

Health & Physiology

Environmental sustainability of nationally recommended diets

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We are what we eat – similarly, our environment depends more and more on our choices for our daily menu. National recommended diets are intended to provide us with healthier food habits. However, are those diet more environmentally sustainable than nation's average diets?

It has long been understood that what we eat impacts not only our health, but our environment too. Despite this food-sustainability awareness, very few national dietary recommendations (NRD) make any consideration of sustainability. For example, the USDA's Dietary Guidelines for Americans has a lot of useful information, including many examples of healthy eating patterns, and how diets are formed through social and cultural values. However, in all 144 pages of the guidelines there is not a single mention of the environment or sustainability.

In a recent publication in the Proceedings of the National Academy of Sciences, myself and colleagues looked at NRDs in 37 nations worldwide and found that only four make any mention of sustainability: Sweden, the Netherlands, the United Kingdom, and China.

Though, the British and Chinese guidelines dedicated less than 10 words to the discussion of sustainability. So, in effect, only 2 of the 37 nations consider sustainability in their NRDs.

In the work, we compare the environmental impact of following an NRD compared to the average national diet. Despite the lack of focus on sustainability in NRDs, we find that it is generally better to follow them in high-income nations, as they recommend replacing animal-based diets with plant-based ones. Animal-based foods – consumed at national average rates, can have negative impacts on health and detrimental impacts on carbon emissions, water quality, and land use. Looking across high-income nations,

the largest benefits associated with following NRDs instead of average diets are seen in the United States, Europe, Australia, Brazil, and Canada. In these cases, the message is 'win-win' for both your health and the environment.

In lower-income nations, such as India and Indonesia, following an NRD instead of the average diet can actually increase environmental impacts by a small amount, because the average diet is so low in proteins and micronutrients. As nations get richer, they may begin to consume a diet closer to the western diet, which is characterized by a high intake of animal-based food sources (such as meat and dairy). This will present a difficult balancing act for policymakers, who will need to provide guidance that meets the nutritional needs of both poor and rich members of society.

Notwithstanding the lack of environmental focus in these recommendations, following NRDs may still help you reduce your impact on the environment. But could guidelines be improved for better environmental outcomes?

Given that you cannot address a problem you are unaware of, and which is not mentioned in the guidelines, the answer is probably yes. Unfortunately, the solution is not a one-size-fits-all. There are large variations in national diets around the world, for example, Indonesians eat very different things to Brazilians. There are further differences even within countries, for instance, lowans have different diets to Californians.

Recommendations that balance nutritional and environmental concerns will likely have to be tailored to regions and cultures. There has already been some success with this in Nordic and Mediterranean diets, which have tried to balance the environmental impacts of locally-sourced foods to health needs.

The food system is vast; occupying a third of the global, ice-free land, and accounting for a similar proportion of greenhouse gas emissions. Growing affluence, climatic changes, and rising populations through to the middle of the century will undoubtedly increase pressures on a system which is already facing many critical challenges. One thing is for sure: if we are not talking about environmental issues in dietary recommendations, then we are not even beginning to explore the options for improving our long-term, global environmental health.