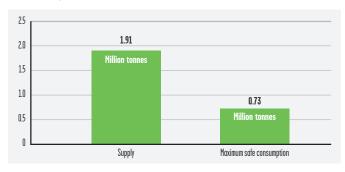
Sugar pollution: Curbing sugar supply for health and the environment

THE UK HAS AN OVERSUPPLY OF SUGAR

- The UK faces rising 'sugar pollution': the impacts on public health and the environment of producing, importing, and consuming too much sugar [1].
- The supply of sugar in the UK is currently two-and-a-half times the amount needed to meet the population's maximum recommended intake [2].

Figure 1: Total sugar supply in the UK vs maximum safe consumption for total population (5-year average for total supply, 2018–2022)



- Public health policies to reduce sugar consumption (e.g. expanding the Soft Drinks Industry Levy and restricting marketing) are necessary, but supply-side policy measures are also needed to reduce the harms being done by sugar.
- Recent citizen consultations suggest that policy changes to ensure a sustainable and healthy food supply would have broad public support [3].

SUGAR IS A MAJOR CAUSE OF DIET-RELATED ILL HEALTH

- Sugar consumption causes tooth decay, the most common NCD globally, taking a particular toll on children: oral diseases are the leading reason 5-9-year-olds in the UK are admitted to hospital [4].
- Sugar consumption is also linked to obesity, liver disease, type 2 diabetes, high bad cholesterol, cardiovascular disease, gout, and hypertension [5].
- The UK's Scientific Advisory Committee on Nutrition recommends free sugars intake should be 5% of total energy intake, but consumption is double this level. Intakes are especially high amongst children aged 4+ and teenagers where over 12% of energy intake is from free sugars [6].
- Public Health England's analysis found that reducing energy intake from sugar to 5% could prevent 3,500 deaths and 173,000 dental caries cases annually, whist saving the NHS £396m each year [7].

SUGAR IS ENVIRONMENTALLY DAMAGING AND UNSUSTAINABLE

- Over half of the UK's sugar supply comes from domestically grown sugar beet [8].
- During harvesting, sugar beet causes irreversible damage to some of our best-quality soils, lifting an average of 464,400 tonnes of topsoil from UK fields every year [9].
- Soil degradation is estimated to cost the economy of England and Wales £1.2 billion annually in lost ecosystem services, such as lost agricultural output and flood damage [10].
- Growing sugar beet also **relies on harmful neonicotinoid insecticides**, which have been banned in the EU, to maintain productivity [11].
- The cost of fruits and vegetables has skyrocketed in the UK and its supply of fruit and vegetables is insufficient to provide its citizens with the recommended five servings per day [12]. Reducing sugar supply to safe levels would free up agricultural land to support crops with high nutritional value and less impact on soil health.
- Sugar cane cultivation in other countries is also problematic due to high chemical and water usage [13].
 However, current trade policies are seeking to increase imports of raw cane [14].

DEMAND-SIDE POLICIES ARE NECESSARY BUT NOT SUFFICIENT

- In 2016, the government published 'Childhood Obesity: A Plan for Action', proposing a set of policies to reduce childhood obesity including a voluntary Sugar Reduction Programme and the Soft Drinks Industry Levy (SDIL).
- The Sugar Reduction Programme aimed to reduce sugar in products contributing the most sugar to children's diets by 20% by 2020. However, just 3.5% was achieved by retailers and manufacturers and 0.2% in the out-of-home sector.
 Supermarkets' total sugar sales increased by 7.1% [15].
- More successful has been the mandatory SDIL, which achieved a 34% reduction in total sugar sales from soft drinks (46,372 tonnes) between 2015 and 2020 [15].
- While self-reported sugar consumption may be falling (although underreporting may be driving this as people become more health-conscious about sugar), it is estimated that we are around a hundred years away from recommended consumption levels, if the current trajectory continues [16].
- Demand-side policies are important and government must build on the success of the SDIL with fiscal measures to incentivise companies to make healthier products, but supplyside measures to reduce sugar production and imports are also crucially needed.





Policy goal	Policies	Rationale
Reduce the UK's sugar supply in line with maximum safe consumption figures	 a. Introduce a quota on domestic sugar beet production b. Maintain or increase tariffs on imports of raw cane sugar c. Increase tariffs on imports of refined sugar (or ban imports completely) d. Increase tariffs on imports of confectionary and other high-sugar products that are key contributors to sugar intake e. Require future free trade agreements to conduct adequate environmental, equality and health assessments 	The UK will not be able to reduce sugar consumption in line with maximum intake recommendations at the population level unless the supply of abundant and affordable sugar is also reduced. Reducing the supply of sugar will involve reducing domestic production of sugar beet, but also ensuring that imports of refined and raw sugar do not increase as a result. This could be achieved by implementing environment- and nutrition-sensitive trade policies. It would also require ensuring that the co-products produced alongside sugar beet are not inadvertently subsidising its production.
Ensure environment- and nutrition- sensitive agricultural and land use policy	 a. Phase out subsidies to sugar beet production b. Subsidise horticultural production c. Cease to provide derogations for the use of neonicotinoids on sugar beet crops d. Provide support for some growers of sugar beet to transition to organic production 	Sugar beet is an inefficient crop from the perspective of nutritional value and environmental impact. It also requires the use of harmful insecticides to grow in current conditions. The UK's high-value land should be prioritised for growing crops which offer the most nutritional value for the least environmental impact. Sugar beet growers should be supported to make this transition.
Apply the 'polluter pays' principle to sugar production and/ or sale	a. Implement fiscal measures to disincentivise sugar production and sale	The true cost of sugar, accounting for its negative health and environmental externalities, is far higher than its market price. Sugar producers and manufacturers should be required to cover these costs to society, mirroring schemes the government is currently enacting to recoup costs on product packaging.

