

An appetite for destruction

Food links human health with that of our environment. Changes to eating habits are urgently needed if we are to achieve the Paris Agreement goals — changes that will also address the leading causes of ill health in the world today.

The establishment of agriculture, the agricultural revolution of the eighteenth century and the green revolution of the 1950s and 1960s have all been crucial underpinnings of the development of the modern world. Stable, affordable, good quality food is a precondition for a healthy population and geopolitical stability. Enormous gains in food production have been achieved, but they have not come for free. Agriculture, and the wider food system in which it is embedded, is one of the major pathways for human impact on the planet. Land appropriation for farming has been a major driver of habitat loss — around 35% of all land is in use for agriculture (around 50% of habitable land). Water is also heavily utilized in farming, with around 70% used by the sector. Because so much land and water resource is used in agriculture, the management trajectory of the sector will be critical for climate change impacts and adaptation activities in almost all other sectors. In addition to its cross-cutting importance for climate change adaptation, agriculture is a major contributor to greenhouse gas emissions, with an important role to play in mitigation efforts. About 24% of greenhouse gases originate from agriculture, forestry and other land uses, with around 12% directly attributable to agricultural activities. Efforts to further improve production processes — supply side measures — to cut emissions won't be sufficient; we need to change consumption patterns if we are to succeed in mitigating climate change in time to avoid high risk of dangerous climate change¹.

Problems associated with the global food system are not restricted to the environment. Poor diet is the leading cause of ill health in the world today, with rates of diet-related non-communicable disease (such as cardiovascular disease and type II diabetes) increasing in every region², affecting people in countries across the spectrum of national wealth and development. Globally overweight and underweight individuals account for more than half the population, making malnutrition in all its forms the new normal³, and the estimated cost to the global economy is up to US\$3.5 trillion per year

(much more than the combined estimated market values of Apple and Amazon). In short, global diets link environmental sustainability and human health³, and the food system is performing poorly on both counts. That's already grounds for action to change our diets for healthy people and a healthy planet, but these issues are going to be greatly exacerbated by the need to feed a projected 10 billion people by 2050 whilst adapting to climatic change (which is already contributing to a recent upsurge in hunger⁴), cutting emissions and minimizing other environmental impacts, including habitat loss and pollution. Increasing urbanization and changing dietary expectations make this a highly challenging set of objectives.

Our eating habits are making us and the planet increasingly unhealthy — it's a lose-lose situation. We need to change, but to what should we aspire? That is the question a recent report from the EAT-Lancet Commission on Healthy Diets from Sustainable Food Systems⁵ has attempted to answer. They have synthesized the available evidence on food and human health and on the sustainability of food production systems to develop a set of dietary guidelines that account for these inter-related issues. At first glance there isn't much fundamentally new: they recommend a diet rich in plant-based foods including whole grains, fruit and vegetables and nuts but with a low proportion of starchy foods. Animal-based foods are present — this is not a vegan or vegetarian diet — but meat and animal-derived foods such as eggs and dairy are all given modest allocations, much less than is typically consumed in developed nations today.

The major new aspect of this work is the attempt to provide quantitative science-based guidance on a diet that is good for health and the planet, providing recommended daily weight allocations for each food. The good news is that, according to the report, it is still possible to reduce environmental harm while improving human health. However, significant changes are required and the timescale is short. This will sound familiar to those who have been following climate change policy over the last

decade or so⁶. The EAT-Lancet Commission proposed win-win diet would halve global consumption of red meat and sugar, and more than double intake of fruits, vegetables and nuts compared with today.

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Naturally these targets, and the land use transitions that would be required to achieve them, have received a mixed reception. Quantifying a healthy and sustainable diet is one thing, but getting people to choose to produce and eat it is quite another. The report outlines a number of avenues to encourage uptake of what they call the 'great food transformation', from changes in international and national level commitments to cutting food waste. These transitions need to happen quickly; in particular, the timeline for meeting Paris Agreement targets requires steep cuts in greenhouse gas emissions over the next 10 years. Does a speedy food system transition seem likely given that many broad food trends are running counter to the recommendations in this report⁷? It is certainly going to be a challenge, but as the report concludes, the data are both sufficient and strong enough to warrant immediate action. There is much to lose and indeed much to gain in making this transition. If the 'great food transformation' can fulfil its goal of keeping us on track to keep the climate within safe boundaries, and tackle a growing global health burden, then the benefits surely outweigh the costs. □

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