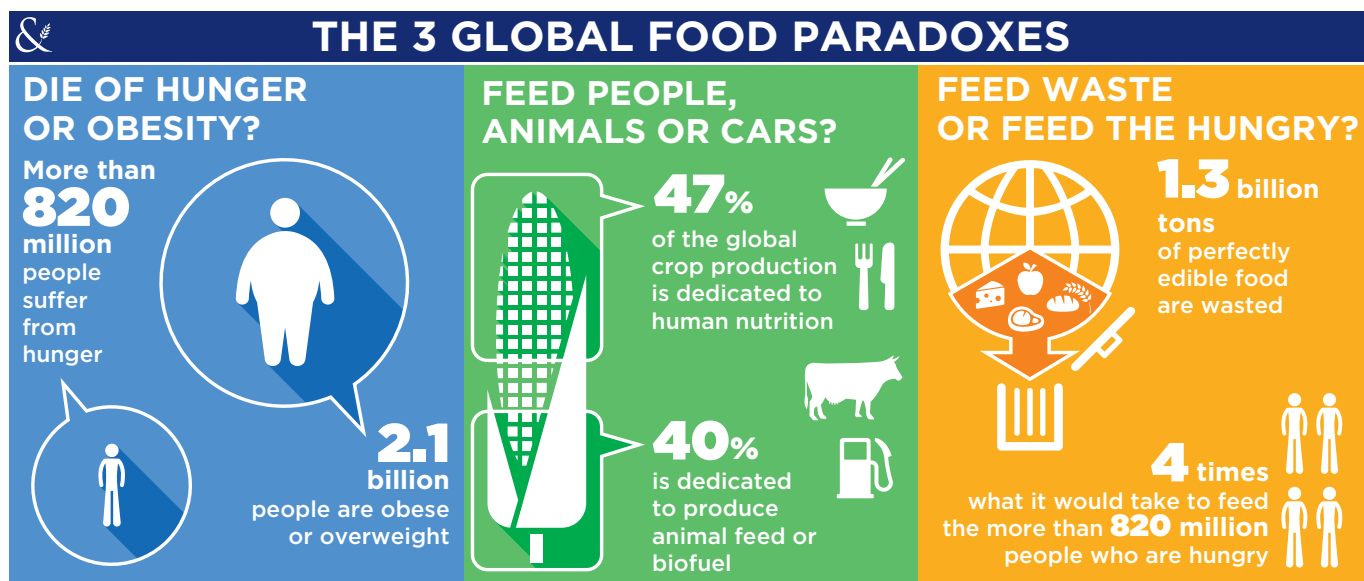




# THE GLOBAL FOOD PARADOXES



**GLOBAL FOOD SYSTEMS ARE POSED WITH THE MULTIFACETED CHALLENGES** of nourishing an increasingly growing and urbanized population, expected to reach 10 billion by 2050, with changing dietary preferences, while tackling the impacts that are posed on natural resources and ecosystems. Three main paradoxes main issues can be identified at the global level.

**The first relates to nutritional challenges.** Malnutrition in all its forms remains unacceptably high, and the world is not on track to achieve the targets it has set itself.<sup>1</sup> No country is exempt from nutritional challenges. More than 820 million people in the world are still hungry, and 2 billion people experience moderate or severe food insecurity. Meanwhile, 2 billion adults worldwide, or two in five adults, are overweight, as well as 40 million children under five. Reinforcing global governance of the world's food systems and improving agricultural, agro-industrial and commercial policies is key to address these issues, to ensure fairer access to nutritious food. Also, strong actions are necessary to promote sustainable and healthy lifestyles and nutritionally balanced diets through education, starting from an early age.