ABOUT FEEDBACK GLOBAL

Feedback is an environmental campaign group working for food that is good for the plant and its people. To do this we challenge power, catalyse action and empower people to achieve positive change.

ABOUT ACTION ON SUGAR

Action on Sugar is a group of experts concerned with sugar and obesity and its effects on health. It is working to reach a consensus with the food industry and Government over the harmful effects of a high calorie diet, and bring about a reduction in the amount of sugar and fat in processed foods to prevent obesity, type 2 diabetes and tooth decay.

REFERENCES

- Feedback Global and Action on Sugar. Sugar pollution: Curbing sugar supply for health and the environment. 2023. Available from: http://feedbackglobal.org/sugarpollution
- Richardson, B., and J. Winkler. 'Sugar Reduction in Post-Brexit UK: A Supply-Side Policy Agenda', Food Research Collaboration Brexit Briefing, 2019, https://foodresearch.org.uk/publications/ sugarbrexit-supply-side/
- Food, Farming & Countryside Commission. 'So, what do we want from food?' Citizens are hungry for change. https://cdn2.assetsservd.host/ffcc-uk/production/assets/downloads/FFCC_National-Conversation_report_design_v10_FINAL.pdf?dm=1695293205 (2023).
- NHS Digital. Hospital Admitted Patient Care Activity 2018-19. 2019. Available from: https://digital.nhs.uk/data-and-information/ publications/statistical/hospital-admitted-patient-careactivity/2018-19
- EFSA Panel on Nutrition, Novel Foods and Food Allergens (NDA), Turck D, Bohn T, Castenmiller J, de Henauw S, Hirsch-Ernst KI, et al. Tolerable upper intake level for dietary sugars. EFSA J. 2022;20(2):e07074
- Public Health England. NDNS: results from years 9 to 11 (2016 to 2017 and 2018 to 2019). 2020. https://www.gov.uk/government/statistics/ndns-results-from-years-9-to-11-2016-to-2017-and-2018-to-2019

- Public Health England. Sugar Reduction: The evidence for action. 2015. https://assets.publishing.service.gov.uk/government/ uploads/system/uploads/attachment_data/file/470179/Sugar_ reduction_The_evidence_for_action.pdf
- Defra. Agriculture in the United Kingdom. 2022. https://assets.publishing.service.gov.uk/government/uploads/ system/uploads/attachment_data/file/1170953/auk-2022-13jul23i. pdf.
- DEFRA (2022). Agriculture in the United Kingdom 2022 [Data set]. Retrieved from https://www.gov.uk/government/statistics/ agriculture-in-the-united-kingdom-2022 and DEFRA (2021).
 Agriculture in the United Kingdom 2021 [Data set]. Retrieved from https://www.gov.uk/government/statistics/agriculture-inthe-united-kingdom-2021
- Osman, K. T. Forest Soils: Properties and Management. 2013.
 Springer Science & Business Media.
- Defra. Further restrictions on neonicotinoids agreed. GOV. UK (2018), https://www.gov.uk/government/news/further-restrictions-on-neonicotinoids-agreed
- The Food Foundation. Policy Brief 4: How can policymakers boost fruit and vegetable production and consumption? 2023, https://shefsglobal.lshtm.ac.uk/wp-content/uploads/2023/04/ SHEFS_Fruit-and-Veg-Policy-Briefing-Series_Brief-4_FINALcompressed.pdf
- 13. Renouf, M. A., Wegener, M. K. & Nielsen, L. K. An environmental life cycle assessment comparing Australian sugarcane with US corn and UK sugar beet as producers of sugars for fermentation. *Biomass and Bioenergy* **32**, 1144–1155 (2008).
- 14. Government of Australia. Analysis Opportunities for Australian sugar exports to the UK. *DAWE* https://www.agriculture.gov.au/about/news/analysis-opportunities-for-australian-sugar-exports-to-the-uk (2023).
- Office for Health Improvements and Disparities. Sugar reduction

 industry progress 2015 to 2020. 2022. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1121444/Sugar-reduction-and-reformulation-progress-report-2015-to-2020.pdf
- Richardson, B., 2016, Sugar Shift: Six Ideas for a Healthier and Fairer Food System. 2016. Food Research Collaboration Policy Brief. https://foodresearch.org.uk/publications/sugar-shift-six-ideas-for-a-healthier-and-fairer-food-system/