



Food System Transformation: A sustainable and healthy nature-based solution

Context and background

Transforming food systems to provide sustainable and healthy foods in alignment with the planetary boundaries, is essential for the future of our planet and humanity. With consensus on the scientific targets for healthy diets and sustainable food production that has emerged from the EAT-Lancet report, we have clear guidance on how to produce food that is good for people and planet.

The global food system exerts enormous environmental pressures accounting for around 30% of GHG emissions, over 70% of freshwater withdrawals, and 40% of land use. It is also the principal driver of deforestation and biodiversity loss. By 2050, global red meat demand is expected to rise by 76%, a trend that will make it impossible to achieve the 1.5°C Paris Agreement target. Beyond red meat, food production needs to transform from a major CO₂ emitter to a major carbon sink to achieve the Paris Agreement (see Figure 1).

Unsustainable and unhealthy diets also present major threats to human health worldwide. Governments around the world face rapidly increasing public health costs due to poor nutrition. One in nine people (approximately 821 million) are hungry with children among the most vulnerable.

To date, limited attention has been given to food systems as an arena for climate action. Herein lies a critical opportunity to combat climate change while improving human health and reducing economic and social costs associated with disease and poor health. A global shift to healthy diets will not only save lives, it will also reduce land use pressure from food production, thereby opening up opportunities for reforestation and afforestation and reducing CO₂ emissions by nearly 37%. A transformation of the global food system has the potential to sequester nearly 10 Gt of CO₂ by 2100 which is fundamental to achieving the Paris Agreement.

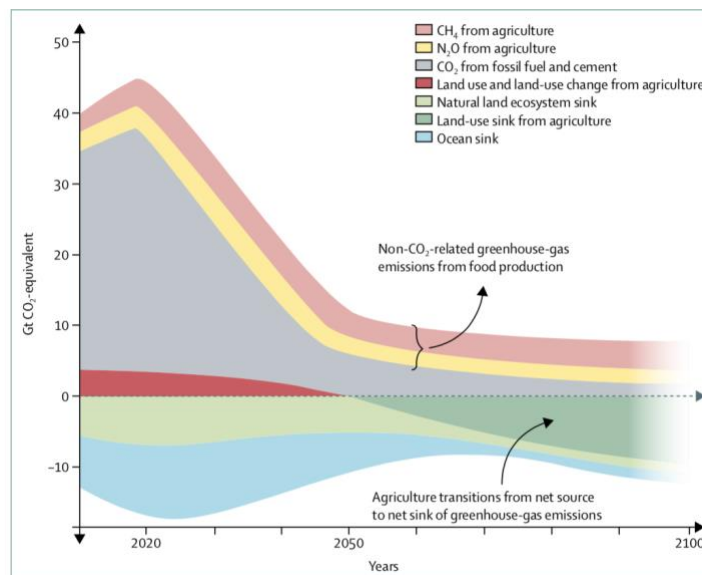


Figure 1: Projections of global emissions to keep global warming to well below 2°C, aiming for 1.5°C

Data are from Intergovernmental Panel on Climate Change fifth assessment report (RCP2.6 data for nitrous oxide and methane) and Rockström and colleagues* (for fossil-fuel emissions, land use, land-use change, and forestry and biosphere carbon sinks)

*Rockström J, Gaffney O, Rogelj J, Meinshausen M, Nakicenovic N, Schellnhuber HJ. A roadmap for rapid decarbonization. *Science* 2017; 355: 1269–71.

An overview of the contribution

The EAT-Lancet Commission on Food, Planet, Health has for the first time set global scientific targets for healthy diets and sustainable food production making the transformation of the global food system

not only possible but also an essential ingredient of a nature-based solution to combatting climate change.

The organizations behind this contribution commit to taking action within national and subnational jurisdictions as well as in business strategies and practices to address two key drivers of climate change and malnutrition in our food systems:

- **Food production.** Identify the most strategic opportunities for change in food production practices to (a) turn agriculture into a net carbon sink (b) improve food security, (c) improve availability and affordability of healthy and nutritious foods, (d) boost food system resilience to unavoidable climate change, and (e) reduce greenhouse gas emissions associated with agriculture.
- **Unhealthy diets.** Identify the most strategic opportunities for shifting diets towards healthier and more nutritious foods that are healthy for people and planet, based on the best available science and considering a wide range of policy, regulatory and market-based levers across sectors. Such dietary shifts, will reduce critical pressure on land, save lives, and improve wellbeing and economies while, substantially contributing to combatting climate change and other environmental challenges.

