



Submission of evidence: Environmental Audit Committee Planetary Health Enquiry 20/12/18

About Feedback

Feedback is a charity which regenerates nature by transforming our food system. To do this we challenge power, catalyse action and empower people to achieve positive change. To move towards a food system that nourishes both people and our planet will require significant changes to our food culture, the food economy and its governance. We are seeking to bring about these changes through a unique combination of campaigning and advocacy, citizen engagement and pilot programmes. For more information visit our website: www.feedbackglobal.org

Introduction

We welcome the Environmental Audit Committee's Planetary Health enquiry. We believe the concept of 'planetary health' is particularly useful in regard to the food system, a sector across which human health and the health of our planet and the ecosystems it maintains most closely overlap. In 2016 the UK food system contributed approximately 10% of our yearly Greenhouse Gas (GHG) emissionsⁱ, and globally our food system drives deforestation, biodiversity loss, freshwater use and around significant global GHG emissions. Adopting the right strategies for land use in the UK will determine outcomes for both public health and the UK's contribution to wider climate change.

Feedback believes that:

1. Our current food system is damaging planetary health and exacerbating public health challenges.
2. Adopting policy measures to transition to a sustainable food system based on circular principles could present many benefits for both planetary health and public health.
3. There is currently a dangerous gap between practice and the policy and regulation needed to enable the transition to a more sustainable food system with action urgently required.

To preface our responses to the committee's questions, we would like to present Feedback's model for a more sustainable food system, based on a circular approach. Feedback's model of our current food system demonstrates its linearity: food moves in one direction, from production and processing, to consumption and disposal. At every level of this system, vast quantities of food go to waste: WRAP estimates UK food waste at around 10 million tonnes per year, post-farm gateⁱⁱ. Because no one bears the costs of this waste, the system is characterised by overproduction and high levels of pollution, with significant challenges to the UK's ability to meet our climate change targets. Moreover, this overproduction leads to a growing food system, that is to say, one that uses ever growing land mass, driving significant biodiversity loss.

Feedback enables the regeneration of nature by reducing the demands placed on it by the food system. To do this, we challenge power, catalyse action and empower people to achieve positive change.

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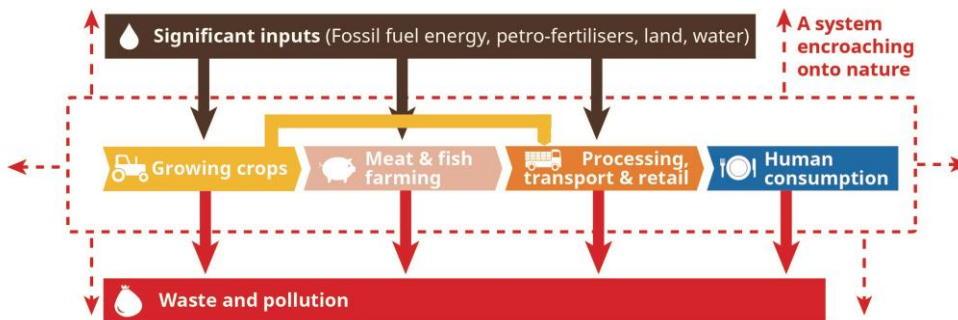


Figure 1: Our current linear food system

Feedback’s model for a sustainable food system:

To replace our linear food system, Feedback proposes a circular model. This food system would require fewer resources to produce our food and lose far less in the form of waste. In fact, a defining principle of our circular food system is that food previously seen as ‘waste’ has value and can be used as a resource. Ideally this surplus food should be used for the purpose it was originally intended, as per the food use hierarchy: usually this means that if food is fit for human consumption, it should feed people. If not, it should be repurposed to feed livestock and fish, and finally, fed to soils through compost and manure. All three levels of the food system – humans, animals and soils – need to be fed and replenished to create a sustainable future. As what was formerly seen as ‘waste’ is reused, less waste pollution through landfill disposal is created, and less resources are needed to produce food in the first place. This stable, constrained system, requiring less land mass, since resources are more efficiently used within the food system, will leave more of nature free to flourish, as well as providing healthy and sustainable diets for all.

