Network (OFN). The Open Food Network is a platform co-operative selling models that will enable more locally grown food to be sold. The project will meet its aims by running a five-step programme:

1. EVENTS: to promote local food and engage more people in growing and eating it.
2. VOLUNTEERING: offering volunteer opportunities to people interested in gaining experience in sustainable food production.
3. MICROFARMS: developing new microfarm sites on which new entrants to horticultural food production can test their ideas and gain experience.
4. VOCATIONAL TRAINING: developing a new accredited training programme in sustainable horticultural food production.
5. NEW MARKETSS: creating new markets for locally produced food, including food hubs and new cooperative selling models.

The project has developed interesting partnerships. In Machynlleth the Centre for Alternative Technology has offered land, project support and shared vision, while in Newtown the project has partnered with the community growing organisation Cultivate to share their community garden and their vision for a more resilient food system.

Case Study 4: Pathways to Farming

Pathways to Farming is a Mach Maesteg project working on increasing the number of horticultural food producers in North Powys and creating new markets for local produce. The project is working with 12 trainees in the Machynlleth and Newtown area, teaching them the horticultural skills needed for commercial food production and mentoring them to grow on small scale ‘microfarm’ plots. The idea is that these trainees will move on to scale up in the future using the business plans they are writing as part of their training.

The project is working to develop new markets and new selling models that will enable more locally grown food to be sold. The project will meet its aims by running a five-step programme:

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2. VOLUNTEERING: offering volunteer opportunities to people interested in gaining experience in sustainable food production.
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4. VOCATIONAL TRAINING: developing a new accredited training programme in sustainable horticultural food production.
5. NEW MARKETSS: creating new markets for locally produced food, including food hubs and new cooperative selling models.

The project has developed exciting partnerships. In Machynlleth the Centre for Alternative Technology has offered land, project support and shared vision, while in Newtown the project has partnered with the community growing organisation Cultivate to share their community garden and their vision for a more resilient food system.
Welsh Government departments and the need to distinguish equality, food standards across the UK as well as within Wales. These standards should include sustainability criteria in addition to point of origin and build on the work that Welsh Government has already achieved through the Good Taste Awards, for example.

Promoting Welsh Food in a British Isles context: Reformulate the context of Brexit, a proactive export strategy most central in the UK link and this explicitly to the Welsh Tourism Board, and the development of Welsh cuisine in the UK market. Major confusions currently exist regarding the future of designated protected area brands in Wales and the rest of the UK as part of Brexit trade negotiations in 2020. There will also be a growing need to export nutritious food across the UK with particular attention to making it accessible to low-income households. There is considerable potential market for nutritional and agroecological food grown in the UK.

This vision should be delivered through targeted and redirected funding chains that link consumers with producers and food hubs. Increasing to make plans for developing food hubs, which could facilitate local and aggregate and distribute local food. Local authorities should be required for food markets, community retailers and food processors, investment in chains. To support local supply chains and rebalance the distribution of these transformations will require changing the shape of our food provision.

4.4 Delivery Mechanisms

To realise the new food vision for Wales and build the necessary food infrastructure, an integrated set of policies and funding mechanisms need to be developed. Public Sector Bodies, Welsh Government, QR codes, and wellbeing assessments, natural resources, Wales’s area statements and the school curriculum should be key vehicles to deliver sustainable food production and consumption.

Any post Brexit agricultural and land management policy needs to support farmers to make the necessary transformations towards sustainable land management. Welsh Government’s ‘Sustainable Farming and our Land’ consultation will predominantly reward farmers and land managers for delivering environmental public goods, such as biodiversity, carbon sequestration, water and air quality. However in addition to this, any post Brexit agricultural and land management policy needs to support farmers to make the necessary transformations towards sustainable land management. Enabling changes to agricultural practices needs to be a central part of Wales’ post Brexit agricultural and land management support mechanisms, and these need to be of higher back-up to its overall aims and goals of the wellbeing of future generations. An example of this transition also known as the ‘Less is More’ approach is shown in case study 6.

4.3 Infrastructures: re-building sustainable food provision

These transformations will require changing the shape of our food infrastructures to address physical economic and governance variables. In many ways, food infrastructures need re-building. Many scholars have talked about the prevailing missing middle in sustainable food supply chains. To support local supply chains and redistribution the distribution of power, infrastructure is needed in towns and the countryside to link food producers to consumers in more diverse ways. This means more sites for food markets, community retailers and food processors; investment in local agro-forestry in upland farming systems. An example of this transition, shows that positive economic and income benefits can be considerable for farmers who make these transitions towards lower stocking levels, a stronger reliance upon pasture-based grazing, elimination of artificial feeds and fertilizers, and higher levels of farm diversification and agri-forestry in upland farming systems. An example of this transition also known as the ‘Less is More’ approach is shown in case study 6.

