



Slow Food®

OUR FOOD, OUR HEALTH: A HEALTHY FOOD SYSTEM FOR THE EUROPEAN UNION

POSITION PAPER SUMMARY



2022

Summary of the position paper published in 2021

'Our food, our health. Nourishing biodiversity to heal ourselves and the planet' curated by Eleonora Lano

Curated by

Madeleine Coste, Elena Sandrone

Inputs, texts and editing from

Mai Abbas, Madeleine Coste, Francisca Feiteira, Marta Messa, Serena Milano, Barbara Nappini, Elena Sandrone

Layout

Maurizio Burdese, Mattia Dedominici

Editing

Carla Ranicki

Photos

© Michele Miola, © Alberto Peroli, © Slow Food Archive, © Alessandro Vargiu, © www.wolfganghummer.com

KEY TAKEAWAYS

- ✦ Slow Food defines a healthy diet as one that promotes human health and respects that of the planet, favoring a wide variety of foods of plant origin, whole foods, and minimally processed foods, produced locally using sustainable methods.
- ✦ Human health is intrinsically linked to the health of animals, plants, and the planet. The One Health approach underpins Slow Food's work and should be integrated into all food policies.
- ✦ Among the key factors in unhealthy diets are unsustainable industrial production systems that produce standardized and nutrient-poor foods and food environments that continue to make unhealthy foods more available, accessible, attractive, and affordable than healthy ones.
- ✦ Regulatory action must be taken to improve food environments, with policies to boost the production of safe and healthy food and its availability in public canteens, support the development of short supply chains, ensure labeling and advertisements promote healthy food options and make healthy and sustainable diets affordable to all.
- ✦ Financial and technical support must be provided to food producers to adopt agroecology, an approach which results in safe and healthy foods for consumers by promoting biodiversity, protecting soils, and limiting the use of pesticides and antimicrobials. Agroecological food systems based on agrobiodiversity are resilient and can help fight the climate crisis, one of the main threats to global food security.
- ✦ Biodiversity is essential to the health of people and the planet and must be increased and protected, from the invisible microorganisms naturally present in food and soil to the variety of livestock breeds and edible plant species. Changing our diets can be a powerful way to conserve wild and food biodiversity.
- ✦ Although food choices are greatly shaped by factors outside of individual control, education remains an essential tool in the shift to healthy diets. The value of food must be promoted through taste education, especially at an early age: Slow Food believes that the engine of learning is pleasure, experienced through conviviality and the rediscovery of the five senses.



INTRODUCTION

Our globalized food system is driven by industrialization and the so-called Green Revolution. This becomes clear when walking down any supermarket aisle: the shelves are filled with over-packaged food imported from all over the world and look the same whatever the season. This system has transformed food into a commodity whose value is expressed only by price, with its true costs to our environment and public health completely ignored. When food is seen as a commodity, treated by agrifood businesses as no more than a money-making product, it loses its social, cultural and health meanings, and ethical considerations tend to have no place in production systems.

As a result, our food system is driving the rise of unhealthy diets based on an unsafe food production system. Pesticides and antimicrobial drugs are used liberally, contaminating food with chemicals, and creating antibiotic-resistant microbes. The burden of non-communicable diseases (NCDs) has been increasing for years; they caused 90% of deaths in the European region in 2021. Poor diet, along with tobacco and alcohol use and physical inactivity, is one of the primary behavioral factors associated with NCD mortality. What's more, overweight and obesity are now affecting almost 60% of adults and one in three children in Europe.¹

Today, food environments drive unhealthy choices leading to poor diets. Even when people would prefer to eat well, many barriers can hinder their ability to access and consume a healthy diet, including, the greater availability and promotion of nutritionally poor industrial food in shops and in schools, misleading labeling and advertisements, and price. This problem is particularly critical for lower socio-economic groups.² According to FAO, the high cost of healthy food and persistently high poverty and income inequality keep healthy diets out of reach for about 3 billion people worldwide.³ At the same time, we must never forget that our health is intrinsically tied to the planet's one as this type of food largely comes from production systems that are also highly impactful to the environment.

"One Health" is a holistic approach to food and health that connects humans, animals and the environment. This approach is essential to tackling such a multilayered issue. According to Slow Food, a healthy diet must be nutritionally adequate, promote human health and respect that of the planet. This diet should be enjoyable, because Slow Food believes that good food means tasty, fresh, culturally relevant, stimulating and satisfying to the senses. A healthy diet should also include a rich diversity of foods of plant origin, whole and minimally processed foods, produced locally using sustainable methods that protect soil health and biodiversity, and tackle the climate crisis, antimicrobial resistance and pesticide pollution.

A holistic approach to health lies at the core of Slow Food's vision of producing good, clean and fair food accessible to all. To make this vision a reality, Slow Food advocates for better health and food policies that support everyone's access to healthy and sustainable food. This will be discussed in detail in the following section, with a focus on the European Union.

SHAPING HEALTHY FOOD ENVIRONMENTS THROUGH POLICY ACTION

The industrial agrifood system that feeds us is a direct outcome of decades of agricultural policies focused on delivering productivity at the expense of the environment and citizens' health. Current local, national and international policies continue to drive the rise of unhealthy diets based on unsafe food production accompanied by the dumping of cheap food products, which has negatively affected local food systems. To shift to healthy diets for all, Slow Food advocates for policy to be developed through a food systems approach that considers how food is produced, processed, distributed, marketed and consumed. This approach allows for an integrated food policy beyond agricultural productivity and aligns environmental, health and agricultural goals.

Attempts by governments to improve diets and health have too often focused on increasing awareness about the importance of consuming healthy, safe, local food and promoting “responsible consumer choices.”⁴ Consumers are expected to make the “right” food choices based on little more than information campaigns or prompts to adopt “green” and “healthy” lifestyles. While education about healthy diets is essential, more decisive regulatory action is urgently needed. This “consumer choice” narrative places significant responsibility on citizens while absolving the food industry and regulators. Additionally, it leads to social stigma around being overweight and obese by implying that they result from an unhealthy lifestyle and poor food choices. But even if they have the knowledge and desire to purchase healthy food, many low-income households cannot afford healthy diets. Evidence is clear that daily food choices are not typically based on the best available information but rather constrained and shaped by a range of physical, economic, political and sociocultural influences, most of which are beyond an individual's control.^{5, 6} This highlights the importance of improving food environments, defined as the “physical, economic, political and socio-cultural context in which consumers engage with the food system to make their decisions about acquiring, preparing and consuming food.”⁷

Instead, policymakers must take a “food environments approach” that recognizes that the most effective and equitable way to change food behaviors is to change the structural factors that drive food choices.



HOW CAN POLICY IMPROVE FOOD ENVIRONMENTS TO PROMOTE HEALTHY AND SUSTAINABLE DIETS?



SET SUSTAINABLE STANDARDS FOR FOOD AND IT'S PACKAGING.



INTRODUCE LABELS THAT MAKE HEALTHY AND SUSTAINABLE ALTERNATIVES CLEAR AND ATTRACTIVE.



