

# Planetary Health

## Commons' Environmental Audit Committee Inquiry

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### Introduction

The global food system as currently constituted is not working either for human health or for the planet. Rates of obesity and poor nutrition are growing while a significant proportion of the global population remain undernourished.

At the same time this food system is damaging the environment – the food we eat contributes 15-30% of total greenhouse gas (GHG) emissions in the UK<sup>1</sup> and we waste 10 million tonnes of food every year<sup>2</sup>. 90% of our fisheries are fully exploited or overfished<sup>3</sup>. Agriculture and livestock farming are by far the biggest contributors to deforestation, biodiversity loss, and soil pollution, as well as land and water use<sup>4</sup>.

As the professional body for dietitians in the UK, the BDA believes that dietitians have an important role to play in tackling this issue. Dietitians should be proactive advocates for healthy, sustainable diets, seeking to influence a range of policy areas, including education, pricing and accessibility at a local and national level. They should use their skills in interpreting and translating the latest evidence and expertise on sustainability to inform their day to day practice.

An expert panel of BDA members has created a toolkit outlining the evidence behind the impact of our diets on the environment and steps that can be taken to mitigate that impact. It can be accessed here: [www.bda.uk.com/onebluedot](http://www.bda.uk.com/onebluedot)

The rest of this submission draws on the findings of that toolkit to highlight a number of aspects of the relationship between our diets and the environment.

### The impact of our food system on the environment

Our food system impacts upon the environment at every stage, from farm to fork to the waste system.

#### Production

As a proportion of the UK's GHG output, agriculture and the food system are actually growing, because the sector has remained static while other areas, such as energy and waste, have improved. The Government's Committee on Climate Change have raised their concerns about the fact that the agriculture sector has not seen progress since 2008, with nearly half of farmers not taking any action to reduce GHG emissions<sup>5</sup>. The Committee makes it clear that a stronger framework for this sector is needed as voluntary approaches are not working, especially if the UK wants to meet its own emissions targets.

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<sup>1</sup> <https://www.food.gov.uk/research/research-projects/food-and-climate-change-a-review-of-the-effects-of-climate-change-on-food-within-the-remit-of-the-food-standards-agency>

<sup>2</sup> WRAP. Estimates of Food Surplus and Waste Arisings in the UK [Internet]. 2017 [cited Aug 2018]. Available from: [http://www.wrap.org.uk/sites/files/wrap/Estimates\\_%20in\\_the\\_UK\\_Jan17.pdf](http://www.wrap.org.uk/sites/files/wrap/Estimates_%20in_the_UK_Jan17.pdf)

<sup>3</sup> World Economic Forum July 2018 <https://www.weforum.org/agenda/2018/07/fish-stocks-are-used-up-fisheries-subsidies-must-stop>

<sup>4</sup> Food Climate Research Network (FCRN). Why food and climate? [Internet] 2018 [cited 7/20/2018]. Available from: <https://www.fcrn.org.uk/about/why-food-and-climate>

<sup>5</sup> <https://www.theccc.org.uk/wp-content/uploads/2018/06/CCC-2018-Progress-Report-to-Parliament.pdf> p183

90% of global fisheries are now fully exploited or overfished<sup>6</sup>, the marine vertebrate population has halved in the last 50 years and there is extensive degradation of the marine ecosystem. We remain too reliant upon a small number of fish species and need to diversify the fish we consume and ensure they come from sustainable sources<sup>7</sup>. This is particularly important if we are to increase our consumption of fish in line with dietary guidance from government of two portions per week, one of which should be oily. Currently every age group within the UK population consume less the recommendations<sup>8</sup>.

## Consumer choices

Certain foods have a particularly large environmental impact. The most recent assessment of UK dietary intakes found that red meat alone (including beef, lamb, pork, goat, and venison) was responsible for 24.2% of dietary related GHG emissions whilst white meat contributed 5.4%<sup>9</sup>. Livestock farming also has the biggest impact in terms of water and land use<sup>10</sup>.

Dairy (milk, yogurt, cream, cheese, ice-cream etc.) is responsible for 16.3% of total dietary GHG emissions and second only to beef consumption. Cheese is the most GHG emission intense dairy product<sup>11</sup>.

