

Plant-based policies: healing the cracks in our food system

There are deep cracks in our food system. It has great potential in ending the climate emergency but at present comes at a high environmental cost. It generates an unequitable distribution of resources. It does not enable healthy diets. And it is reliant on ever-growing numbers of livestock.

Our policy team works to improve the food system for all. In this document, we analyse a number of policies which can begin to heal the cracks in our food system. We make policy recommendations in three key areas: support for farmers, public sector provision, and access to healthy food. This document has a wider scope than the summary document which picks out just three policies.

Area 1: Farm payments

Government must hand farmers the tools to protect the planet. This involves properly aligning the financial support system for farmers with environmental and other benefits. There are two key policies needed to do this.

Package of support

First, government should offer a package of support for farmers who are interested in moving out of livestock farming towards pulse production or reforestation. The package of support should be designed in consultation with farmers, and should include start-up capital costs.

Pulses are a much more sustainable source of protein than animal products. Rising livestock numbers have contributed to the climate emergency, resource inefficiency, anti-microbial resistance, and animal protection issues. The United Nations found that livestock globally account for as many greenhouse gas emissions as all the direct emissions of all transport sectors combined. Industrial livestock farming generates a large amount of food waste and considerable animal protection issues. Food waste occurs as most livestock in the UK rely on feed, such as soya. On average only 12 percent of the calories of this feed is retained, as the majority is used by the animals for movement, respiration, etc.¹ Urgent action is required on anti-microbial resistance but this is not likely possible with such high livestock numbers. And this intensification, all too common in the UK but often overlooked, makes good animal welfare all but impossible.

Pulse crops, by contrast, represent one of the most environmentally friendly ways of producing food. They fix nitrogen, reducing their reliance on fertiliser and improving soil health by generating fertility. They provide healthy, accessible food, as they contain plant protein, fibre, iron, and potassium.² They are low in fat and sodium, contain no cholesterol, and have a low GI index.³ They have very low spoilage rates and can be easily stored for long periods, lowering food waste.⁴ They are also at the heart of new and popular plant-based products.

The package of support should also be on offer for farmers interested in reforestation of their land. Our uplands provide a real opportunity here; a national reforestation programme could lock up 9 years'

¹ Cassidy, E. S., West, P.C., Gerber, J.S. & Foley, J.A (2013). Redefining agricultural yields: from tonnes to people nourished per hectare. *Environmental Research Letters*, 8: 034015. Available at: <http://iopscience.iop.org/article/10.1088/1748-9326/8/3/034015/pdf>

² Marcela Villarreal of the Food and Agriculture Organization of the United Nations, talk at the Grow Green conference, 11th April 2019, British Library, London.

³ *ibid*

⁴ *ibid*

worth of UK emissions, as recent Harvard research found.⁵ Climate Finance money could be diverted to fund this natural climate solution.

Annual payments

Second, as well as an initial package of support, annual support payments for farmers should be properly aligned with the degree of public benefits provided. The EU's CAP largely distributes payments based on the amount of land owned by a farmer. The government has announced a "public money for public goods" approach to replace this, but it does not intend to make payments proportional to the public benefits provided, whether that is climate change mitigation, public health benefits, or animal protection.

Plant-based, arable production is far more sustainable than livestock farming, and the financial support system should reflect this. Arable production uses less land⁶ and water⁷ per calorie, and also generates lower emissions on average, compared to livestock farming. There are two fundamental reasons for this. Many livestock release large quantities of methane, a powerful greenhouse gas. And livestock farming usually involves feeding crops to animals which represents a large loss of calories and protein, as only 12 percent of the calories are retained in animal products.⁸

Overall, these policies will help British farming shift gear. They will help overcome the economic barriers which stand in the way of sustainable production.

Area 2: Public sector provision

Public sector provision can help link production to consumption. The food that our schools and hospitals serve should be of good quality and should showcase a nutritious, sustainable approach to food.

