Demand reduction for climate change policy: some dietary implications

Pablo Monsivais
Senior University Lecturer

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Environmental impact of food consumption

Greenhouse gas* production

20%
Percent of UK GHGs produced by the food system (including agriculture, processing, distribution and consumption)

9%
Percent of UK GHGs produced by agricultural sector

* Particularly carbon dioxide, nitrous oxide and methane

Garnett. 2008
Public health context

Leading causes of death in the UK in 2013

- Ischemic heart disease
- Stroke
- Hypertensive heart disease
- Colorectal cancer
- Diabetes

Strong association with unhealthy diet
Food, diet and public health

Unhealthy diet is leading risk in the UK

Newton et al., Lancet. 2015
Food, diet and public health

Unhealthy diets: Just eating too much?

Climate impact of diet and calories consumed

French Adults

\[ n=2624 \]

\[ y = 0.366x + 527.66 \]

\[ R^2 = 0.67 \]

Vieux et al., Ecol Econ. 2012

British Adults

\[ n=25,639 \]

\[ y = 0.003x \]

\[ R^2 = 0.225 \]

Monsivais et al., Am J Clin Nutr. 2015
Food, diet and public health

Unhealthy diets in the UK: diet composition?

Too much: red meat, processed meat, sugar-sweetened beverages, trans fats, sodium

Newton et al., Lancet. 2015
Reducing meat intake

A happy alignment of health and climate goals

Friel et al., Lancet. 2009
Food, diet and public health

Unhealthy diets in the UK

Excess calories

Too much: red meat, processed meat, sugar-sweetened beverages, trans fats, sodium

Too little: fruit, vegetables, whole-grains, nuts and seeds, milk, seafood, fibre, calcium, polyunsaturated fatty acids, omega-3 fatty acids

Newton et al., Lancet. 2015
Aligning dietary recommendations with sustainability: The case of seafood

Editorials

Oily fish and omega 3 fat supplements

Health recommendations conflict with concerns about dwindling supply

“We are faced with a paradox. Health recommendations advise increased consumption of oily fish and fish oils, within limits, on the grounds that intake is generally low. However, industrial fishing has depleted the world’s fish stocks by some 90% since 1950, and rising fish prices reduce affordability particularly for people with low incomes.”

Brunner., BMJ. 2006
Aligning dietary recommendations with sustainability: The Swedish example

Find your way

to eat greener, not too much and be active

MORE
Vegetables, fruit and berries
fish and shellfish
nuts and seeds
exercise

SWITCH TO
wholegrain
healthy fats
low-fat dairy products

LESS
red and processed meat
salt
sugar
alcohol

In truth, most people know perfectly well what they should eat. It’s no secret that vegetables are good for you and sugar isn’t.

But knowing and doing are two different things. We’ll give you advice and handy tips here to make it easier for you to adopt successful eating habits that are sustainable for both your health and the environment. So you can find your own way of eating greener, not too much and be active. After all – even tiny steps can make a huge difference!
Some dietary recommendations for health are also good for climate…

Adapted from Monsivais et al., Am J Clin Nutr. 2015
...but others might not be

Vegetables

Foods high in sugars

Adapted from Monsivais et al., Am J Clin Nutr. 2015
Sustainable dietary patterns

Sustainable Diets are those diets with low environmental impacts which contribute to food and nutrition security and to healthy life for present and future generations. Sustainable diets are protective and respectful of biodiversity and ecosystems, culturally acceptable, accessible, economically fair and affordable; nutritionally adequate, safe and healthy; while optimizing natural and human resources.
Conclusions and questions

• Eat fewer calories and less meat

• Eat more nutritious foods not always carbon-friendly - evaluation needed

• Reducing carbon intensity of healthier food choices should involve structural changes to agriculture and food system
  • Reducing food waste
  • Increasing efficiency of food production and distribution

• Notion of sustainable diets should include economic fairness and equity
Thank You
pm491@medschl.cam.ac.uk

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“Let food be thy medicine and medicine be thy food.”
Hippocrates

“…[eating] is inescapably an agricultural act, and that how we eat determines, to a considerable extent, how the world is used.”
Wendell Berry