

# Appendix C: What is a healthy and sustainable diet?

Many researchers have published influential reports on the topic, most notably the [EAT-Lancet Commission Report \(2019\)](#), but these reports tend to provide guidelines or strategies for achieving “both planetary and dietary health.” These reports, thus, provide a direction for sustainable diet shift, but users report being unclear and confused by the evidence on what a healthy and sustainable diet is. Based on the literature, the individual components of ‘diet-shift’, ‘healthy’ and ‘sustainable’ are described below, then synthesised to create a definition of healthy sustainable diets which will be used throughout this project.

## Diet-shift

Diet shift is understood as the broad goal of shifting, or influencing, consumption choice and behaviour toward healthy and sustainable diets, in line with the [Sustainable Development Goals](#) and recent goals of the [UN Food Systems Summit 2021](#). This is one goal of the broader transforming food systems agenda within a large, complex food system that is multifaceted, complex and crosses disciplinary, geographical and sector boundaries.

## Healthy diets

‘Healthy’ is a general descriptive term that encompasses nutritional health and variety, food safety and quality standards recommended/set out by the UK government and the National Health Service (NHS). The Eat-Lancet Commission Report describes healthy as “a state of complete physical, mental and social well-being and not merely the absence of disease.” It should be noted that it is a ‘state of being’ rather than a single goal, meaning that health changes over time and varies considerably between individuals. Health also expands beyond the physical to include aspects of mental and social well-being, which in the context of food relates to socio-cultural and individual dietary preferences and needs – for example, access to traditional and cultural food as well as safe and nutritionally adequate food.

## Sustainable diets

In general, the literature shares the view that a sustainable diet should be “rich in plant-based foods and with fewer animal-source” and processed, high salt, sugar, fat (HSSF) foods ([footnote 1](#)). Other guidelines, such as the EAT-Lancet Commission Report, the EU Farm to Fork Strategy and the VALUMICS Food System Dynamics Report, do provide “various attributes” for a sustainable diet, including:

- “a more plant-based diet with less red and processed meat and with more fruits and vegetables”
- a diet that “reduces food loss and waste”
- a diet based on “traditional and locally-accepted varieties” and organically sourced food
- a diet that “reduces the use of packaging, especially single use food packaging” ([footnote 2](#))

Broadly speaking, the EAT-Lancet Commission Report asserts that sustainable diets should adhere to planetary boundaries including greenhouse gas emissions, cropland use, fresh water

use, nitrogen cycling, phosphorus cycling and biodiversity loss (see Figure 4 below). The strategies listed above help meet these boundaries, although most literature agrees that drastic and immediate action is needed to avoid crossing the boundaries.

## Figure 4 EAT Lancet (2019) table on planetary boundaries

Source: Eat Lancet Commission Summary Report 2019, page 15.

Figure 4 EAT Lancet (2019) table on planetary boundaries (accessible version)

Earth System process	Control variable	Boundary (uncertainty range)
Climate change	GHG emissions	5 Gt CO <sub>2</sub> -eq yr <sup>-1</sup> (4.7 - 5.4 Gt CO <sub>2</sub> -eq yr <sup>-1</sup> )
Land-system change	Cropland use	13m km <sup>2</sup> (11-15m km <sup>2</sup> )
Freshwater use	Water use	2,500 km <sup>3</sup> yr <sup>-1</sup> (1000-4000 km <sup>3</sup> yr <sup>-1</sup> )
Nitrogen cycling	N application	90 Tg N yr <sup>-1</sup> (65-90 Tg N yr <sup>-1</sup> )* (90-130 Tg N yr <sup>-1</sup> )**
Phosphorus cycling	P application	8 Tg P yr <sup>-1</sup> (6-12 Tg P yr <sup>-1</sup> )* (8-16 Tg P yr <sup>-1</sup> )**

Earth System process	Control variable	Boundary (uncertainty range)
Biodiversity loss	Extinction rate	10 E/MSY (1-80 E/MSY)

\*Lower boundary range if improved production practices and redistribution are not adopted.

\*\*Upper boundary range if improved production practices and redistribution are adopted and 50% of applied phosphorus is recycled.

## Healthy and sustainable diets definition

Based on the available literature described above, healthy and sustainable diets can be understood to mean a pattern of consumption behaviour that prioritises both human (social, cultural and nutritional safety, sufficiency and adequacy) and planetary (considering planetary boundaries) health. This definition includes considerations beyond just the physical and also social, cultural and mental well-being.

1. Sources: Willet, W. and Rockstrom, J. et al. (2019) [Summary report of the EAT-Lancet Commission: Healthy diets from sustainable food systems -- food, planet, health](#); Xhelili, A. and Nicolau, M. (2021). ['From intention to action: Multi-stakeholder recommendations for making sustainable food consumption a reality'](#). [Research report] Valumics. Wuppertal.
2. Xhelili, A. and Nicolau, M. (2021). ['From intention to action: Multi-stakeholder recommendations for making sustainable food consumption a reality'](#). [Research report] Valumics. Wuppertal.