ENSURE THAT THE FOODS BEST ADVERTISED AND DISTRIBUTED ARE THOSE THAT ARE HEALTHY AND SUSTAINABLE



IMPROVE PUBLIC PROCUREMENT, SO THAT FOOD BOUGHT AND OFFERED IN SCHOOLS AND HOSPITALS IS HEALTHY AND SUSTAINABLE



FOSTER LOCAL INFRASTRUCTURE AND SHORT SUPPLY CHAINS, TO ENSURE EASY ACCESS TO HEALTHY AND SUSTAINABLE FOOD.



ESTABLISH FAIR FOOD PRICES AND ENSURE HEALTHY AND SUSTAINABLE DIETS ARE ACCESSIBLE TO ALL.



CHECK AND IMPROVE INTERNATIONAL TRADE AGREEMENTS, TO ENSURE THE PROMOTION OF SUSTAINABLE FOOD SYSTEMS



Drive the production of safe and healthy food, in Europe and globally

Problem: Food produced and made available to citizens must be healthy and safe. The European Union produces enough food to feed its 447 million citizens, yet poor diet is a leading risk factor for ill health among Europeans, mainly affecting the most vulnerable social groups. Non-communicable diseases, for which unhealthy diets are a significant risk factor, account for 86% of mortality and 77% of the disease burden in the EU.⁸ The Common Agriculture Policy, which heavily influences the availability of healthy food through financial support to farmers, contributes to fostering unhealthy diets by disproportionately supporting the production of animal products rather than the fruit and vegetables of which Europeans eat too little.

The overuse of pesticides and antibiotics in agriculture also has important implications for health. The misuse of antibiotics in animal farming is a major driver of antimicrobial resistance (AMR), responsible for an estimated 33,000 deaths per year in the EU.⁹ Pesticide residues in food, air, soil and groundwater affect rural communities, consumers and especially the farmers who use them; among their many effects, they have been found to increase the risk of cancers and infertility, harm children's healthy development and disrupt our hormonal systems.¹⁰ Every year around the world, more than 385 million people are estimated to suffer from pesticide poisoning, including both agricultural workers and the general population.¹¹ Although EU regulations and legislation regarding pesticides aim to ensure "a high level of protection of human and animal health and the environment"¹² based on the "precautionary principle" enshrined in EU law, many unsafe pesticides continue to be authorized for use in the EU. This is compounded by the fact that the budget allocated to organic farming in the EU is small, accounting for only 3% of EU agricultural spending in 2018.¹³ There is also incoherence between the EU's domestic and trade policies, as the EU continues to export many highly toxic pesticides to low- and middle-income countries, even though they may be banned for use in the EU.¹⁴

Solution: Solution: Governments must ensure that food is produced safely by controlling pesticide and antimicrobial drug use. This requires introducing a binding EU target to reduce the use of synthetic pesticides by at least 50% by 2030 and supporting farmers both technically and financially to adopt integrated pest management (IPM) and prioritize agroecological practices, such as using crop rotation and intercropping to keep pests and diseases at bay before considering mechanical or chemical means.

To foster healthy diets, an integrated food policy is needed to orient the CAP subsidies to support the production of safe, healthy, and sustainable food, in line with the One Health approach. Slow Food and the Food Policy Coalition are advocating for a holistic Common Food Policy to increase coherence between agricultural, health, environmental, animal welfare, social and trade policies.¹⁵

European citizens call for a transition to bee-friendly food systems



"Save bees and farmers" European Citizens Initiative, received by the European Commission in November 2022

European citizens have voiced their deep concerns with the continued use of dangerous pesticides. In 2021, the European Citizens Initiative (ECI) "Save Bees and Farmers," a campaign that Slow Food helped steer, successfully reached the goal of collecting 1.1 million signatures calling for a pesticide-free Europe by 2035.⁶² This ECI comes only a few years after another successful ECI calling for a ban on glyphosate and the reform of the pesticide approval process. That campaign reached the threshold of 1 million signatures in 2017, which led to the revision of the EU's General Food Law Regulation to increase transparency around food toxicity data.



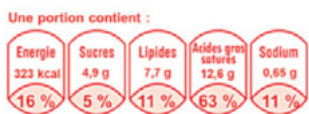
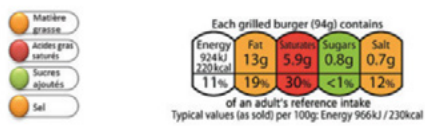
Regulate food advertising and increase transparency to make healthy and sustainable alternatives clear and attractive

Problem: How foods are marketed and labeled deeply influences what people buy and eat, their dietary patterns and, consequently, their health. Currently, advertisements and marketing overwhelmingly push consumers to purchase ultra-processed foods. Despite mandatory nutritional information on the back of food packaging, it remains difficult for citizens to understand how healthy a product is, especially as they are often pressed for time when shopping for food. Front-of-package health and nutrition claims such as "good for your heart," "low in fat" or "high in fiber" are often abused by the food industry, misleading consumers about the quality of their food. Foods bearing such claims often have high levels of fat, sugar or salt, which may be masked by the use of a nutrition or health claim on the label. When taking public transport, walking down the street, or watching television or videos online, we are constantly bombarded by advertisements for ultra-processed unhealthy foods.



Examples of health and nutrition claims

Solution: An essential element of enabling food environments is to make healthy and sustainable food clearly identifiable and attractive to citizens. Firstly, the EU needs to strictly restrict advertising on processed foods high in fat and sugar. Secondly, it must establish nutrient profiles to ensure unhealthy foods cannot bear misleading health or nutrition claims. Finally, more transparency is needed in food labeling, so that consumers can make informed choices not only about the nutritional content of food but also how and where it was produced. Front-of-pack nutrition labeling graphically displays nutritional information in an immediate way so that consumers can see it, read it, interpret it and act upon it. Various front-of-pack nutrition labels exist around the world, and they can help consumers make easier choices, but by aiming to simplify nutritional information, they cannot offer a deep understanding of the complex links between food and health. Many of these labels tend to classify food as “healthy” or “unhealthy,” which can be a dangerous simplification; food quality, portion sizes and diet diversity are all important factors that should be considered when qualifying the healthiness of food.¹⁶

NUTRIENT-SPECIFIC LABELS	SUMMARY LABELS
<i>Examples of front-of-pack nutrition labels in use worldwide</i> Table adapted from Julia C. Hercberg S. (2017). <i>Development of a new front-of-pack nutrition label in France: the five-colour Nutri-Score</i> NUMERIC  COLOUR-CODED (TRAFFIC LIGHTS)  WARNIG SYMBOL 	SIMPLE  GRADED 5-colour nutrition label/NutriScore  NuVal  SENS  Health Star Rating 

The narrative label project

The narrative label supplements mandatory food labeling by providing additional information about varieties and breeds, cultivation and processing methods, place of origin, animal welfare, storage, and use. By Slow Food's definition, food quality is a complex concept that starts from the food's place of origin. By adding extensive additional information, consumers can gain a more robust understanding of the actual quality of a product.