1. <https://globalnutritionreport.org/>

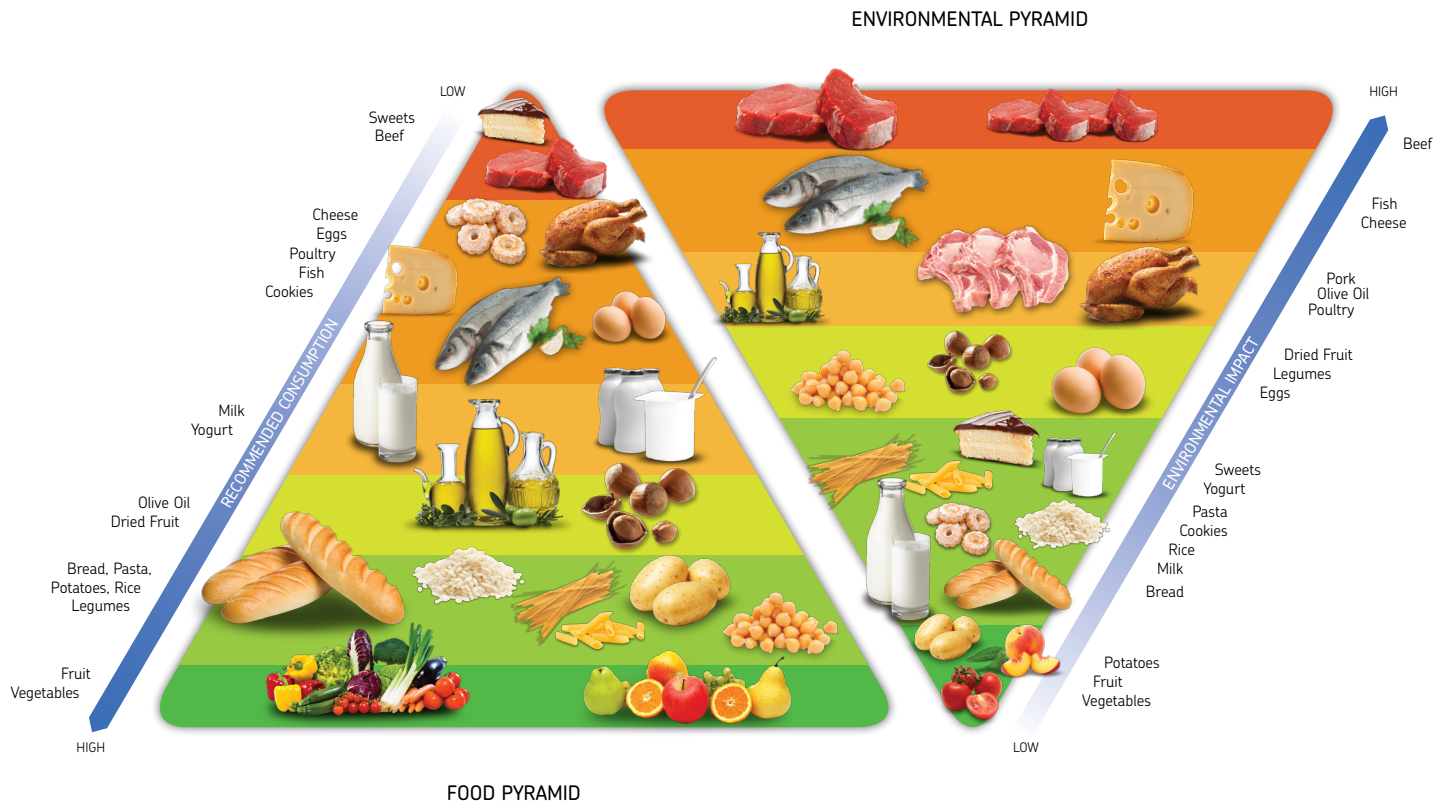
**The second regards agricultural systems.** When it comes to agriculture, there is a paradox concerning the allocation of land and resources for human and animal consumption, as well as the production of biofuels or bioplastics: Less than half of the crop production worldwide is directly used for human consumption, and over 40% of the agricultural land available is used for animal feeds or biofuels. This situation could exacerbate the global food shortage. There is also an increasing demand for water. While 4,000 children die every day because they do not have access to drinking water, 15,000 litres are needed to produce a kilogram of beef. We need to develop policies that promote sustainable forms of agriculture and production, while recognizing the true (social and economic) cost of food.

**The third global challenge relates to food loss and waste.** 1.3 billion tons of edible food is wasted every year, which accounts for a third of global food production and four times the amount needed to feed the 820 million undernourished people around the world. It is an established fact that behind food waste are problems with the way foods are produced and distributed — for example, in industry and large-scale retail, and individual behavioral issues. These issues can be changed by improving individual's awareness about food loss and waste, meal planning, and cooking, and by paying more attention to food storage conditions. Governments should help and encourage NGOs, private sector, and individuals who put forward virtuous practices - such as redistributing expiring food that supermarkets would otherwise throw out among the poorest people and reusing unavoidable food waste under the circular economy perspective — that can reduce food waste and tackle the root causes of this phenomenon. Cooperation and potential long-term agreements among farmers, producers, and distributors of food can help them plan and forecast consumer demand so that production matches the actual needs of the population.

These three global food system challenges can be analyzed on a country level and in the context of change towards sustainable food systems that underpin the achievement of the Sustainable Development Goals (SDGs), set by the 2030 Agenda. The Food Sustainability Index<sup>2</sup> (FSI), is a global study on nutrition, sustainable agriculture and food waste in 67 countries across the world, a benchmarking model for policy makers, media, and the private sector. Based on 37 indicators, and 89 individual metrics, it highlights best practices and key areas for improvement in relation to the SDGs, while exploring the food-health-environment nexus, thus moving away from a traditional silo approach and considering the entire complexity of the food system.

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2. <http://foodsustainability.eiu.com/>



Addressing environmental and nutritional issues requires practical tools to inform and educate citizens on how to eat in a healthy and sustainable way. In the Food and Environmental Double Pyramid (DP) food items are arranged according to their contribution to a healthy diet and their environmental impact. The DP can be traced back to the model known as the Mediterranean Diet, explicitly cited by FAO as an exemplary sustainable diet and internationally recognized as a compass for a healthy diet. The DP clearly shows that the foods with the lowest environmental impact are the same for which nutritionists recommend greater consumption, while those with a higher environmental footprint are those that should be consumed in moderation. The educative intent of the DP unified model is thus to address food behavior change in individuals, that is crucial to improve the status of the environment as well as to improve public health. Last but not least, the Double Pyramid can raise awareness and contribute to promoting sustainable and healthy diets also with reference to the food business.