

SAVE OUR PLANET AND IMPROVE HEALTH OF BILLIONS

Food is the single strongest lever to optimize human health and environmental sustainability on earth. However, food is currently threatening both people and planet. An immense challenge facing humanity is to provide a growing world population with healthy diets from sustainable food systems. While global food production of calories has generally kept pace with population growth, more than 820 million people still lack sufficient food, and many more consume either low-quality diets or too much food. Unhealthy diets now pose a greater risk to morbidity and mortality than unsafe sex, alcohol, drug, and tobacco use combined. Global food production threatens climate stability and ecosystem resilience and constitutes the single largest driver of environmental degradation and transgression of planetary boundaries. Taken together the outcome is dire. **A radical transformation of the global food system is urgently needed.** Without action, the world risks failing to meet the UN Sustainable Development Goals (SDGs) and the Paris Agreement, and today's children will inherit a planet that is severely degraded and where much of the population will increasingly suffer from malnutrition and preventable disease.

There is substantial scientific evidence that links **diets with human health and environmental sustainability**. Yet the absence of globally agreed scientific targets for healthy diets and sustainable food production has hindered large-scale and coordinated efforts to transform the global food system. To address this critical need, the EAT-Lancet Commission convened 37 leading scientists from 16 countries in various disciplines, including human health, agriculture, political sciences, and environmental sustainability, to develop global scientific targets for healthy diets and sustainable food production. This is the first attempt to set universal scientific targets for the food system that apply to all people and the planet.

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The Commission focuses on two “end-points” of the global food system: final consumption (healthy diets) and production (sustainable food production, see Figure 1). These factors disproportionately impact human health and environmental sustainability. The Commission acknowledges that food systems have environmental impacts along the entire supply chain from production to processing and retail, and reach beyond human and environmental health by also affecting society, culture, economy, and animal health and welfare. However, given the breadth and depth of each of these topics, it was necessary to place many important issues outside the scope of the Commission.



Figure 1. An integrated agenda for food in the Anthropocene recognizes that food forms an inextricable link between human health and environmental sustainability. The global food system must operate within boundaries for human health and food production to ensure healthy diets from sustainable food systems for nearly 10 billion people by 2050.

To achieve planetary health diets for nearly 10 billion people by 2050.

A large body of work has emerged on the environmental impacts of various diets, with most studies concluding that **a diet rich in plant-based foods and with fewer animal source foods confers both improved health and environmental benefits**. Overall, the literature indicates that such diets are “win-win” in that they are good for both people and planet. However, there is still no global consensus on what constitutes healthy diets and sustainable food production and **whether planetary health diets* may be achieved for a global population of 10 billion people by 2050**.

By assessing the existing scientific evidence, the Commission developed global scientific targets for healthy diets and sustainable food production and integrated these universal scientific targets into a

common framework, the **safe operating space for food systems**, so that planetary health diets (both healthy and environmentally sustainable) could be identified. This safe operating space is defined by scientific targets for intakes of specific food groups (e.g. 100 to 300 g/day of fruit) to optimize human health and scientific targets for sustainable food production to ensure a stable Earth system (see Figure 2).

The boundaries of the safe operating space are placed at the lower end of the scientific uncertainty range, establishing a “safe space” which, if transgressed, would push humanity into an uncertain zone of rising risks. Operating outside this space for any earth system process (e.g. high rates of biodiversity loss) or food group (e.g. insufficient vegetable intake) increases the risk of harm to the stability of the earth system and human health. When viewed together as an integrated health and sustainability agenda, the scientific targets that define a safe operating space for food systems allow the evaluation of which diets and food production practices together will enable achievement of the SDGs and the Paris Agreement.

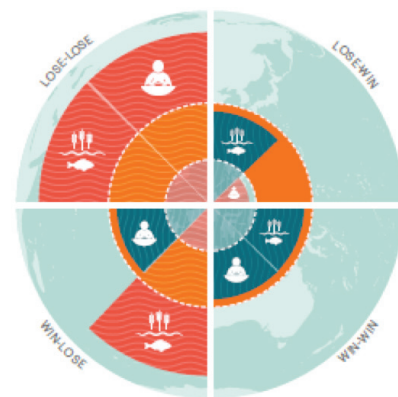


Figure 2. Scientific targets define the safe operating space for food systems and are represented here by the orange ring. The wedges represent either dietary patterns or food production, and together they reflect various dietary patterns that may or may not meet scientific targets for human health and environmental sustainability, i.e., outside of the safe operating space. These dietary patterns can be “healthy and unsustainable” (win-lose), “unhealthy and sustainable” (lose-win), “unhealthy and unsustainable” (lose-lose) and “healthy and sustainable” (win-win).

*Planetary health refers to the “the health of human civilization and the state of the natural systems on which it depends”. This concept was put forth in 2015 by the Rockefeller Foundation-Lancet Commission on planetary health to transform the field of public health, which has traditionally focused on the health of human populations without considering natural systems. The EAT-Lancet Commission builds upon the concept of planetary health and puts forth the new term “planetary health diet” to highlight the critical role that diets play in linking human health and environmental sustainability and the need to integrate these often-separate agendas into a common global agenda for food system transformation to achieve the SDGs and Paris Agreement.

Conclusion

The global adoption of healthy diets from sustainable food systems would safeguard our planet and improve the health of billions. How food is produced, what is consumed, and how much is lost or wasted all heavily shape the health of both people and planet. The EAT-Lancet Commission presents an integrated global framework and for the first time, provides quantitative scientific targets for healthy diets and sustainable food production. The Commission shows that feeding 10 billion people a healthy diet within safe planetary boundaries for food production by 2050 is both possible and necessary.

The data are both sufficient and strong enough to warrant immediate action. It also demonstrates that the universal adoption of a planetary health diet would help avoid severe environmental degradation and prevent approximately 11 million human deaths annually. However, to safeguard the natural systems and processes that humanity depends on and that ultimately determine the stability of the Earth system will require no less than a Great Food Transformation. The Commission calls for widespread multi-sector, multi-level action including: a substantial global shift toward healthy dietary patterns; large reductions in food loss and waste; and major improvements in food production practices. The data are both sufficient and strong enough to warrant immediate action.

Food will be a defining issue of the 21st century. Unlocking its potential will catalyse the achievement of both the SDGs and Paris Agreement. Food will be a defining issue of the 21st century. Unlocking its potential will catalyse the achievement of both the SDGs and Paris Agreement. An unprecedented opportunity exists to develop food systems as a common thread between many international, national, and business policy frameworks aiming for improved human health and environmental sustainability. Establishing clear, scientific targets to guide food system transformation is an important step in realizing this opportunity.

Note: The information here was drawn from the Summary Report of the EAT-Lancet Commission Food in The Anthropocene: The EAT-Lancet Commission on Healthy Diets from Sustainable Food Systems. The entire Commission can be found at <https://www.thelancet.com/commissions/EAT>.

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FIVE STRATEGIES FOR A GREAT FOOD TRANSFORMATION

- # 1. Seek international and national commitment to shift toward healthy diets.
- # 2. Reorient agricultural priorities from producing high quantities of food to producing healthy food.
- # 3. Sustainably intensify food production to increase high-quality output
- # 4. Strong and coordinated governance of land and oceans
- # 5. At least halve food losses and waste, in line with UN Sustainable Development Goals