Grain producers
Hans Unterguggenberger, Tschelttsch
Mario Lugger, Moos
Johann Stabenheimer, Klebas
Josef Unterguggenberger, Niedergail
Andrea Untergruggenberger, Strajach-Graben
Lexer water stone mill, Strajach-Graben

Bread bakers
Jakoberhof - Sieglinde Ortner, Tschelttsch
Untermoserhof - Katharina Unterguggenberger, Klebas
Peintnerhof - Theresia Lugger, Moos
Lechnerhof - Andrea Unterguggenberger, Tschelttsch
Joehrerhof - Maria Lexer, Strajach
Hausmaierhof - Maria Strieder, Stenzen
Jörglahof - Maria Niko - Nikolaus Lanner, Obergail
Gashof Wander-Niko - Nikolaus Lanner, Obergail
Hotel Turmbad, Eva and Egon Oberluggauer,
St. Lorenzen

www.lesachtalerbrot.com

Product
Lesachtal Bread is a daily sourdough bread made from a mixture of rye and wheat flour. The typical crumb presents large pores and is light, compact, and humid. Before baking, the loaves are lightly drizzled with lukewarm water to ensure that the crust is crispy but not rock hard. The spicy and earthy smells of Lesachtal bread evoke a warm parlor with a wood stove and, at the same time, a beautiful cornfield.

Territory
The Lesachtal valley is located in the southwest of Carinthia, Austria, right on the border with Italy. The farms and fields of the Lesachtaler Bergbauernfamilien lie on hillside terraces up to 1,427 meters above sea level, in the "Valley of the Hundred Mills." Traveling to markets and cities was difficult until the middle of the 20th century, and almost impossible in winter. Self-sufficiency was vital, especially when it came to making flour, so the tradition of cultivating grain (especially wheat and rye) for bread persisted. The presence of many water-powered stone mills testifies to this long tradition.

Raw Materials
The basic ingredients for Lesachtal Bread are rye and wheat flours made from ancient local varieties such as "Carinthia early" wheat and Upper Carinthia winter rye. The Presidium farmers cultivate the cereals according to organic guidelines: no seed dressing, no artificial nitrogen fertilization, and no chemical pest control. The bread is made with the bakers' own sourdough, which is based on local flours, water from the local mountain springs above 1,200 meters, salt, and some local spices like fennel and caraway.

Processing
The entire process of making Lesachtal Bread, from farming and threshing the grain to baking the bread, takes place in the "Valley of the Hundred Mills." The grain is ground in the traditional water-powered mills and also in conventional stone mills. After the dough is prepared, it is left to rest and then formed into loaves and baked in the in-house wood or electric stone ovens at 220 °C for about an hour. The baked bread is then placed on a wooden board for cooling.

Slow Food Presidium
Lesachtal Bread
BROT

Slow Food Presidia are local projects that work to protect small-scale producers and safeguard quality artisanal products.
The Slow Food Foundation for Biodiversity promotes and coordinates 500 Presidia in the world.
www.slowfoodfoundation.org
www.slowfood.com



Improve public procurement, so that food available in public canteens is healthy and sustainable

Problem: Public food procurement policies are vital to enhancing food environments by increasing the healthy food choices provided in schools, healthcare facilities, prisons and other public institutions. They influence a large proportion of what people eat daily and the whole food supply chain around those meals.¹⁷ Currently, the only tool developed by the EU to promote more strategic procurement is Green Public Procurement (GPP). This voluntary instrument recommends that Europe's public authorities purchase environmentally friendly goods, services and works, thus contributing to sustainable consumption and production. Though the GPP criteria for food services¹⁸ are a good step forward, they remain limited; the criteria are still voluntary, and their scope is narrow, barely considering the importance of local food production, healthy and balanced diets and the need to shift towards more plant-based meals.

Solution: Sustainable food procurement can foster a systemic transformation of our food system, contribute to achieving the targets set by the EU Farm to Fork Strategy and support the implementation of the Sustainable Development Goals. By reorienting public procurement policies to prioritize healthy and sustainable food, local authorities can promote equal access to healthy diets in the community.¹⁹ Slow Food, together with the EU Food Policy Coalition, is advocating for the establishment of minimum mandatory and optional criteria for European public canteens on healthy food, organic and agroecological products, support for small-scale farmers, climate action, labor rights, fair trade, and animal welfare standards.²⁰

By establishing minimum criteria, public procurement can support small-scale local producers, strengthening the local food economy.²¹ Strategic public procurement can also bring benefits to a wide range of sustainability and social aspects such as climate protection, promotion of fair working conditions, improved animal welfare and the circular economy, therefore stimulating the production and consumption of food that is healthy for both people and the planet.²² Evidence also shows that public procurement has an educational role, especially in schools, and promoting a healthy diet at a young age has long-term benefits on children's health.²³



Success story: Mouans-Sartoux and its 100% organic school meals

Since 2012, all the food served in the school canteens in the French town of Mouans-Sartoux has been organic. To achieve this goal, the municipality implemented a multi-pronged strategy that included setting up an organic municipal farm which provides 85% of the vegetables used in school canteens, tackling food waste, and organizing educational activities for students, including nutrition classes, gardening, cooking and meetings with producers. The town also modified its public procurement policies to allow local farmers to supply school canteens. This strategy allowed a reduction in the price of school meals even though they were being prepared with fully organic produce. The costs of organic food were offset thanks to communal management of the canteens, the partial substitution of animal products with vegetable proteins and the reduction of food waste by 80%. The project led to diverse positive spillover effects for families and the wider community. Thanks to the messages that children learned at school, families became more aware of their food choices, which led to a preference for a more local, healthy, and organic diet with less wasted food. Moreover, the local economy was also positively impacted: Bakers began choosing to bake organic bread, wholesalers could work more with local suppliers and local food producers visited schools and shared their knowledge with the children.⁶³





Strengthen local infrastructure and short supply chains to ensure easy access to healthy and sustainable food

Problem: Over the last 60 years, government strategies to boost access to food have translated into the expansion of the global food market and the spread of large-scale, mass distribution channels like supermarkets. In the short term, this path has responded to the growing demand of a growing population, ensuring the low cost of goods thanks to economies of scale. This model, however, has shown itself to be unsustainable, and has contributed to the increased consumption of ready-to-eat and processed, packaged food products.²⁴ The emergence of supermarkets and megastores has also contributed to the disappearance of local markets and small retailers, widening the gap between food producers and consumers.

Solution: Local markets and short supply chains can play an important role in ensuring the population has access to fresh, nutritious foods. At the same time, they can also improve the local economy and make it more stable thanks to the diversification of production and supply. By eliminating intermediaries, the products can be sold at competitive prices that are advantageous for consumers and profitable for producers. Local food supply chains are often considered more sustainable²⁵ due to the involvement of small-scale, multi-functional and often organic forms of agriculture, which reduce emissions and externalities caused by the long distances traveled by conventionally distributed food. In the literature on alternative food systems, farmers' markets are also explored for the opportunities they offer for networking, exchanging knowledge and constructing social and relational capital,²⁶ as well as their economic benefits²⁷ and the profiles and needs of visitors.²⁸ Finally, strengthening short supply chains also means making a strong contribution to achieving the 2030 Agenda Sustainable Development Goals, as they promote the responsible production and consumption of food, help to alleviate poverty, encourage gender equality, combat climate change and make cities more inclusive, resilient and sustainable.²⁹

Slow Food Earth Markets

Slow Food's Earth Market project was started in 2004 and today encompasses over 75 farmers' markets in 25 countries across all continents. The project has recently started to become more of an international network, in line with the movement's values, communicating its campaigns and its vision for the future. Joining the project means a market must facilitate and develop initiatives to protect biodiversity and participate in fundraising activities every year to support Slow Food's projects and campaigns. Slow Food Earth Markets operate autonomously and have a range of formats and strategies. Some are outdoor urban markets in the heart of a city, others are neighborhood markets, some are covered, and some are itinerant.

