



Sustainable Diets for Better Human and Planetary Health

Mark Driscoll on behalf of the Alpro Foundation - February 2020

Introduction

Food is key to our health and to the health of our planet. From growing crops to processing, transporting, selling, storing and throwing away food – everything we eat has an impact on our environment and our own health. With a global population forecast to reach 9.7 billion by 2050 and climate change forecast to impede our ability to grow food in certain parts of the world, **growing enough healthy and sustainable food is one of our key challenges of the 21st Century.**

The way we grow and eat food is contributing to the twin challenges of:

- **Human Health Crisis**

This includes rising levels of obesity, overweight, non-communicable diseases (e.g. diabetes, heart disease, cancers) but also undernutrition.

- **Planetary Health Crisis**

This includes the production of green-house gas emissions driving Climate Change, land-use change driving deforestation and the impacts of fossil fuel-based fertilizers and pesticides on our wildlife and the natural world.

The single biggest step that will significantly improve both our own health and the health of our planet, is **to ensure we consume more plant-based proteins whilst reducing total quantities of meat and dairy products within our diets.**

Driven by concerns about health, sustainability and animal welfare, many people across Europe and North America are turning towards more plant-based diets (flexitarian, vegetarian and/or vegan diets) and are making conscious decisions to increase the proportion of plant-based foods they eat within their diets.

The key health and sustainability impacts of our food choices

The production and consumption of animal-derived foods (meat and dairy) has emerged as a key issue which drives many health and environmental impacts.

HEALTH - Over 51.6% of the European population is overweight and more than 20% are obese.¹ Unhealthy diets are the leading factor for all healthy life years lost in Europe.² Chronic diseases, such as cardiovascular disease, type-2 diabetes, account for 70%-80% of healthcare costs, corresponding to an estimated €700 billion per year in the EU. **Unhealthy diets are the leading cause of ill-health worldwide** and following a diet which doubles the amount of plants consumed has the potential to **avoid approximately 11 million premature deaths per year**.³

FOOD SECURITY - Many countries are facing the **double burden of hunger and undernutrition alongside overweight and obesity**, with one in three people across the globe currently suffering from some form of malnutrition.⁴

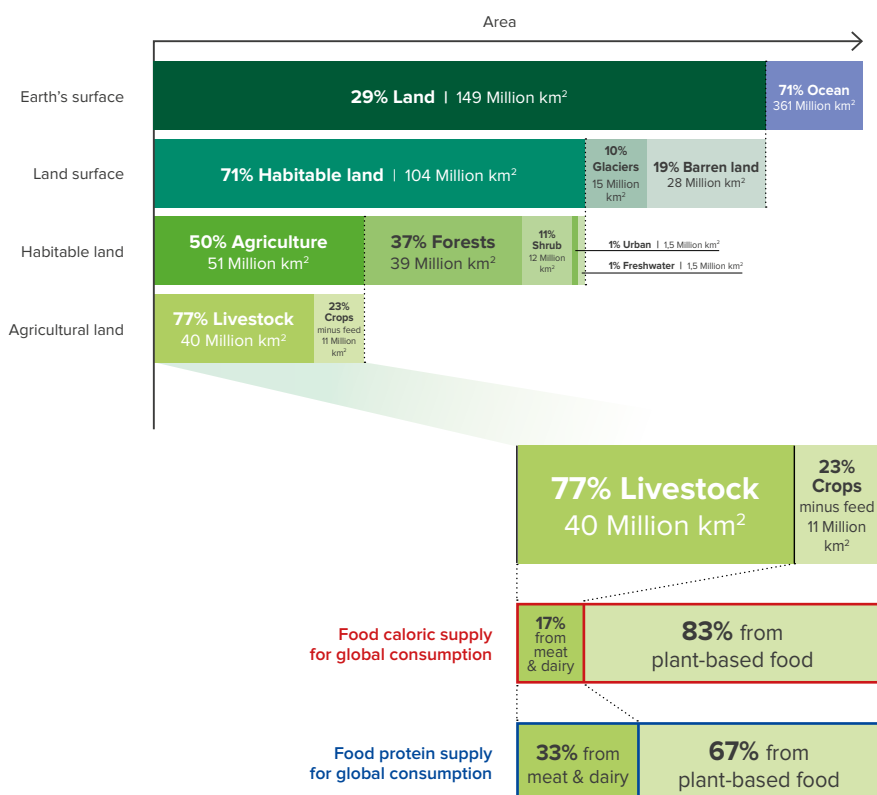
GREENHOUSE GAS EMISSIONS - Our food system is estimated to contribute approximately **19-29% of global human made Global Greenhouse Gas emissions (GHGs)**.⁵ Livestock contribute 14.5% of GHGs and significant quantities of land would be released by moving towards more plant-based diets leading to significant reductions in GHGs.⁶

BIODIVERSITY - Nature is declining globally at rates unprecedented in human history, with over 1 million species threatened with extinction. One estimate suggests **30% of global biodiversity loss is linked to intensive livestock production**. Feed imported into Europe is a significant driver of land-use change and deforestation. 80% of Europe's crops depend on pollinating insects and yet, due to excessive pesticide use and intensive farming practices these are declining at unprecedented rates, threatening our future food security.

NATURAL RESOURCES - Today, the world population uses approximately 50% of total habitable land for agriculture. 77% of this agricultural land is used to raise livestock through a combination of grazing land and land used for animal feed production. Despite being dominant in land allocation for agriculture, meat and dairy products supply only 17% of global caloric supply and only 33% of global protein supply. The remaining 23% of agricultural land is used to grow crops for human consumption (supplying 83% of our calories).⁷ **By 2050, global consumption of meat and dairy is expected to have risen by 76% putting even more pressure on limited land resources.**

FOOD WASTE - In the EU around **20% of food produced is wasted somewhere across the value chain** - around 88 million tonnes of food waste are generated annually with associated costs estimated at 143 billion Euros.⁸

Global surface area allocation for food production



What is a sustainable diet?