Plant-based food has the potential to boost sustainability and public health. And patterns of eating are already changing in this direction. Reports suggest that one in three people in the UK has stopped or are reducing their meat consumption⁹, and one in three is regularly buying plant-based milks.¹⁰

Fair access

Those who do have a commitment to a vegan lifestyle can expect fair treatment and to be provided with suitable food by public sector institutions. One reason for this is that

⁵ Harwatt, Helen and Matthew Hayek, 2019. 'Eating away at climate change with negative emissions: Repurposing UK agricultural land to meet climate goals'. Available at: <https://animal.law.harvard.edu/publications/eating-away-at-climate-change-with-negative-emissions-harwatt-hayek/>

⁶ Hallström, E., Carlsson-Kanyama, A & Börjesson, P. (2015) 'Environmental impact of dietary change: a systematic review' Journal of Cleaner Production, 91, pp.1-11. Available at: <http://www.sciencedirect.com/science/article/pii/S0959652614012931>

⁷ FAO (2006) Livestock's long shadow: environmental issues and options. Rome: Food and Agriculture Organization of the United Nations. Available at: <http://www.fao.org/docrep/010/a0701e/a0701e00.HTM>

⁸ Cassidy et al 2013

⁹ <https://www.theguardian.com/business/2018/nov/01/third-of-britons-have-stopped-or-reduced-meat-eating-vegan-vegetarian-report>

¹⁰ http://costsectorcatering.co.uk/sites/default/files/attachment/pages_plant-based_profits_alpro_and_bb_foodservice_insight.final_pages.pdf

veganism has been found to come under the scope of the Equality Act 2010 as a protected non-religious philosophical belief.¹¹

However, in practice this provision does not eventuate. The Vegan Society is regularly contacted by people in vulnerable situations, who are reliant on others to cook for them but struggle to access food in line with their ethical commitment to veganism. For instance, vegan children at school or patients in hospital often face difficult circumstances.

Solution

To address this growing problem in the public sector, a simple solution is to legislate to guarantee a plant-based meal option on every public sector canteen menu. In practice, this would mean that plant-based meals are available to everyone on standard menus, without anyone having to make a special request. This will ensure that everyone, including the most vulnerable in our society (children, hospital patients and prisoners) will be able to access nutritious, sustainable food when using public services.

Wider benefits

This policy would also secure wider benefits for people more generally. We believe that all citizens should not just have a right to food, but also a right to nutritious and sustainable food. Better provision of plant-based food can play a large role in making this happen.

This is in part because of the health benefits associated with increased consumption of plant-based foods. Plant-based diets typically contain plenty of fruit and vegetables, meaning less saturated fat and plenty of dietary fibre. The British Dietetic Association¹² and the NHS¹³ recognise that totally plant-based food is suitable for every age and life stage. Additionally, research has linked vegan diets with lower blood pressure¹⁴ and cholesterol¹⁵, as well as lower rates of heart disease, type 2 diabetes¹⁶ and some types of cancer.¹⁷ Building familiarity with plant-based food in public sector settings could help address some of the many diet-related public health crises affecting the UK and putting strain on the NHS.

And environmentally, plant-based diets are the best off-the-shelf diets in terms of greenhouse gas emissions, land use, water use, eutrophication and soil erosion. This was confirmed by researchers at Oxford University, who, last year, concluded that eating a vegan diet could be the “single biggest way” to reduce an individual’s environmental impact on the planet.¹⁸ The United Nations has also urged a global move towards a meat and dairy free diet for the benefit of our planet.¹⁹ Individually, one can reduce their food-related greenhouse gas emissions by 50% by switching to a vegan diet.²⁰ Increasing demand for plant-based food should help to encourage production to shift, cutting greenhouse gas emissions from UK agriculture.

Food has a social role to play, and providing plant-based food can boost inclusivity, as it can be enjoyed by almost everyone, including those looking to reduce their animal product

¹¹ <https://www.thelawyer.com/vegan-rights-uk/>

¹² <https://www.bda.uk.com/news/view?id=179>

¹³ <https://www.nhs.uk/live-well/eat-well/the-vegan-diet/>

¹⁴ <https://www.ncbi.nlm.nih.gov/pubmed/12372158>

¹⁵ <https://www.nature.com/articles/ejcn2013248>

¹⁶ <https://www.diabetes.org.uk/guide-to-diabetes/enjoy-food/eating-with-diabetes/veganism-and-diabetes>

¹⁷ <https://www.wcrf-uk.org/uk/media-centre/press-releases/new-research-shows-vegan-diets-could-lower-prostate-cancer-risk>