The project reflects places and people with different cultures, all united by a common vision and guided by a series of key objectives:

- ✦ Making accessible local, seasonal products with a short supply chain, produced with respect for the environment and workers' rights.
- ✦ Creating marketing opportunities for small-scale producers who are often excluded from conventional sales channels.
- ✦ Promoting dialog between producers and consumers.
- ✦ Becoming places for exchanging skills, passing on knowledge, educating about a healthy diet and taste and training consumers to be more aware about the food system; places where a sense of community can develop.





Establish fair food prices and ensure healthy and sustainable diets are accessible to all

Problem: The market price of a food rarely reflects that food's true cost to society (including environmental and health impacts associated with food production and consumption as well as allowing for a fair payment to workers in the food sector). Food is around a third cheaper than it would be if social and environmental externalities were included in the price. Meanwhile, the benefits of healthy foods are often disregarded, contributing to healthier diets being less affordable to consumers than unsustainable and unhealthy ones.³⁰ This means that ultra-processed, unhealthy foods are usually more affordable than healthy options, and for many households, a healthy and sustainable diet remains unaffordable.

Solution: For food environments to promote healthy and sustainable diets, it is crucial for food prices to send the right signals to consumers. The EU must move towards a system of "true-cost accounting" so that both negative and positive externalities of food are reflected in its price. A 2020 Eurobarometer found that 81% of Europeans agree that food prices should reflect the costs for society including environmental and health impacts associated with food consumption.³¹ The CAP budget must be leveraged to support the increased production of fruit and vegetables.

In certain contexts, food taxes can also play a role in reducing the consumption of ultra-processed foods rich in fat and salt. According to the World Health Organization, "fiscal policies that lead to at least a 20% increase in the retail price of sugary drink would result in proportional reductions in consumption of such products."³² Also, food taxes can be a valuable source of revenue for governments, revenue which should be invested in the kind of education, including sensory education from a very young age, that can underpin conscious and healthy choices.

Different countries have applied various types of food taxes (for example, a tax on sugar in foods or a junk food tax) with some encouraging results, depending on the context. Food taxes present a double benefit: People are less inclined to choose a food when its price rises and even less so when an acceptable alternative food is available.³³ This is even more likely for low-income, price-sensitive households and young people whose buying behavior is more flexible,³⁴ thereby contributing to reducing the inequalities in health outcomes. Secondly, taxes can also push food companies to reformulate their products to make them healthier and avoid price rises.³⁵

However, it is even more important to stimulate healthy diets by making healthy food much more accessible through incentives and subsidies.³⁶ Food subsidies can take various forms: vouchers, financial incentives, fruit and vegetable boxes for low-income households and minimum or free Value-Added Tax (VAT) for fruits and vegetables.

Denmark's food tax

In 2011, Denmark introduced a tax on saturated fats that led to a 10 to 15% decrease in consumption of the targeted products. Although later abolished in 2013, the number of deaths attributable to non-communicable diseases was estimated to have decreased by 0.4%.⁶⁴ Hungary also introduced a tax on specific prepacked foods high in salt, sugar, or caffeine (at varying rates), which has been associated with a decrease in their sales of 27%, consistent with a 25 to 35% decrease in consumption.⁶⁵

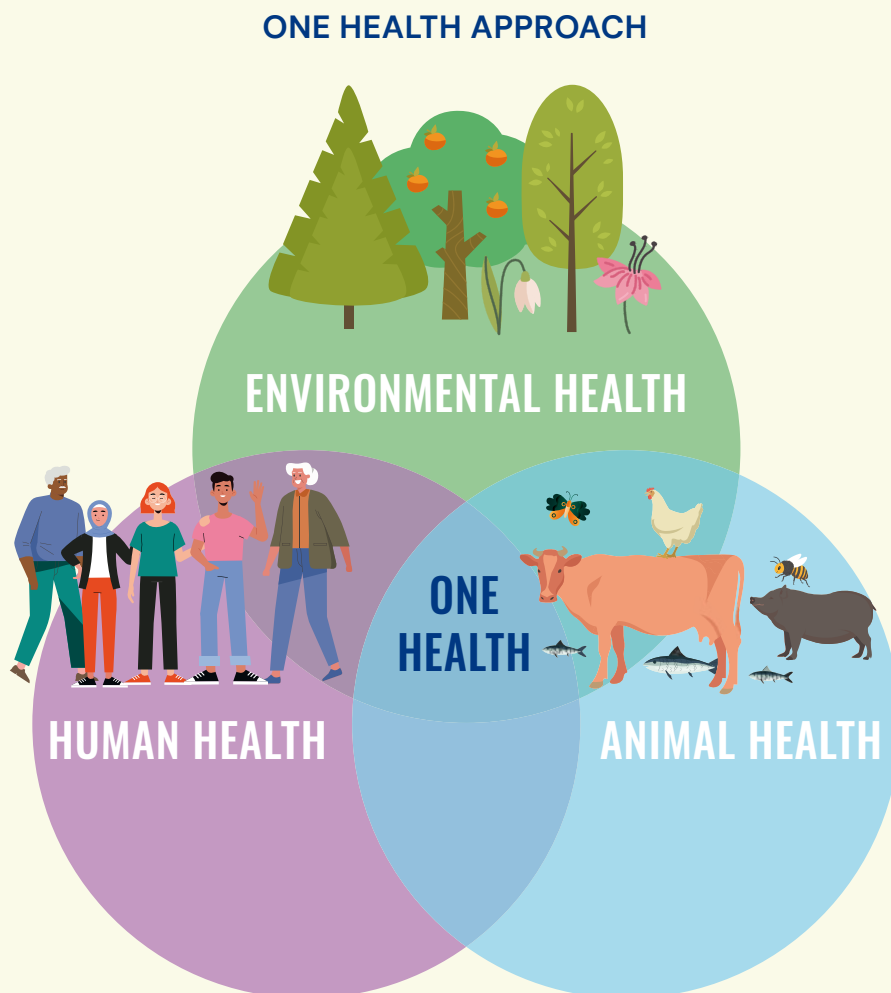
ONE HEALTH: THE INTERCONNECTEDNESS BETWEEN HUMAN, ANIMAL, AND ENVIRONMENTAL HEALTH

Slow Food's mission is to protect and nurture biodiversity, climate and health through food. Given the interconnections that hold these areas together and the social crises we face, it is necessary to develop a holistic approach to health and to promote food that is good and healthy for those who consume it, for those who produce it, and for the Planet. This is why Slow Food supports the One Health approach

The One Health perspective emerged around the turn of the millennium. It takes into consideration human and animal health, as well as the ecological and social environment.

According to FAO:

The health of animals, people, plants and the environment is interconnected. One Health is an integrated approach that recognizes this fundamental relationship and ensures that specialists in multiple sectors work together to tackle health threats to animals, humans, plants and the environment. Maria Helena Semedo, FAO Deputy Director General, believes that ensuring a One Health approach is essential for progress to anticipate, prevent, detect and control diseases that spread between animals and humans, tackle antimicrobial resistance, ensure food safety and prevent environment-related human and animal health threats.³⁷



A shift toward the One Health approach³⁸ is needed to protect future generations and their right to access natural resources and to safeguard animal and environmental health.