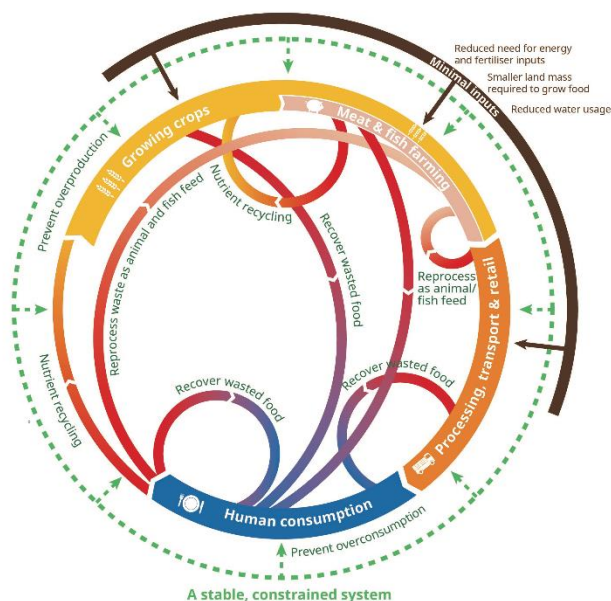


Figure 2. Feedback’s circular model for a sustainable food system

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Our response to the consultation is based on the principles embodied by this model and by the understanding, demonstrated by the Barilla ‘Double Food Pyramid’ that diets shown to be supportive of human health are also most beneficial for planetary healthⁱⁱⁱ.

Global issues

1. What are the threats to global planetary health, and what do they mean for public health, including diets, in the UK?

1.1 Globally, planetary health and public health are inextricably linked through our food system. At Feedback we are particularly concerned with the impact of the following issues on planetary health: food waste, industrialised meat production and soil depletion. All these issues have major implications for public health and particularly for non-communicable disease levels.

1.2 Food waste poses a major challenge to global food production. The UK wastes around 10 million tonnes of food a year, a figure which does not include food waste occurring in primary production, where Feedback has seen consistent evidence of large quantities of fresh, healthy food going unharvested due to market conditions^{iv}. WRAP conservatively estimates that approximately 2.5 million tonnes of edible crops are wasted on UK farms^v. Food waste drives excessive GHG emissions from agriculture, as well as wasting other inputs including nitrogen fertilisers and, where meat waste is concerned, inputs including imported feed such as soy. Globally, around one third of food produced is wasted and if food waste were a country it would be the third largest emitter of GHGs after the US and China^{vi}. Significantly reducing food waste by following the principles embodied in the food use hierarchy (Figure 3) is a clear and positive step towards reducing the impact of the food system on planetary health. The food use hierarchy is currently enshrined in simplified form under UK waste regulations^{vii}.

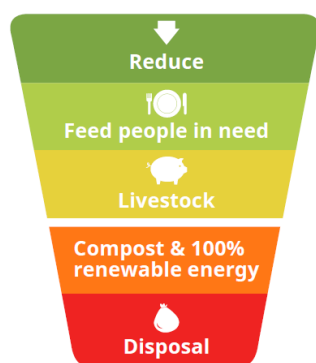


Figure 3. The food use hierarchy

In addition to reducing the impact of food production on our environment and climate, addressing food waste has potential positive benefits for public health through increasing availability of fresh, healthy fruits

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and vegetables and increasing the UK's food resilience by maximising the use of home-grown foods. Recent research has highlighted that reducing food waste is the third most effective solution to fighting climate change, after refrigerant management and onshore wind turbines^{viii}.

1.3 Industrialised meat production is an issue of growing global concern in terms of the impact of livestock cultivation on our ability to meet the conditions required to limit climate change to below 1.5°C. IATP estimates that global industrialised meat production will absorb 81% of our available carbon budget in 2050^{ix}. In order to make significant contributions from the agriculture sector to reaching a net zero target, the government should adopt policies which encourage a 50% reduction in public consumption of intensively produced meat by 2030, an approach which will also have major public health benefits. The University of Oxford recently found that “reducing consumption of animal products by 50% by avoiding the highest-impact producers achieves 73% of [a] plant-based diet’s GHG emission reduction”^x. Meanwhile, high consumption of red meat and processed meats has been associated with increased health risks including bowel cancer and obesity^{xi}.