¹⁸ <https://science.sciencemag.org/content/360/6392/987>

¹⁹ http://www.unep.fr/shared/publications/pdf/DTIx1262xPA-PriorityProductsAndMaterials_Report.pdf

²⁰ https://link.springer.com/article/10.1007%2Fs10584-014-1169-1?utm_medium=affiliate&utm_source=commission_junction&utm_campaign=3_nsn6445_brand_PID4003003&utm_content=de_textlink

consumption for their health or their environmental commitments, vegetarians, and vegans. It is also straightforward to make plant-based dishes suitable for people with religious dietary requirements, including people who follow the Islamic, Jewish, Sikh or Hindu faiths. Offering more plant-based food in the public sector is a great way to ensure that no-one is left out and that everyone is catered for. Institutions can save money by drawing on the inclusive nature of plant-based food.

Finally, guaranteeing the availability of plant-based food will increase many people's knowledge and skills in relation to nutritious and sustainable food. There are many misconceptions around plant-based food, for example, that it is plain and not tasty, that it doesn't provide enough nutrition and that it is expensive and difficult to prepare. By offering delicious, nutritious, simple and affordable plant-based food these can be shown not to be true. This can remove some of the barriers that stop people from preparing and eating nutritious and sustainable food at home.

Broad support

The policy has received the backing of important institutions and individuals. The recent Committee on Climate Change report states that 'the public sector should take a strong lead by offering more plant-based food'.²¹ And the suggestion of guaranteeing a plant-based meal on public sector menus has publicly received the backing of around a dozen Labour parliamentarians.²² The public sector can set a great example of best practice when it comes to offering sustainable, nutritious food to the public, hopefully providing a catalyst for personal behaviour change along the way.

Legislation which guarantees access to plant-based meals in the public sector has already been in place in Portugal²³ since 2017. California is in the process of introducing similar laws.²⁴ It seems likely that more and more nations and states will adopt the idea, which is a cost-effective way of securing so many benefits. The UK has the opportunity to lead the way, meaningfully tackling climate change and diet-related public health crises, whilst also protecting the legal rights of an ever-growing number of vegans.

Area 3: The right to healthy and sustainable food

In the UK, poor diet has an estimated cost of £6 billion a year²⁵ on NHS budgets due to preventable ill-health. Evidence indicates that this can be addressed through the promotion of healthier, plant-based foods. Despite this, healthy food remains inaccessible for many, particularly those on low incomes.

It is therefore crucial to address the social and economic inequalities that have been identified as determinants for poor consumption behaviours, and to acknowledge that poor diets are predominantly a result of the fact that many are simply unable to afford nutritious and sustainable food. Whilst healthy food as a guaranteed universal right should be aspired towards, we must address existing health and social inequalities in order to make this possible.

²¹ P. 186 Net Zero Technical Report

²² See, e.g., <https://www.vegansociety.com/take-action/campaigns/catering-everyone/legislation/whos-backing-it>

²³ <https://metro.co.uk/2017/03/10/it-is-now-illegal-not-to-offer-vegan-food-at-prisons-hospitals-and-schools-in-portugal-6501872/>

²⁴ http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB1138

²⁵ <https://www.gov.uk/government/publications/health-matters-obesity-and-the-food-environment/health-matters-obesity-and-the-food-environment--2>

Subsidy

There are economic barriers which hamper people's consumption choices. Fast-food outlets tend to be located disproportionately in low-income areas.²⁶ By contrast, fruit and vegetables can often be expensive. This adversely affects the ability of residents in poorer communities to be able to access affordable, healthy food. Moreover, residents are likely to have less money to spend on cooking facilities, pushes them towards convenience foods that are cheaper (and unhealthy), or else towards consuming less food altogether. A fruit and vegetable subsidy of just 10% would enable citizens to make healthier choices, and would be a long-term investment into treating health inequalities²⁷ by encouraging people to try things they would otherwise not have purchased because of their price.