Within this new framework, Slow Food wants to clarify its vision of the relationship between health and food, highlighting the extent to which human health, the health of the planet and the health of animals are closely linked and how the defense of biodiversity represents a possible solution to the climate crisis and malnutrition in all its forms (overnutrition, undernutrition and micronutrient deficiencies). The increasing spread of epidemics is associated with decreasing biodiversity, as deforestation, extractive industries (including logging and mining), the introduction of invasive species, urban development and agricultural intensification increase contacts between wildlife, domestic animals and humans, encouraging the spread of zoonotic diseases.³⁹

Slow Food advocates for and works to build sustainable food systems based on cultivating and protecting biodiversity and local food varieties, healthy soils and climate-friendly food production.

The following interconnected challenges in the agrifood system can be addressed by a holistic approach. This is how we can ensure healthy and sustainable diets capable of providing adequate nutrients while not threatening the health of ecosystems.



Sustainable and healthy diets

Problem: Current food trends and the estimated growth of the world population (expected to reach 10 billion by 2050) exacerbate the risks of unsustainable food system practices to human and planetary health. The incidence of non-communicable diseases is expected to worsen, and the effects of food production on greenhouse gas emissions, nitrogen and phosphorus pollution, loss of biodiversity and the exploitation of common goods such as water and soil are expected to increase.⁴⁰ The predicted increase in demand for animal-based protein, in particular, is expected to have a negative environmental impact⁴¹.

Solution: A healthy and sustainable diet is based on the abundant consumption of plant foods, an overall reduction of foods of animal origin and energy from free sugars and fats, a shift to unsaturated fats over saturated and trans fats⁴² and a limited salt intake. It features plenty of unprocessed or minimally processed foods, with few industrially processed products, and involves the purchase and preparation of raw ingredients. Ensuring such a diet for all will require substantial changes in dietary patterns, major reductions in food waste and significant improvements in food production practices (e.g. managing water resources, avoiding land exploitation, minimizing antibiotic use, reducing pollution, maintaining social justice and cutting carbon dioxide and methane emissions).⁴³ This means that the benefits of a healthy, sustainable diet will not only be reflected in human health—such a diet will also positively impact environmental health and the health of domesticated and wild animals. For this reason, Slow Food believes that sustainability must be viewed with a holistic approach that goes beyond the usual three dimensions of social, economic and ecological to also consider resilience, health and ethics.⁴⁴

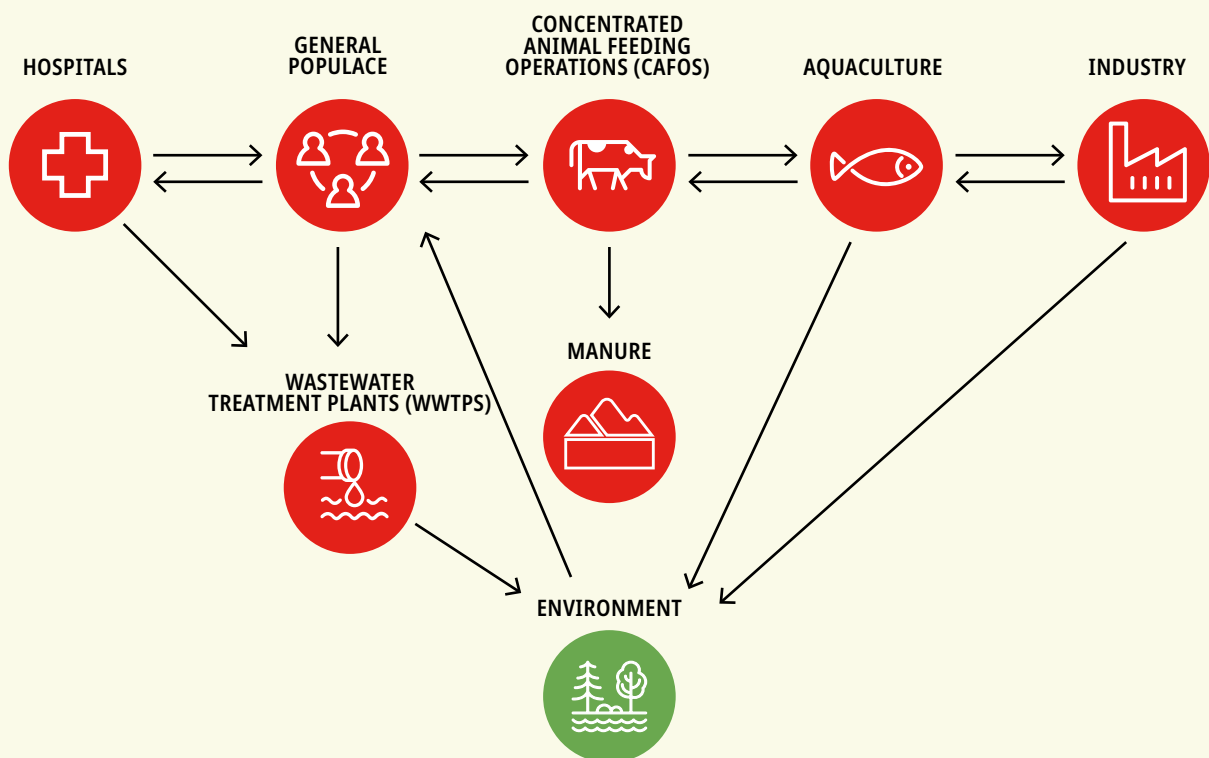


Antimicrobial resistance (AMR)

Problem: AMR has become a global concern, and is so widespread that it has been included in the list of the top public health threats facing humanity.⁴⁵ In Europe, at least 33,000 people die from it each year, equal to the combined death toll from influenza, tuberculosis and HIV/AIDS.⁴⁶ Some experts believe that within a few decades AMR could become the leading cause of death in the world, causing 10 million deaths a year by 2050 and taking more lives than cancer.^{47, 48}

The rapid spread of antimicrobial resistance among various species via direct or indirect contact with their environment makes it harder or even impossible to treat infectious diseases caused by resistant microbes. The acceleration in the spread is mainly due to the overuse of antibiotics in the agricultural and health sectors, plus growth in consumer demand for animal-source products in middle-income countries and a shift to large-scale intensive farms where antimicrobials are used routinely to keep animals healthy and maintain productivity.⁴⁹

THE FOLLOWING GRAPHIC DEPICTS THE WEB OF SPREAD AND INTERCONNECTION



Schematic flow of antibiotic resistance-carrying bacteria (ARBs) and antibiotic resistance genes (ARGs) from hotspots of evolution and transmission (red circles) to the environment (green circle).

Infographic adapted from Kraemer SA, et al. (2019). Antibiotic Pollution in the Environment: From Microbial Ecology to Public Policy

Solution: The most long-term secure solution is to reduce the use of antibiotics at all levels and consider the mutual interdependence among species in the food chain.