How does the contribution leverage living natural systems as a solution to avert climate change?

Given the large impact of the global food system on the environment, our efforts to secure a sustainable food future for humanity must work with, not against, nature. Healthy, living natural systems have the power to feed humanity over the long term, even at higher population levels than today, as long as we produce and consume food in a way that supports thriving natural systems.

How might the contribution support both climate, mitigation and adaptation as well as other important co-benefits and social, economic and environmental outcomes in coming years?

The EAT Lancet Commission estimated that changes in food production practices could reduce agricultural GHG emissions from 18 to 22% from 2050 baseline levels whereas increased consumption of plant-based foods could reduce emissions by 96% from 2050 baseline levels. A further 12% reduction could be achieved by halving food loss and waste. In addition, sustainable food system transformation will sharply reduce the rate of species extinction and enhance biodiversity.

Where can the contribution be put into action?

The contribution can be put into action at the national level by translating the EAT-Lancet scientific targets into national targets for healthy diets from sustainable food systems and land use planning. Those targets should be embedded at a later stage into national policies and dietary guidelines accounting for cultural preferences as well as nutritional and environmental challenges. The findings of the EAT-Lancet Commission can also be translated into local-level targets and actions, including in areas that municipal governments can generally control such as public procurement. The private sector can also transform their practices to make healthy and sustainably produced foods more readily available.

Adopting a multi-sectoral global approach will align efforts towards healthy diets from sustainable food systems that both mitigate climate change and respond to its pressures. This approach will require new partnerships that span all levels of governance and include representation from a broad range of actors. Coordinated efforts can facilitate the establishment of national food system strategies and initiatives with attainable targets.

How will the contribution be delivered? How will different stakeholders be engaged in its implementation? What are the potential transformational impacts?

The contribution will be delivered by influential governments, cities, and businesses taking the lead in incorporating healthy diets and sustainable food production practices into their strategies, policies, and activities. A shift to healthy and sustainable diets requires input and commitments from a spectrum of decisionmakers representing national and local governments, the private sector and science community, and multiple stakeholders.

Is this initiative contributing to other Climate Action Summit workstreams?

Yes, cities and local action, industry transition, social and political drivers, youth engagement and public mobilization, mitigation strategy

How does this contribution build upon examples of experience to date? How does the contribution link with different ongoing initiatives?

The EAT-C40 Food Systems Network, a global network of 40+ cities working to reduce carbon emissions, increase resiliency, and improve health outcomes through food system interventions, demonstrates the potential of local-level action. Examples include using public procurement to increase the percentage of organic food in the city, reducing meat served in public schools and public canteens, and increasing access to and affordability of healthy and sustainable options.

Food and Land-Use Coalition, a self-governing collation of organizations established to transform the global food and land use systems, demonstrates an example of a national-level action. It works to transform food and land use systems worldwide by connecting stakeholders and identifying solutions for system transformation.

What are the means of stewardship, metrics for monitoring?

A next step following the publication of the EAT-Lancet report is to translate the global scientific targets for healthy diets and sustainable food production systems into context-appropriate science-based targets (SBTs). There is already momentum with this work in the private sector context and EAT along with a coalition of partners have initiated the establishment of SBTs at the city level. The expertise exists to develop country-specific SBTs as well. These targets have the potential to align closely with national climate strategies and action plans and bringing in the EAT-Lancet scientific evidence base will institute food systems transformation as a key element of climate action.

Which countries and organizations are involved in the contribution?

EAT is in dialogue with several key partners such as C40 and FOLU, and number of governments including the Government of Costa Rica who has already agreed to be part of this contribution.

What is the communication strategy?

EAT communications will amplify the work through combined internal and external channels. Following the unprecedented media coverage of the EAT-Lancet Commission's report, EAT has developed an influential network of reporter relationships we continue to partner with to elevate the science in action that will be a strong tool for elevating the nature-based strategies and outcomes through top tier media to the public. Additionally, EAT's internal channels reach hundreds of thousands of people with EAT-generated content designed to expand awareness and give individuals tools to take new action through nature-based, healthy diets from sustainable food systems, daily practices.

What are the details of proponents (indicating the degree of commitment among the countries and organizations that are named)?

EAT is a global, non-profit startup founded by the Stordalen Foundation, Stockholm Resilience Centre and the Wellcome Trust to catalyze a food system transformation. Its vision is a fair and sustainable global food system for healthy people, animals and planet – leaving no one behind. Further details of potential proponents is still a work in progress.