Education

Promoting a healthy diet within the education system would also supplement this. For instance, implementing a free scheme offering local fruit and veg in schools, as well as compulsory cooking classes, would address considerable barriers to healthy food habits.²⁸ Promoting healthy habits at an early age makes it more likely that they will persist into adulthood.²⁹ Such community-based practices as these have already been noted as being beneficial as a 'holistic' approach to addressing practical needs.³⁰

Geography

The factors which affect access to healthy food are varied and many. They include poorer quality housing, which limits the ability to safely store and prepare healthy foods.³¹ In addressing such barriers, it would also be beneficial to implement a legal duty on local authorities to address the geographical barriers to accessing nutritious foods. These often affect those living with a disability, on a low income, or in old age.

National legal framework

In order to ensure that the right to food is upheld by the state, it is also imperative to create a national framework law which protects and realises every element that consists of this. The International Covenant on Economic, Social and Cultural Rights, a UN human rights treaty, has already outlined key elements to the right to food:³² adequacy; sustainability (food that should be accessible for present and future generations); availability (quality and quantity that is sufficient to satisfy dietary needs of individuals – mix of nutrients, etc) and access (affordable without having to compromise other basic needs, such as heating). Access to plant-based food products meets these criteria. Enhancing the status of ICESCR in domestic law would therefore ensure that this right is upheld. This also asserts that a Universal Basic Income which reaches everyone, should underpin these individual policies. This would address the social and economic determinants of poor dietary choices, and improve food security.

In order to tackle wider societal concerns, we must acknowledge that structural reform is required in our welfare and food production systems and ensure that we aspire towards a universal right to food.

²⁶ BMA Diet-Related Illness 2016

²⁷ <https://onlinelibrary.wiley.com/doi/full/10.1111/boer.12085>

²⁸ <http://researchbriefings.files.parliament.uk/documents/POST-PN-0522/POST-PN-0522.pdf>

²⁹ <https://www.ncbi.nlm.nih.gov/pubmed/28931384>

³⁰

https://orca.cf.ac.uk/107601/15/O%27Neill_An%20exploration%20of%20solutions%20for%20improving%20access%20to%20affordable%20fresh%20food%20with%20disadvantaged%20Welsh%20communities.pdf

³¹ BMA Diet-Related Illness 2016

³² <https://www.ohchr.org/Documents/Publications/FactSheet34en.pdf>

We need to create policies that enable and ensure the right to sustainable, nutritious food, and place food sovereignty at the heart of the creation of a sustainable food policy. Improving access to healthy foods is not sufficient – we must tackle factors such as poverty, deprivation and inequality, which are influential in causing negative health outcomes, and empower citizens to make healthier choices for their overall quality of life.

Conclusion

There are at least four deep cracks in our food system. The food system 1) comes at great environmental cost and its contribution in ending the climate emergency is untapped; 2) raises issues of access and generates an unequitable distribution of resources; 3) does not enable healthy diets; 4) and is reliant on ever-growing numbers of animals, whose well-being is systematically neglected.

In this document, we have addressed food production (area 1), and food consumption from an access point of view (areas 2 and 3). We have outlined how a plant-based approach can begin to heal those four cracks that mar our food system and the individuals which compose it.

1) The climate emergency is best addressed via a plant-based approach, as a great deal of evidence suggests that this is the most carbon-light. 2) Equity can be addressed by retaining existing government support for farmers but distributing it in a fresh way which takes account of public benefits. Issues of access are complex, but policies such as a fruit and vegetable subsidy will help to make nutritious, sustainable food more accessible. A plant-based approach is more efficient in terms of resource use, food waste on-farm, and greenhouse gas emissions, so that on an international level this approach is more equitable. It will minimise the adverse consequences the UK's system has on other countries. 3) There is evidence suggesting that more plant-based diets are needed to rebalance current patterns of consumption. Supporting the production and consumption of pulses, fruit, and vegetables is necessary to boost health and the well-being which accompanies it. 4) A plant-based system is not reliant on livestock, and will also reverse the worrying trend towards intensification of animals both in other countries and our own.

Many of the suggested policies divert existing funds, will lead to longer-term savings, or are cost neutral to begin with. Moreover, the food system is too central to society to be ignored.

The public expects government to lead where the food system is generating problems for society.³³ With the government having accepted the net zero target, radical action is now required. And as eating patterns and attitudes change, the time for these policies is now.

³³ p. viii, Wellesley, L. and Froggatt, A (2015) 'Changing Climate, Changing Diets: Pathways to Lower Meat Consumption', Chatham House.