Biodiversity and diets

Problem: We are seeing an unprecedented decline in food biodiversity, understood as the diversity of plants, animals and other organisms used for food, which contribute in various ways to a healthy and diversified diet.⁵⁰ Of the more than 300,000 known edible plant species, the world's food supply depends on about 150. Furthermore, four crops—rice, corn, potatoes and wheat—are responsible for more than half of the calories consumed in the world.⁵¹ This lack of diversity is due to the gradual shift from diets based on a wide variety of plants and animals to diets increasingly based on processed foods and a limited number of species.

This phenomenon has interlinked consequences on human and planetary health and the resilience of food systems. For example, the nutritional content of agricultural products has been falling at a global level because of the spread of centralized and industrialized farming methods and monocultures that depend on intensive chemical fertilizers and pesticides, harming soil quality.⁵²

Solution: Localizing the food system and avoiding reliance on food supplements, which represent an added cost and only work as long as they are taken. From a nutritional point of view, many local edible food plant species are richer in vitamins, minerals and macronutrients like fats and proteins than conventional domestic species.⁵³ In addition, local edible food plants require fewer inputs (chemicals, water, fertilizers), are naturally better adapted to their environment and can better withstand disease and pest pressures.

Promoting local edible food plants is a strategy that increases diet diversity among urban and rural populations throughout the year and reduces hunger and the risk of malnutrition in times of food shortages and famine. Moreover, it is sustainable, cost-effective, proven to work and addresses many of the issues raised earlier. Also, the cultivation and breeding of local varieties and native breeds and the rediscovery of traditional processing methods can be a successful strategy to diversify diets and enrich them nutritionally, particularly improving the nutritional status of very poor and marginalized communities.⁵⁴



The climate crisis and health

Problem: The climate crisis, which is in large part driven by our diet, will impact all environmental systems, harming human health. Moreover, global food security is also under threat as rising temperatures and changes to precipitation, plus increasingly extreme events like heatwaves, floods and droughts, profoundly affect agricultural productivity and food security. More carbon dioxide in the atmosphere also makes food less nutritious by increasing the synthesis of carbohydrates and decreasing the concentration of proteins and micronutrients.^{55, 56} This alteration in the nutritional value of food due to climate change joins the consequences caused by soil depletion. When exploited and contaminated by pesticides, antibiotics and hormones from livestock farming, soil loses its biodiversity and ends up with an impoverished microbiome.

Solution: We must change our diet habits to be more plant-based, as meat production alone accounts for nearly a fifth of global greenhouse emissions.⁵⁷ A change in farming methods towards agroecological practices is also urgently needed; when they follow agroecological principles, farmers are able to adapt to climate change and contribute to the sustainable use and preservation of natural resources and biodiversity.

Agroecology

Slow Food promotes agroecology, a holistic and integrated approach that simultaneously applies ecological and social concepts and principles to the design and management of sustainable agriculture and food systems. More than just a set of agricultural practices, it can play an important role in changing social relationships, empowering farmers and privileging short productive chains.⁶⁶



Soil health, human health

Problem: Our gut microbiota is crucial to human health. When unbalanced, it can cause numerous gastrointestinal diseases, but it also affects pathologies such as obesity, metabolic syndrome, atherosclerosis and cardiovascular, neurological and psychiatric diseases.⁵⁸

Soils play a crucial role in the development of the human gut microbiome and the level of micronutrients in plants. Intensive agricultural practices—characterized by monocultures, chemicals, genetic modification and mechanization—reduce soil biodiversity, resulting in a lack of some micronutrients in the diet and an alteration of the human microbiota.⁵⁹ Increasingly sterile soils are leading to a drastic fall in micronutrients in plant species and this is reflected throughout the supply chain: For example, the poor quality of forage fed to cattle is compromising the nutritional quality of meat and dairy products.

Solution: It is essential to support the biodiversity of soils to protect human health, since there is a strong connection between healthy soil and a healthy gut microbiome and thus a healthy body⁶⁰. And good regenerative practices in agriculture, such as increasing crop diversity, not only preserve and revitalize soil but can also mitigate global hunger.⁶¹

CONCLUSION

Transitioning to a sustainable food system where biodiversity is maintained demands a holistic interdisciplinary approach. In the One Health approach, human, environmental and animal health are all taken into consideration, due to the mutual interdependencies between living and non-living beings.

In line with One Health, Slow Food favors the adoption of diverse diets, rich in plants adapted to their environment and grown locally using agroecological methods. Adopting these diets is now essential to tackle the main challenges of the agrifood system: mitigating the climate crisis and ensuring food security.

This paradigm shift can only be made if we start putting food back at the center of our lives, reconnecting with it, returning to cooking and rediscovering the pleasure of conviviality. Too often, healthy diets are associated with privation, calorie restrictions and monotony. In reality, eating can easily be healthy and enjoyable at the same time. A broader understanding of food is needed, in which it is seen as a source of pleasure and an opportunity for building social connections and exchanges.



SLOW FOOD'S RECOMMENDATIONS FOR A HEALTHY FOOD SYSTEM IN THE EU

The EU's commitment to transitioning to sustainable food systems that deliver on both public health and sustainability is made clear in the Farm to Fork Strategy. However, for the Strategy to deliver and its objectives to be met, bold action must urgently be taken in the form of binding policies.

Slow Food calls on the EU to work towards an integrated food policy, bringing coherence between health, environmental, and agricultural policies, as well as engaging actors at all levels including national governments, EU institutions, local and regional authorities, civil society, the food industry, public food procurers in school and hospital canteens, community initiatives, local farmers and others.

- ✦ The Sustainable Food Systems legislative framework the European Commission is expected to publish in 2023 must take a "food systems approach" that considers how food is produced, processed, distributed, marketed and consumed.
- ✦ To promote healthy diets, the Sustainable Food Systems legislative framework must clearly lay down the obligation for all food-related policies to follow the Precautionary Principle, the One Health approach, and to improve food environments. In addition, it must include the transition from industrial to agroecological food systems as a key overarching objective for the EU.

Slow Food advocates for aligning the Common Agricultural Policy and pesticide policies with the objectives of the EU Green Deal and Farm to Fork Strategy through the Sustainable Food Systems legislative framework, to ensure the coherence of health, agricultural, and environmental objectives.

- ✦ The CAP must give greater support to agroecological farmers who protect biodiversity (including agrobiodiversity), conserve soil fertility and limit the use of chemicals, and shift away from a hectare-based payment approach towards one that delivers public goods.
- ✦ The EU must ensure that budget expenditures under the CAP are aligned with both WHO dietary recommendations and promoting agroecology. Greater support should be given to fruit and vegetable production and promotion, primarily supporting plant-based production aimed at food rather than feed, while reducing support for unhealthier foods, including industrially produced meat and other animal products, alcohol, sugar, etc.
- ✦ The CAP Promotion Programme should clearly shift its focus towards supporting healthy food options, in line with the Green Deal and Europe Beating Cancer Plan objectives.
- ✦ The EU should revise its geographical indication schemes by demanding the specific inclusion of environmental, animal welfare and health standards in the production rules.
- ✦ The EU should tackle the threat of antimicrobial resistance by setting higher animal welfare standards that can reduce the risk of illness and the need for antimicrobials, and shifting away from industrial animal farming.
- ✦ The EU must provide technical and financial support to farmers for the development of farm management systems that aim to reestablish the symbiosis between pollinators and agriculture and which do not require the use of synthetic pesticides by making integrated pest management practices mandatory and promoting the transition to agroecology.