1.4 As the single biggest contributor to man-made GHGs addressing agriculture is vital for planetary health. In addition to wasted food, much of this footprint is to produce foods which do not make a positive contribution to public health: we use more land to grow sugar in the UK than salad and vegetables^{xii}. Land and topsoil are finite resources; it takes from 500 to thousands of years to create an inch of topsoil. As the Secretary of State has pointed out, some soils in England have finite decades of fertility left^{xiii}. The use of finite land and topsoil to grow energy crops, animal feed and ingredients for processed foods limits the availability for healthier horticultural products without expanding our agricultural land (and GHG) footprint. In 2017 in the UK, over 132,000 hectares (ha) were used to grow biocrops^{xiv}, 111,000 ha for sugar beet and only 96,000 ha for all vegetables and salad for human consumption^{xv}. This is in the context of insufficient consumption of fresh vegetables (globally and in the UK) leading to type 2 diabetes and other non-communicable diseases^{xvi}.

2. What action is being taken internationally to tackle these threats? Could the UK be doing more to drive international action? What opportunities are there for the Government to promote good planetary health in forthcoming international summits or agreements?

2.1 Feedback are concerned that current international action is insufficient to address threats to the future stability of our food system posed by the issues discussed above. In particular, within the framework of the Paris Agreement, very few signatory states have committed to addressing agricultural GHG emissions, or ‘demand-side’ issues like food waste and excessive consumption of intensively produced meat and dairy. Within the framework of the Government’s proposal to adopt a net zero target for the UK, and in future updated Nationally Determined Contributions the UK submits under the Paris Agreement, we recommend that the Government incorporate ambitious agricultural emissions targets, which include measures to reduce public consumption and production of industrialised meat and dairy by 50% by 2030.

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Government action

4. What actions ought the UK Government to take to mitigate the risks to human health from climate change?

4.1 The UK Government should address the challenges outlined above through considering the following policy options with overlapping and multiple benefits for both planetary and public health, and for local and regional food economies:

4.1.1 Reducing food waste in supply chains by 50% by 2030:

- Measure food waste occurring on farms and set targets to reduce it by half by 2030.
- Require large food businesses to publicly and transparently report on food waste in their business operations and their supply chain, including primary production, and to commit to stretching targets to halve food waste in their businesses by 2030.
- Strengthen and implement the requirement for food businesses to follow the food use hierarchy in preventing and disposing of food surplus and waste.
- In addition, there are huge potential global environmental benefits to diverting a proportion of the UK's food waste for safe feeding of animals, particularly feeding pigs. Calculations based on EU-wide data suggests that feeding safely treated meat-containing surplus food to pigs could reduce demand for up to 268,000 ha of soybean production, which could "mitigate ca. 2.6 % of the forecast expansion of soybean, reducing pressure on high-biodiversity tropical biomes accordingly."^{xvii} Using food waste as animal feed scores better on 12 out of 14 environmental (e.g. eutrophication and eco-toxicity) and health (e.g. carcinogens) indicators compared to Anaerobic Digestion or composting^{xviii}. The calculations in the study were based on the current UK energy mix for the energy needed to render the food waste safe. If renewable energy was used, feed could potentially beat biogas and compost on all indicators. **Feedback calls for the Government to use the opportunity of leaving the European Union to lift the current ban on using catering waste and food surplus that may contain traces of meat from retail and manufacturing as feed for omnivorous non-ruminant livestock, such as pigs and chickens^{xix}.** The current ban on the feeding of safe, well-regulated and treated food waste to pigs has led to a reliance on expensive and environmentally damaging conventional feeds. We propose that this ban is replaced with robust legislation regulating the treatment of food surplus not suitable for redistribution for human consumption in off-farm licensed processing facilities so that it can be safely fed to omnivorous non-ruminant farm animals.

4.1.2 Reducing industrial meat and dairy production and consumption by 50% by 2030:

- Require public bodies to adopt a simplified balanced scorecard approach for food procurement which favours locally or regionally produced food, produced to high environmental standards (including preventing food waste in the supply chain) and which prioritises plant-based meal procurement with limited meat and dairy.

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- Require food retailers to publicly report on yearly sales of meat and dairy and to commit to high standards of labelling which clearly indicate method of production.
- Require food businesses to commit to targets to a 50% reduction by 2030 the proportion of intensively produced meat and dairy sold through their business.
- Commit to extending agricultural emissions targets within a national net zero target, including integrating 'demand-side' measures including halving food waste by 2030 and halving production and consumption of industrial meat and dairy by 2030 into the UK's Nationally Determined Contribution under the Paris Agreement.