A new Wales Food Commission should be established to oversee the development of Wales Food strategy, comprising the Future Generations Commissioner, Area Statement leads, education and public health boards, Welsh Government leads on food policy (including agriculture, procurement, health and social care) and food practitioners (including community based organisations and environmental NGOs). We also recommend, as highlighted above, creating a National Universal Food Framework to ensure all Welsh people have the right to access healthy food.

5. Conclusions: Policies for transformation

This paper advocates many things as we see a radical set of proposals for reconceptualising and reaggregating food policy in ways which stimulate a new food system transformation in Wales, which will need to extend and to relate to the post Brexit. Unlike 2010 when Food from Wales—Food for Wales was prepared, a decade of financial austerity, the recognition of systemic dysfunctions in food diets and food poverty, rising awareness of both the climate and nature crisis, and the food system vacuum created by Brexit, now means that national governments and wider public authorities need to take more urgent concerted and coordinated action to stem the nature of this humanitarian crisis. This is a crisis which transcends global international and national sustainable development goals and particularly affects the young and vulnerable.

Fortunately, Wales holds its own independent statutory Wellbeing of Future Generations Act framework and importantly the five ways of working in partnership and collaboration with others which should be statutory require government bodies to centrally address this urgent agenda. Developing a food system strategy for Wales as public policy thus needs to be centrally aligned to the Act. This is far more, as this paper argues, that there is no lack of potential strategic opportunities posed by the UK-wide need to develop a new governance framework for food, not least in the area of food standards and trade post Brexit, these actions and strategies are all the more urgent for Wales.

We know people and their communities care about food, we also know that people are increasingly demanding actions on the part of governments to act to create safe and nutritious ways of feeding the population. Food production and indeed regenerative communities, and as we know is part of the Foundational Economy, Government needs to lead and empower these community and cooperative actions not least through progressing a national food system transformation.
Experts agree that there needs to be “a radical rethink of business models, food systems, civil society involvement, and national and international governance” to address the intertwined crises of obesity, loss of biodiversity, climate change, and land and ecosystem degradation and biodiversity loss. (Endnotes)

iv. The Food Foundation, Affordability of the UK’s Eatwell Guide, September 2018

vi. Natural Resources Wales, The State of Natural Resources report, 2016


xi. WWF, Risky Business, October 2017


xxv. Welsh Government, Developing Wales’ food and drink sector, accessed January 2020

xxvii. Welsh Government, Sustainable Farming and our Land, accessed January 2020


xxxii. National Assembly for Wales, Rethinking Food in Wales Public Procurement of Food, May 2018

xxxiii. Food for Wales, Food from Wales 2010-2020, December 2010

xxxiv. Public Policy Institute for Wales, Food Policies in Public Policy, June 2016


xxxvi. Written responses by the Welsh Government to the report of the Climate Change, Environment and Rural Affairs Committee entitled Emissions: Food in Wales Public Procurement of Food, 24 August 2018


xliii. The UN Special Rapporteur on the Right to Food is an independent expert appointed by the UN to examine, monitor, advise and publicly report on realization of the right to food – see http://www.srfood.org, accessed January 2020


lxv. Business Wales, Foundational Economy, accessed February 2020


lxiv. Food for Wales, Food from Wales 2010-2020, December 2010

lxv. This case study was originally produced in the Working co-operatively for sustainable and just food systems in Wales report

lxvi. Royal Society of Arts, Our Future in the Land, July 2019

lxvii. Public Policy Institute for Wales, Food Policies in Public Policy, June 2016 (see page 28)

lxviii. The International Covenant on Economic, Social and Cultural Rights (ICESCR) is an international treaty which aims to ensure the protection of economic, social and cultural rights, such as the rights to work, social security, health and education. Article 11(1) of the Covenant recognizes the right of everyone to an adequate standard of living including adequate food clothing and housing, and to the continuous improvement of living conditions. Article 11(3) guarantees that it “is fundamental right of everyone to be free from hunger, and obliges State Parties (ie those countries that have ratified the Covenant, hereafter referred to as ‘states’) to take steps in this regard including the improvement of methods of distribution of food and dissemination of knowledge concerning the principles of nutrition.”

lxix. The UN Special Rapporteur on the Right to Food is an independent expert appointed by the UN to examine, monitor, advise and publicly report on realization of the right to food – see http://www.srfood.org, accessed January 2020


xxii. NatCen Social Research, Food Security in Wales, March 2018 (See pg 2)

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