Although 54% of consumers surveyed by ComRes agreed that they would make changes to their diet if doing so would reduce the impact they had on climate change<sup>12</sup>, more than 75% of people consume meat either every day or at least every two to three days according to polling by Ipsos MORI<sup>13</sup>.

The UK's Eat Well dietary recommendations have deliberately been designed to be both good for health and more sustainable for the environment, but we also know that most people still eat too much salt, sugar and saturated fat and do not eat enough fruit and vegetables<sup>14</sup>.

## Waste

Wasted food and drink, regardless of its source, is harmful to the environment because of all of the land, water and energy used in its production as well as the release of potent GHGs (methane) by decomposing organic matter in landfill. Household waste accounts for 70% of all food and drink waste which equates to approximately 25% of all food purchased<sup>15</sup>.

WRAP estimates that the UK needlessly wastes 6 million tonnes of food every year, which is responsible for 20 million tonnes of GHG emissions (4% of UK's total GHG emissions).<sup>5</sup> Food waste has continued to gradually increase and, without government policy in place, it is unlikely to reduce. The government has been advised that policies to reduce food waste are paramount if the UK is to meet its future carbon targets<sup>16</sup>.

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<sup>6</sup> <https://www.weforum.org/agenda/2018/07/fish-stocks-are-used-up-fisheries-subsidies-must-stop>

<sup>7</sup> <https://www.mcsuk.org/goodfishguide/search>

<sup>8</sup> <https://www.gov.uk/government/news/new-national-diet-and-nutrition-survey-shows-uk-population-is-eating-too-much-sugar-saturated-fat-and-salt>

<sup>9</sup> Murakami K, Livingstone M. Greenhouse gas emissions of self-selected diets in the UK and their association with diet quality: is energy under-reporting a problem? *Nutr J.* 2018;17(1):27.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5822528/>

<sup>10</sup> Poore J, Nemecek T. Reducing food's environmental impacts through producers and consumers. *Science.* 2018;360(6392):987-92

<sup>11</sup> Green R, Milner J, Dangour A et al. The potential to reduce greenhouse gas emissions in the UK through healthy and realistic dietary change. *Clim Change.* 2015;129(1-2):253-65. <https://link.springer.com/article/10.1007/s10584-015-1329-y>

<sup>12</sup> [https://www.comresglobal.com/wp-content/uploads/2017/02/Climate\\_Shock\\_Tables\\_FINAL\\_090217.pdf](https://www.comresglobal.com/wp-content/uploads/2017/02/Climate_Shock_Tables_FINAL_090217.pdf)

<sup>13</sup> <https://www.ipsos.com/sites/default/files/migrations/en-uk/files/Assets/Docs/Polls/vegan-society-poll-2016-topline.pdf>

<sup>14</sup> <https://www.gov.uk/government/news/new-national-diet-and-nutrition-survey-shows-uk-population-is-eating-too-much-sugar-saturated-fat-and-salt>

<sup>15</sup> WRAP. Estimates of Food Surplus and Waste Arisings in the UK [Internet]. 2017 [cited Aug 2018]. Available from: [http://www.wrap.org.uk/sites/files/wrap/Estimates\\_%20in\\_the\\_UK\\_Jan17.pdf](http://www.wrap.org.uk/sites/files/wrap/Estimates_%20in_the_UK_Jan17.pdf)

<sup>16</sup> Peake L. Less in, more out: using resource efficiency to cut carbon and benefit the economy [Internet]. 2018 [cited 8/27/2018]. Available from: [https://www.green-alliance.org.uk/less\\_in\\_more\\_out.php](https://www.green-alliance.org.uk/less_in_more_out.php)

## The food system's impact on our health

Our diets are having a negative impact on our own health, not just that of the planet. The King's Fund have highlighted that diet quality is now the single biggest risk for death, ahead of smoking or drinking alcohol<sup>17</sup>.

