

Carbon and health taxes on food can contribute to net-zero targets and improve quality of diets

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Combined carbon and health taxes on food products could significantly contribute to net-zero targets, while improving the quality of diets, a

major new study shows.

A tax applied to products that have a high greenhouse gas emission footprint and are bad for [health](#) would maximize benefits in terms of both environmental outcomes and the quality of diets, the research found.

Such a tax could cut the U.K.'s annual greenhouse gas emissions by nearly 40 megatons of CO₂e—equivalent to well over a third of the greenhouse gases that would remain to be eliminated after the implementation of planned decarbonization policies in order to hit the U.K.'s 2050 "net-zero" commitments.

Such a combined environmental and health tax would also improve the nation's diet through increased sales of fruit and vegetables and fewer purchases of sugary drinks, alcohol and unhealthy snacks.

The study, published in the journal *Nature Food*, examines how new food policies can change the purchasing behavior of the general public to help both tackle [climate change](#) and improve people's diets at the same time.

The research was co-authored by academics from the University of Exeter, the University of Reading and the London School of Hygiene & Tropical Medicine, and it is based on a survey designed by the research team and involving nearly 6,000 U.K. respondents.

Respondents were presented with a list of common food and beverage products—replicating an online supermarket—and they were asked to indicate their typical weekly purchases. Subsequent questions presented the same range of products but with new prices and/or different product information to simulate the effect of food taxes and the provision of details about the health and/or greenhouse gas emission characteristics of

different products. Each time a new policy was introduced, respondents could revise their food choices and any change in responses was used to estimate the effect of the different policies on food purchase behavior, and in turn, on [greenhouse gas emissions](#) and dietary quality.

Lead author Dr. Michela Faccioli, previously at the LEEP Institute, University of Exeter Business School and now at the University of Trento, said: "To date, governments around the world have been at best hesitant to implement food taxes, with the focus of such tax incentives being mostly to deter the consumption of unhealthy foods to improve personal health and reduce pressures on health services.

"Our findings show that food policies that additionally tax products with a high climate footprint could significantly contribute to greenhouse gas emission abatement and the achievement of the U.K.'s 2050 net-zero targets, while improving the quality of people's diets."

Professor Ian Bateman, Director of LEEP and study co-author, added: "We are very much aware of how many families are struggling at the moment because of the increase in food and energy prices. Our study shows that significant emission reductions could still be accomplished even without the application of the highest tax rates on food prices, which could boost the social acceptability of the intervention."

Dr. Cherry Law, from the University of Reading, said: "Governments have a responsibility to use policy measures now to ensure that we are tackling climate change, which is already having huge impacts around the world. Our results show that the addition of a carbon element to any [food](#) tax could create a win-win in which both health and [environmental concerns](#) could be addressed. While there is a cost of living crisis and Governments may be more hesitant than ever to use fiscal measures, the consequences of inaction could be even more costly."

More information: Michela Faccioli et al, Combined carbon and health taxes outperform single-purpose information or fiscal measures in designing sustainable food policies, *Nature Food* (2022). [DOI: 10.1038/s43016-022-00482-2](https://doi.org/10.1038/s43016-022-00482-2)

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