- ✚ The EU must set legally binding targets to reduce the use of synthetic pesticides by 80% by 2030 and propose a clear strategy to phase out their use entirely by 2035 as called for by 1.1 million EU citizens as part of the European Citizens Initiative “Save Bees and Farmers.” To do this, it must ban the preventive use of pesticides in farming, gardening and forestry, ban more hazardous pesticides and strengthen the definition of Integrated Pest Management.
- ✚ The EU must put an urgent end to the production and export of pesticides that have been banned in the EU for health and environmental reasons, particularly their export to low- and middle-income countries. In parallel, importing food containing residues of pesticides that have been banned in the EU must be prohibited.
- ✚ The EU and its member states must take a stand against the herbicide glyphosate, and refuse its reauthorization in 2023.
- ✚ The EU must ensure that pesticide authorizations are based on unbiased and independent research data and science and follow the precautionary principle. Conflicts of interest must be avoided and disclosed.

Slow Food calls on the EU to take a “food environments” approach to policy making and make sustainable and healthy diets the easy choice by ensuring that foods, beverages and meals that contribute to sustainable healthy diets are the most available, accessible, affordable, pleasurable and widely promoted.

- ✚ The EU must adopt a holistic approach to food labeling that informs consumers about the nutritional characteristics, food safety, quality, origin and overall sustainability of the product, ensuring full transparency for consumers.
- ✚ The EU must adopt nutrient profiles to strictly regulate the use of health and nutrition claims and prevent consumers from being misled about the nutritional quality of foods, and ensure only foods of good quality can bear such claims.
- ✚ The EU should ensure that food prices send the right signal to consumers and reflect the food’s true cost to society (i.e. including environmental and health impacts associated with food production and consumption and allowing for a fair payment to workers in the food sector) and make healthy diets more affordable to all. One way to do this could be by increasing taxes on unhealthy products whilst making fruit and vegetables tax-exempt.
- ✚ The EU must promote the development of short supply chains and alternative food networks that can deliver healthy and sustainably produced food while supporting the local economy.
- ✚ Public procurement guidelines should be adopted across the EU that promote healthy, diversity-rich and environmentally friendly diets in line with dietary and nutrition guidelines and discourage the consumption of unhealthy foods in public institutions including schools and hospitals.
- ✚ The EU should leverage food procurement in schools, tapping into its great potential to address childhood obesity, reduce inequalities and connect children with food production by integrating healthy meals with food education. Children and adults alike must be educated not only about the nutritional quality of foods, but also about where their food comes from, how it is produced and by whom.

NOTE

1. World Health Organization. [WHO European Regional Obesity Report 2022](#). Accessed December 1, 2022.
2. Hawkes C, Smith TG, Jewell J, et al. [Smart food policies for obesity prevention](#). *The Lancet*. 2015;385(9985):2410-2421. doi:10.1016/S0140-6736(14)61745-1
3. FAO, IFAD, UNICEF, WFP, WHO. [The State of Food Security and Nutrition in the World 2021: Transforming food systems for food security, improved nutrition and affordable healthy diets for all](#). 2021. doi:10.4060/cb4474en
4. SAPEA, [Science Advice for Policy by European Academies. A sustainable food system for the European Union](#). 2020. Accessed February 15, 2022.
5. Swinburn B, Sacks G, Vandevijvere S, et al. INFORMAS ([International Network for Food and Obesity/non-communicable diseases Research, Monitoring and Action Support](#)): Overview and key principles. *Obesity Reviews*. 2013;14:1-12. doi:10.1111/obr.12087
6. Herforth A, Ahmed S. [The food environment, its effects on dietary consumption, and potential for measurement within agriculture-nutrition interventions](#). *Food Security*. 2015;7(3):505-520. doi:10.1007/s12571-015-0455-8
7. HLPE. [Nutrition and food systems. A report by the High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security](#). 2017. Accessed February 15, 2022.
8. World Health Organization. [Noncommunicable Diseases](#). Accessed February 28, 2022.
9. European Commission. [EU Action on Antimicrobial Resistance](#). Accessed December 10, 2022.
10. Kalofiri P, Balias G, Tekos F. [The EU endocrine disruptors' regulation and the glyphosate controversy](#). *Toxicology Reports*. 2021;8:1193-1199. doi:10.1016/j.toxrep.2021.05.013
11. Heinrich-Böll-Stiftung, Bund für Umwelt und Naturschutz Deutschland, PAN Germany, Le Monde Diplomatique. [Pestizidatlas](#). 2022. Accessed March 1, 2022.
12. Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC.
13. IFOAM. [Organic in Europe - Prospects & Developments for organic in National Cap Strategic Plans](#). Accessed March 1, 2022.
14. Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC.
15. De Schutter O, Jacobs N, Clément C, Ajena F. [Towards a common food policy for the European Union - The policy reform and realignment that is required to build sustainable food systems in Europe](#). Accessed February 23, 2022.
16. SINU Scientific Board, SINU Scientific Committee. ["Front-of-pack" nutrition labeling. Nutrition, Metabolism and Cardiovascular Diseases](#). 2021;31(11):2989-2992. doi:10.1016/j.numecd.2021.07.021
17. Caldeira S, Storcksdieck genannt Bonsmann S, Bakogian I, et al. [Public procurement of food for health: technical report on the school setting](#). 2018. Accessed February 15, 2022.
18. European Commission. [Commission Staff Working Document EU green public procurement criteria for food, catering services and vending machines](#). Accessed February 25, 2022.
19. EPHA European Public Health Alliance. [How can the EU Farm to Fork strategy contribute? Public procurement for sustainable food environments](#). 2019. Accessed February 23, 2022.
20. EU Food Policy Coalition (EU FPC) Public Procurement Task Force. [Manifesto for establishing Minimum Standards for Public Canteens Across Europe](#). Accessed December 15, 2022.
21. Matacena R. [Linking Alternative Food Networks and Urban Food Policy: A step forward in the transition towards a sustainable and equitable food system? International Review of Social Research](#). 2016;6(1):49-58. doi:10.1515/irsr-2016-0007
22. EU Food Policy Coalition (EU FPC) Public Procurement Task Force. [Sustainable Public Procurement of Food: a goal within reach](#). Accessed February 15, 2022.
23. *ibid*
24. Monteiro CA, Cannon G, Lawrence M, Costa Louzada ML and Pereira Machado P. [Ultra-processed foods, diet quality, and health using the NOVA classification system](#). 2019. Accessed February 16, 2022.
25. Nestle M. [Food Politics: How the Food Industry Influences Nutrition and Health](#). 2002:457
26. Carson RA, Hamel Z, Giarrocco K, Baylor R, Mathews LG. [Buying in: The influence of interactions at farmers' markets. Agriculture and Human Values](#). 2015;33(4):861-875. doi:10.1007/s10460-015-9675-y
27. Canfora I. [Is the Short Food Supply Chain an Efficient Solution for Sustainability in Food Market?](#) *Agriculture and Agricultural Science Procedia*. 2016;8:402-407. doi:10.1016/j.aaspro.2016.02.036
28. Alonso AD, O'Neill MA. [A comparative study of farmers' markets visitors' needs and wants: The case of Alabama. International Journal of Consumer Studies](#). 2010;35(3):290-299. doi:10.1111/j.1470-6431.2010.00931.x
29. Hatipoglu B, Inelmen K. [Effective management and governance of Slow Food's Earth Markets as a driver of sustainable consumption and production](#). *Journal of Sustainable Tourism*. 2020;29(11-12):1970-1988. doi:10.1080/09669582.2020.1826498
30. Ulijaszek SJ. [Global Transformations of Diet. Models of Obesity: From Ecology to Complexity in Science and Policy. Cambridge Studies in Biological and Evolutionary Anthropology](#). Cambridge: Cambridge University Press;2017:111-132. doi:10.1017/9781316338650.007
31. Special Eurobarometer 505. [Making our food fit for the future – Citizens' expectations](#). October 2020.
32. Thow AM, Downs SM, Mayes C, Trevena H, Waqanivalu T, Cawley J. [Fiscal policy to improve diets and prevent noncommunicable diseases: From recommendations to action. Bulletin of the World Health Organization](#). 018;96(3):201-210. doi:10.2471/blt.17.195982
33. Caldeira S, Storcksdieck genannt Bonsmann S, Bakogian I, et al. [Public procurement of food for health: technical report on the school setting](#). 2018. Accessed February 15, 2022.