### Overconsumption

In the simplest terms, overall dietary intake in the UK is too high, especially of energy dense, micronutrient poor foods<sup>18</sup>. The majority of the population needs to significantly reduce energy intake if we are to make headway with reducing obesity and obesity related diseases<sup>19</sup>. Currently, 63% of adults and 28% of children aged 2-15 years are overweight or obese. To tackle this, the government is taking aggressive action to curb the offerings of high sugar foods, portion sizes, and calories by all out of home food suppliers.

### Red and process meat

In 2011, SACN recommended that high red meat consumers (>90g per day) should reduce intakes to no more than 70g per day, to reduce colorectal cancer risk without compromising iron intakes<sup>20</sup>. Reducing red and processed meat intake is associated with reduced risk of colorectal cancer and reduced intakes of saturated fat and salt while the inclusion of plant proteins in the diet results in an improved fat profile, lower energy density and significantly increased fibre content.

### Action needed

The BDA believes that it the scientific evidence consistently demonstrates some common traits between sustainable and healthy diets Namely, a lower reliance on livestock products (especially beef and dairy), with a shift to more plant-based proteins (including wholegrains, beans, nuts and seeds), and reduced intakes of pre-packaged or highly processed foods, especially those high in fat, salt, and sugar. Modelling and real consumption data studies have repeatedly demonstrated that dietary patterns of higher nutritional quality, which are based on healthy plant foods and lower intakes of meat and dairy products, also have lower GHG emissions and better overall sustainability scores. Improving our diets can be a win-win – better for us and better for the planet.

Achieving this will require significant efforts in a range of areas:

### Government and Industry

The UK government needs to do more strategically to tackle the food system's role in climate change. The Government's independent Committee on Climate Change has made it quite clear that we need a stronger framework to deliver GHG abatement in agriculture to take from 2019 and that the 2018 Agriculture Bill should "set out a post-CAP framework which links financial support to agricultural emissions reduction and increased carbon sequestration"<sup>21</sup>.

They also estimate that the current Clean Growth Strategy only including limited measures for agriculture, delivering less than 1 MtCO<sub>2</sub>e by 2030. They estimate that other measures outlined in their fifth carbon budget<sup>22</sup> could deliver a further 6 MtCO<sub>2</sub>e of savings by 2030. Government needs to make these further measures a priority<sup>23</sup>.

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<sup>17</sup> <https://www.kingsfund.org.uk/sites/default/files/2018-11/A%20vision%20for%20population%20health%20online%20version.pdf> p27

<sup>18</sup> PHE. Results of the National Diet and Nutrition Survey (NDNS) rolling programme for 2014 to 2015 and 2015 to 2016 [Internet]. 2018 [cited 5/11/2018]. Available from: <https://www.gov.uk/government/statistics/ndns-results-from-years-7-and-8-combined>

<sup>19</sup> PHE. Calorie reduction: the scope and ambition for action [Internet]. 2018 [cited 7/20/2018]. Available from: <https://www.gov.uk/government/publications/calorie-reduction-the-scope-and-ambition-foraction>

<sup>20</sup> SACN. Iron and Health Report [Internet]. 2011 [cited 8/31/2018]. Available from: <https://www.gov.uk/government/publications/sacn-iron-and-health-report>

<sup>21</sup> <https://www.theccc.org.uk/wp-content/uploads/2018/06/CCC-2018-Progress-Report-to-Parliament.pdf> p182

<sup>22</sup> <https://www.theccc.org.uk/2016/07/20/fifth-carbon-budget-infographic/>

<sup>23</sup> <https://www.theccc.org.uk/wp-content/uploads/2018/06/CCC-2018-Progress-Report-to-Parliament.pdf> p195

From a health perspective, governments across the UK need to press on with efforts to tackle obesity and the obesogenic environment, and encourage healthier eating. Reformulation, restrictions on advertising and measures like the soft drinks industry levy need to be implemented or expanded where they are already in place<sup>24</sup>.

This will have the effect of also reducing the environmental impact of our diets. At the moment, too few people meet the government's recommendations for a healthy diet, including reducing red and processed meat and increasing fruit and vegetable intake. It is estimated that if a person eating a typical diet instead ate in line with PHE's Eat Well guidelines, there would be a 31% reduction in GHG emissions, 34% reductions in land use and a 17% reduction in water use<sup>25</sup>. If we did this as a nation, we could also gain an additional 17.9 million years of healthy life<sup>26</sup>.