4.1.3 Protecting soil carbon levels and fertility and incentivising the production of sustainably produced and nutritious food in the UK:

- Within the proposed public money for public good approach adopted by the Agriculture Bill: recognise public health as a public good, therefore putting in place the mechanisms to favour some types of crops and animal farming over others, according to their nutritional value or other health benefits (such as avoidance of animal antibiotics); Recognise the resilience and sustainability of the agricultural system as a public good, by supporting a diversity of farming systems, including agroecological systems, and a diversity of farming organisations, including cooperatives, small farms and community supported agriculture; Treat the reduction of food waste, particularly on farms, as a public good.
- To safeguard planetary and human health, it is imperative that we shift the definition of agricultural productivity which encompasses what sorts of food we grow, not just how much we grow - sustainable productivity must account for health of people and resources, now and in the future. We propose that productivity should be recognised as nutritional value consumed by acre and not tonnage produced by acre. We recommend the Government incentivises a diverse portfolio of food production based on sustainable and nutritious dietary guidelines such as the Barilla Centre's Double Pyramid^{xx}. Foods with lower GHGs have been found to produce better human health outcomes: an Oxford research study examined the effect of a £2.72/tonne carbon dioxide equivalents tax applied to every 100g of food with above average GHG emissions. The model showed that taxing ecologically harmful foods would prevent 7,700 deaths and reduce GHG emissions by 18,683 ktCO₂ e/year (and generate tax revenue of £2.02 billion)^{xxi}. Taxation is one strategy the Government should consider in developing a nutritious portfolio of agriculture across the UK and increase the true productivity of our land and soil.

4.1.4 To help the Government meet the outcomes in the 25 Year Environment Plan and Clean Growth Strategy we recommend the Government defines the purpose of land management as maximum nutritional value for minimal environmental impact or maximal environmental enhancement. For maximum environmental enhancement agriculture should focus on a diverse portfolio of food production based on sustainable and nutritious dietary guidelines.

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- ⁱ <https://www.theccc.org.uk/publication/land-use-reducing-emissions-and-preparing-for-climate-change/>
- ⁱⁱ http://www.wrap.org.uk/sites/files/wrap/Estimates_%20in_the_UK_Jan17.pdf
- ⁱⁱⁱ https://www.barillacfn.com/en/dissemination/double_pyramid/
- ^{iv} https://feedbackglobal.org/wp-content/uploads/2018/08/Farm_waste_report_.pdf
- ^v <https://www.thegrocer.co.uk/home/topics/waste-not-want-not/from-farm-to-food-waste-the-pre-farmgate-fight/559044.article>
- ^{vi} <http://www.fao.org/docrep/018/i3347e/i3347e.pdf>
- ^{vii} <https://www.gov.uk/government/publications/food-and-drink-waste-hierarchy-deal-with-surplus-and-waste>
- ^{viii} Hawken, P. (2017). Drawdown: The Most Comprehensive Plan Ever Proposed to Reverse Global Warming. London: Penguin.
- ^{ix} <https://www.iatp.org/emissions-impossible>
- ^x <http://www.ox.ac.uk/news/2018-06-01-new-estimates-environmental-cost-food>
- ^{xi} https://www.chathamhouse.org/sites/default/files/publications/research/CHHJ3820%20Diet%20and%20climate%20change%2018.11.15_WEB_NEW.pdf
- ^{xii} https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/654742/structure-jun2017final-eng-26oct17.pdf
- ^{xiii} <https://sustainablesoils.org/parliament-outputs/>
- ^{xiv} <https://www.gov.uk/government/statistics/announcements/area-of-crops-grown-for-bioenergy-in-england-and-the-uk-2017>
- ^{xv} https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/654742/structure-jun2017final-eng-26oct17.pdf Note: 2017 statistics due 31st Jan 2019
- ^{xvi} <https://foodfoundation.org.uk/about-peas-please/>
- ^{xvii} https://ac.els-cdn.com/S0306919215001256/1-s2.0-S0306919215001256-main.pdf?_tid=1d99decf-4020-46dd-8ae9-73fc2cbe8aa2&acdnat=1545308886_34314588d453b89a31e6f897ff28fbf7
- ^{xviii} <https://reader.elsevier.com/reader/sd/pii/S0959652616305042?token=A155D29B00BA96B6794C1F04D3EF07C1CF55E3796B3522940D4EEF07B19640FFEC9A9A8033F4D759BB9F0D4C3683731>
- ^{xix} <https://feedbackglobal.org/campaigns/pig-idea-2/>
- ^{xx} <https://www.barillacfn.com/en/publications/double-pyramid-2016/>
- ^{xxi} <https://bmjopen.bmj.com/content/bmjopen/3/10/e003543.full.pdf>

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