34. Hawkes C, Smith TG, Jewell J, et al. [Smart Food Policies for obesity prevention](#). The Lancet. 2015;385(9985):2410-2421. doi:10.1016/s0140-6736(14)61745-1
35. Caldeira S, Storcksdieck genannt Bonsmann S, Bakogian I, et al. [Public procurement of food for health: technical report on the school setting](#). 2018. Accessed February 15, 2022.
36. Blakely T, Cleghorn C, Mizdrak A, et al. [The effect of food taxes and subsidies on population health and health costs: A modelling study](#). The Lancet Public Health. 2020;5(7). doi:10.1016/s2468-2667(20)30116-x
37. One Health. [PRD-OneHealth and One planet – FAO's work on Biodiversity, one health and climate](#). FAO. Accessed February 14, 2022
38. Garcia SN, Osburn BI, Jay-Russell MT. [One Health for Food Safety, Food Security, and Sustainable Food Production](#). *Frontiers in Sustainable Food Systems*. 2020;4. doi:10.3389/fsufs.2020.00001
39. WHO/CBD. [Connecting Global Priorities: Biodiversity and Human Health](#). 2015. Accessed March 1, 2022.
40. Willett W, Rockström J, Loken B, et al. [Food in the anthropocene: The Eat–Lancet commission on healthy diets from sustainable food systems](#). The Lancet. 2019;393(10170):447-492. doi:10.1016/s0140- 6736(18)31788-4
41. Henchion M, Hayes M, Mullen A, Fenelon M, Tiwari B. [Future protein supply and demand: Strategies and factors influencing a sustainable equilibrium](#). *Foods*. 2017;6(7):53. doi:10.3390/foods6070053
42. For further information on the different types of fat, see Michigan Medicine. Types of Fats. Accessed February 14, 2022.
43. FAO, WHO. [Sustainable healthy diets – Guiding principles](#). 2019. doi:10.4060/ca6640en
44. Galli F, Favilli E, D'amico S, Brunori G. [A transition towards sustainable food systems in Europe: Food policy blue print scoping study](#). 2018. Accessed March 1, 2022.
45. EPHA. [Meat Production & Consumption \(in Europe\) and Public Health](#). 2021. Accessed February 14, 2022.
46. [33000 people die every year due to infections with antibiotic-resistant bacteria](#). European Centre for Disease Prevention and Control. Accessed February 15, 2022.
47. [Antimicrobial Resistance: Tackling a Crisis for the Health and Wealth of Nations](#). The Review on Antimicrobial Resistance. 2014. Accessed March 1, 2022.
48. Florez-Cuadrado D, Moreno MA, Ugarte-Ruiz M, Domínguez L. [Antimicrobial Resistance in the Food Chain in the European Union](#). *Advances in Food and Nutrition Research*. 2018;115-136. doi:10.1016/bs.afnr.2018.04.004
49. Monteiro CA, Cannon G, Lawrence M, Costa Louzada ML and Pereira Machado P. [Ultra-processed foods, diet quality, and health using the NOVA classification system](#). 2019. Accessed February 16, 2022.
50. Lachat C, Ranieri JE, Smith KW, et al. [Dietary species richness as a measure of food biodiversity and nutritional quality of diets](#). *Proceedings of the National Academy of Sciences*. 2017;115(1):127-132.
51. Ibid.
52. Hepperly PR, Omondi E, Seidel R. [Soil regeneration increases crop nutrients, antioxidants and adaptive responses](#). *MOJ Food Processing & Technology*. 2018;6(2). doi:10.15406/mojfpt.2018.06.00165
53. Biodiversity International. [Mainstreaming Agrobiodiversity in Sustainable Food Systems: Scientific Foundations for an Agrobiodiversity Index](#). 2017. Accessed March 1, 2022.
54. Ibid.
55. Watts N, Amann M, Arnell N, et al. [The 2020 report of the Lancet countdown on Health and climate change: Responding to converging crises](#). The Lancet. 2021;397(10269):129-170. doi:10.1016/s0140-6736(20)32290-x
56. Medek DE, Schwartz J, Myers SS. [Estimated effects of future atmospheric CO2 concentrations on protein intake and the risk of protein deficiency by country and region](#). *Environmental Health Perspectives*. 2017;125(8):087002. doi:10.1289/ehp41
57. Slow Food. [Climate Change and the Food System Position Paper](#). Accessed February 15, 2022.
58. Blum HE. [The microbiome: A key player in human health and disease](#). *Journal of Healthcare Communications*. 2017;02(03). doi:10.4172/2472-1654.100062
59. Stein MM, Hrusch CL, Gozdz J, et al. [Innate immunity and asthma risk in Amish and Hutterite Farm Children](#). *New England Journal of Medicine*. 2016;375(5):411-421. doi:10.1056/nejmoa1508749
60. Lori M, Symnaczik S, Mäder P, De Deyn G, Gattinger A. [Organic farming enhances soil microbial abundance and activity—a meta-analysis and meta-regression](#). *PLOS ONE*. 2017;12(7). doi:10.1371/journal.pone.0180442
61. [Healthy soils are essential to achieve zero hunger, peace and prosperity](#). FAO. Accessed February 16, 2022.
62. Save Bees and Farmers. [Save Bees and Farmers! Sign now and demand a pesticide ban!](#) Accessed December 15, 2022.
63. Milan Urban Food Policy Pact. [Train for a territorial sustainable food project](#). 2019.
64. Ibid.
65. Hawkes C, Smith TG, Jewell J, et al. [Smart Food Policies for obesity prevention](#). The Lancet. 2015;385(9985):2410-2421. doi:10.1016/s0140-6736(14)61745-1
66. [Agroecology – A Contribution to food security?](#) UNEP. Accessed March 1, 2022.

www.slowfood.com



Funded by the European Union. Views and opinions expressed are however those of the author(s) only
and do not necessarily reflect those of the European Union or CINEA.
Neither the European Union nor CINEA can be held responsible for them