## Industry

Retailers, manufacturers and the out of home sector can all take steps to help drive this dietary change, either by being mandated to do so by the government or voluntarily. Reformulating products, reducing portion sizes and increasing the availability of healthier and more sustainable options is an obvious step.

Marketing strategies typically used to encourage consumption can also be geared to encourage healthier choices. A recent systematic review of evidence on "nudges" to reduce meat consumption found that positioning plant-based choices to give them priority over meat items could be a promising way to reduce the demand for meat in some settings<sup>27</sup>. Some studies have looked at the effect of promoting sustainability norms on food purchases. As part of a survey, researchers at Stanford told people standing in line at a café that "over the last 5 years, 30% of Americans have started to make an effort to limit their meat consumption". Customers were more likely to order a meat-free lunch (34%) compared to a control condition (17%)<sup>28</sup>.

## The public

Although steps can be taken by industry and the government, the biggest changes will come from changing the nation's diets and altering our consumption patterns as a result. The BDA has outlined nine key changes that would have the double impact of improving health and reducing our environmental impact.

- Reducing red and processed meat
- Increasing plant proteins (beans, lentils, soya beans, mince, nuts, tofu, nuts and seeds)
- Eating only sustainable sources of fish
- Moderating dairy intake
- Consuming wholegrain sources of bread, pasta and rice
- Increasing intake of seasonal and locally produced fruit and vegetable and avoiding air-freighted or pre-packaged varieties.
- Drinking water or unsweetened tea or coffee as healthy sources of hydration instead of soft drinks
- Reducing overall portion sizes and avoiding High Fat, Sugar and Salt Foods.
- Reducing food waste and recycle packaging waste

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<sup>24</sup> <https://www.gov.uk/government/publications/childhood-obesity-a-plan-for-action-chapter-2>

<sup>25</sup> The Carbon Trust. The Eatwell Guide: a more sustainable diet: methodology and results summary [Internet]. 2016 [cited Jul 2018]. Available from: <https://www.carbontrust.com/media/672635/phesustainable-diets.pdf>

<sup>26</sup> Cobiac LJ, Scarborough P, Kaur A et al. The Eatwell Guide: Modelling the Health Implications of Incorporating New Sugar and Fibre Guidelines. PLoS One. 2016;11(12):10

<sup>27</sup> Bianchi, F., Garnett, E., Dorsel, C., Aveyard, P., & Jebb, S. A. (2018). Restructuring physical microenvironments to reduce the demand for meat: a systematic review and qualitative comparative analysis. The Lancet Planetary Health, 2(9), e384-e397

<sup>28</sup> Sparkman, G., & Walton, G. M. (2017). Dynamic norms promote sustainable behavior, even if it is counternormative. Psychological science, 28(11), 1663-1674

## Dietitians

We believe dietitians should be able to reconcile the nutritional and environmental science to give consistent messages about a healthy, sustainable and varied diet. They should be aware of the challenges that may result for vulnerable groups and individuals (e.g. those suffering ill health, pregnant women, people on low incomes, and older adults) and be able to provide advice on sustainable eating as appropriate.

Although we believe it is both affordable and realistic for most people to move to a more sustainable and healthier diet, dietitians can provide support to help overcome perceived barriers and provide practical advice. The BDA's One Blue Dot toolkit<sup>29</sup> is designed to help dietitians undertake this important role.

## Conclusion

Our diets are one of the biggest drivers of climate change, and also the biggest single factor in determining human health. The BDA strongly believe that encouraging sustainable diets will be a key way of improving both the health of the planet and its population. It's a win-win. Dietitians have a key role to play in making this a reality. We would be pleased to present further evidence to the committee on this topic if that would be useful.

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<sup>29</sup> [https://www.bda.uk.com/professional/resources/environmentally\\_sustainable\\_diet\\_toolkit\\_-\\_one\\_blue\\_dot](https://www.bda.uk.com/professional/resources/environmentally_sustainable_diet_toolkit_-_one_blue_dot)