A sustainable diet is a dietary pattern that provides us with the many nutrients we need for health, in appropriate amounts, and that is culturally acceptable, affordable and sustainable.

There is an increasingly body of robust evidence, as highlighted within our [scientific update](#) to suggest that **dietary patterns, focussed on a greater proportion of plants within diets can improve health outcomes and, have lower environmental impacts.** In the past decade, more and more countries have started to incorporate sustainability considerations into their food policies and consumer education programmes.

Many people don't realise that **there is an 80% overlap between healthy and sustainable diets.** If everyone would be eating according to national guidelines for a healthy nutrition, such would not just benefit their health, but sustainability, as well. Apart from leading to obesity and associated health problems, in fact, overconsumption wastes more food and natural resources than household discards.¹⁰

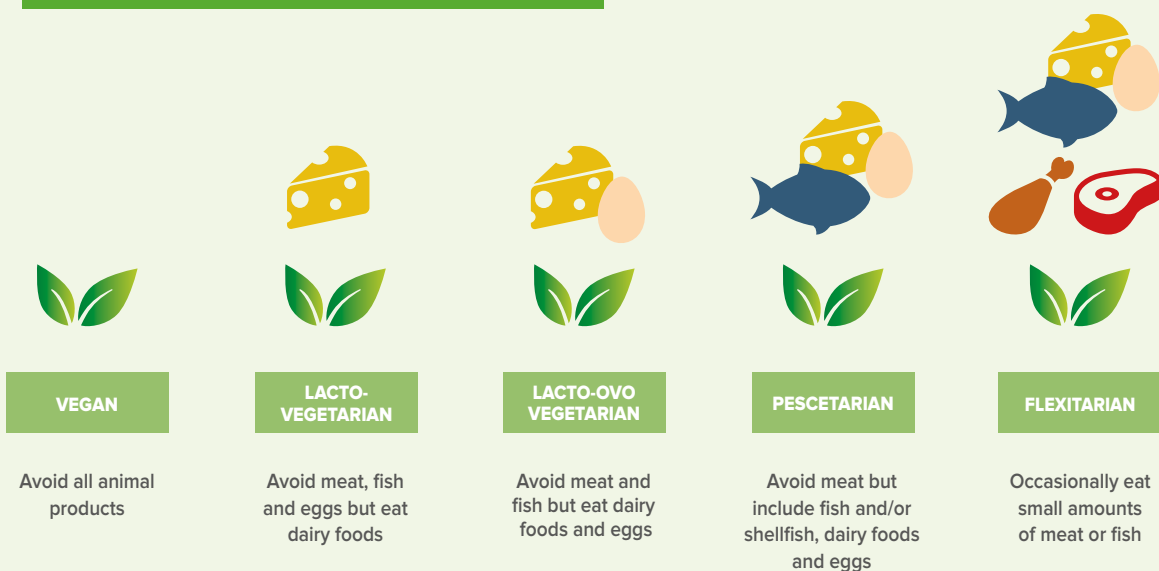


Sustainable Nutrition: Its vital to grow food sustainably and ensure we consume healthy, nutritious and sustainable diets if we are to improve our own health and the health of the planet.⁹

What is plant-based eating?

There are different forms of **plant-based eating**, from vegan over vegetarian to flexitarian-type diets. Plant-based eating does not necessarily exclude all animal products. In a plant-based diet, plant-based foods such as fruits, vegetables, legumes, wholegrains, nuts, seeds, fungi, vegetable oils and plant-based alternatives to meat and dairy are at the core of the diet.

SPECTRUM OF PLANT-BASED EATING



What can citizens do?

In practical terms you can choose to eat foods that are essential to a healthy and sustainable diet. This includes:



Further Information

For further information on the science behind plant based eating please see our more detailed paper:
More plant-based eating for the planet

alpro Foundation
Knowledge in plant-based nutrition

REFERENCES:

1. https://ec.europa.eu/eurostat/statistics-explained/index.php/Overweight_and_obesity_-_BMI_statistics
2. IHME, 2016. Global Burden of Disease. <https://vizhub.healthdata.org/gbd-compare/>
3. Willett et al. (2019). Food in the Anthropocene: the EAT–Lancet Commission on healthy diets from sustainable food systems. [https://www.thelancet.com/journals/lanplh/article/PIIS0140-6736\(18\)31788-4/fulltext](https://www.thelancet.com/journals/lanplh/article/PIIS0140-6736(18)31788-4/fulltext)
4. <https://globalnutritionreport.org/reports/global-nutrition-report-2018/>
5. Climate Change and Food Systems Sonja J. Vermeulen, Bruce M. Campbell, John S.I. Ingram
Annual Review of Environment and Resources 2012 37:1, 195-222 (2016) <https://www.annualreviews.org/doi/full/10.1146/annurev-environ-020411-130608>
6. [https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196\(18\)30206-7/fulltext](https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196(18)30206-7/fulltext)
7. <https://ourworldindata.org/yields-and-land-use-in-agriculture>
8. <http://www.eu-fusions.org/phocadownload/Publications/Estimates%20of%20European%20food%20waste%20levels.pdf>
9. <https://tastingthefuture.com/2018/09/07/sustainable-nutrition-rethinking-sustainability/>
10. Alexander et al. 2017, Losses, inefficiencies and waste in the global food system. Agricultural Systems 153, 190-200.

