

# Minor change in your diet can reduce water use for agriculture

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*The dietary changes recommended by the study can protect you from coronary heart disease, stroke, diabetes, and cancers as well as reduce the greenhouse gas emissions from agriculture. Credit: Marco Verch/Flickr*

A [modeling study published on Wednesday in \*The Lancet Planetary Health\*](#) suggests that India's agricultural need for water can be met if Indians introduce minor changes in their diet. These changes include reducing their consumption of wheat, dairy, eggs, poultry, nuts and seeds and increasing their consumption of legumes, which, despite their relatively high **blue water footprints**, are a good source of protein.

The researchers also advise a switch from white meat (poultry) to mutton and other red meat and to reduce their consumption of fruits such as grapes, guava and mango and consume melon, orange and papaya. This dietary shift will help achieve the 2025 and 2050 blue water footprint reduction targets of 18 per cent and 30 per cent.

For those worried about compromising on nutritive values of their food, there is good news. The changes in diet will still meet the recommended dietary guidelines of the World Health Organization. Additionally, these changes would protect you from coronary heart disease, stroke, diabetes, and cancers and also reduce the greenhouse gas emissions from agriculture. The research team led by Alan D Dangour, the Department of Population Health, London School of Hygiene & Tropical Medicine, UK, had previously reported that the per person diet-related greenhouse gas emissions are low in India compared with Western diets but that the agriculture-related water use is high.

Excerpts from an interview:



*Down To Earth (DTE): Is it possible to bring about these changes in the diet? Are there any global examples of communities which shifted over to healthy diets?*

Alan D Dangour:

Our modelling demonstrates that dietary change is a potential way to improve resilience of the Indian food system in the face of future groundwater decline. Although changing people's dietary habits is challenging, there are examples of government policy resulting in reductions in population-level intakes of salt, certain fats and other foods. As we enter a new era, where people are increasingly aware of and concerned about the environmental consequences of their food choices, there is a clear potential that dietary habits may be more easily changed.

DTE: Who would be responsible for this change – the government or food manufacturers?

*Dangour:* The purpose of our work was to identify this as an important issue and to make some evidence available for use by policy makers and the wider public. These shifts in behaviour and practice require multiple levers. The government plays a role as does the food industry, and so do people when they have choices about the food they eat.

**DTE: Do you see the private industry being responsible in this matter? Why would they promote healthier food? For example, cultivation of sugarcane is water intensive and soft drinks are rich in sugar. Do you see the soft drink industry cutting down on this product?**

Dangour:

Everyone has a role to play in ensuring that food systems in India and globally are resilient and able to deliver healthy and nutritious diets for all. Government policy is important to future-proof national food systems. The industry and its response to increased environmental stress is important. Similarly, how people perceive and respond to changes in the environment in the future is also critical.

DTE:

Why did you choose India as a case study?

Dangour: Much of the previous research on sustainable diet has focussed on high-income settings. In places like the US and Europe, we tend to consume too much meat and therefore, reducing meat consumption tends to be a key solution to making diets healthy and more environmentally sustainable. This is not the case in India as meat consumption is currently very low. We also wanted to bring water use into the discussion on sustainable diets. The population of India is projected to grow and the consumption habits are already changing. Considering changing climate and other factors, the current form of irrigation is likely to be unsustainable in the future.

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