PATHWAY // FOOD .∞ % 74

FOOD FUELS OUR BODIES AND PLAYS A POWERFUL ROLE IN HUMAN HEALTH, PRODUCTIVITY, CULTURE AND POTENTIAL.

At the same time, food is an opportunity for enjoyment, creativity and connection with other people. The food system includes everything involved in feeding people and animals, from farming and fishing to processing, trading, marketing, distribution, consumption and disposal. It is deeply connected with agriculture, land use and working forests for non-food purposes, such as timber and fiber, as competition increases for fertile land.



OUR 2050 VISION

FOR FOOD

A REGENERATIVE AND EQUITABLE FOOD SYSTEM PRODUCING HEALTHY, SAFE AND NUTRITIOUS FOOD FOR ALL

EVERYONE HAS ACCESS TO NUTRITIOUS AND AFFORDABLE FOOD

By 2050 everyone has access to enough nutritious and affordable food to thrive. The food system delivers tasty diets that contribute to healthy lifestyles, while consumers are empowered to make purchasing decisions that support their health. Undernutrition, overnutrition, and rates of obesity and diet-related non-communicable diseases have drastically decreased.

SUSTAINABLE PRODUCTION RESTORES AND SAFEGUARDS NATURE

Food production operates within planetary boundaries. The global food system is resilient, carbon neutral and regenerative. It supports biodiversity, and protects and nourishes ecosystems on land and below water.

FOOD IS CONSUMED SUSTAINABLY

People understand the importance of diets that respect planetary boundaries, and are able to eat sustainably while preserving and celebrating their food culture. Consumers value food and treat it with respect, changing their behaviors to minimize waste.

VALUE CHAINS ARE PROSPEROUS, EQUITABLE AND FREE FROM HUMAN RIGHTS ABUSES

Value is distributed fairly along food value chains. Rural economies are revitalized and thriving; farmers, fisherpeople and workers throughout all food value chains earn fair and resilient incomes, and enjoy good and safe working conditions. Child labor, forced labor, modern slavery and human trafficking have all been eradicated throughout the food system on a global scale.

KEY TRANSITIONS



AGRICULTURE BECOMES MORE PRODUCTIVE, REGENERATIVE AND RESILIENT

- Farmers combine traditional techniques with advanced precision farming technologies and inputs such as soil monitoring, drip irrigation, seeds, feeds, fertilizers and crop protection products.
- Climate-smart agricultural practices are scaled up, with agriculture increasingly functioning as a net carbon sink instead of a source of greenhouse gas emissions.
- Food production is confined to existing farmland, and companies establish supply chains that are free from deforestation and land conversion, effectively halting the conversion of forests and other natural spaces to agricultural use. Degraded areas are transformed back into productive land and agri-business invests in restoring biodiversity and landscapes.
- The human and environmental risk from inputs in agriculture is continuously reduced and the use of inputs is optimized, minimizing environmental impacts.
- Agricultural subsidies are reoriented to incentivize sustainable farming practices and halt deforestation. These efforts are supported by local community engagement and by effective regulation and oversight.
- Animal husbandry operates within planetary boundaries and regenerative capacities.
 Bans on cage farming and long-haul transportation of live animals, together with mandates on the humane slaughter of all farmed species, advance animal welfare.

THE FOOD SYSTEM SUPPORTS HEALTHY, PRODUCTIVE AND WELL-GOVERNED OCEANS

- As fishing and aquaculture deliver an increasing proportion of the global protein mix, business plays a leading role in multi-stakeholder initiatives to guarantee that the world's oceans are effectively managed, and endangered populations are protected and restored.
- Overfishing is halted. Action is taken to ensure that fish populations reach or remain at sustainable levels, that fisheries are well-managed, and that fishing and aquaculture respect other species and wider habitats.
 Essential habitats – including estuaries, wetlands, mangrove forests and coral reefs – are protected and restored through multi-stakeholder collaboration.
- Business innovates new sources of nutrients and protein for fish feed, allowing the fish farming industry to grow sustainably and preventing overfishing of forage fish species.
- Emerging technologies enable seafood traceability at scale.
- Cross-sector collaboration and investment enhance product and material stewardship and large-scale clean-up efforts to tackle the issue of marine plastic.

DIETS BECOME HEALTHY AND SUSTAINABLE

- Diets shift to become more balanced and optimized for health and environmental outcomes. These shifts account for regional outcomes with a significant share of fruit & vegetable and wholegrain, a reasonable balance of plant-based and animal-based proteins, and a minimal share of red meat, processed meat, added fats, sugar and salt, and refined grains.
- Companies adjust their product portfolios to make it easy and attractive for consumers to make healthy dietary choices. Businesses significantly redesign product formulations and distribution systems to encourage a global shift toward healthy diets from sustainable food systems, offering affordable, seasonal, culturally appropriate, highly nutritious and diverse ingredients.
- Business innovation helps to develop and scale an array of new, healthy and sustainable protein sources, including those based on plants, insects, fungi, aquatic organisms and lab-cultured meat.
- Businesses adopt responsible marketing strategies that support the transition to healthy and sustainable diets globally and move away from promoting unhealthy options.
 Policy instruments supporting healthier dietary choices also emerge.

THE WORLD MOVES TOWARD A CIRCULAR FOOD SYSTEM WITH ZERO LOSS AND WASTE

- Businesses across the food system, including producers, restaurants and retailers, lead the way in reducing food loss and waste from farm to fork by developing metrics, setting targets, and implementing new policies and practices.
- Business develops a range of innovative approaches to minimize food waste, including extending the shelf life of perishable food, optimizing storage and supply chain infrastructure and efficiency, and improving demand forecasting.
- Public awareness and advertising campaigns stimulate a large and rapid shift in social norms that makes wasting food unacceptable.
 Improvements in date labeling and portion size help consumers change their behavior.
- Unavoidable waste along the food value chain is redistributed or harnessed for applications in materials or energy as part of an increasingly thriving circular bioeconomy. New legislation and emerging technologies help to close the food system loop.

EQUITABLE DISTRIBUTION OF VALUE THROUGHOUT THE FOOD VALUE CHAIN

- Companies along the food value chain collaborate to ensure that value is shared fairly with farmers and fisherpeople, helping to eradicate poverty and drive rural development.
- Companies also help build capacity on both small- and large-scale farms to adopt locally-appropriate new practices and technologies that are more productive, resilient and regenerative.
- Businesses, governments and civil society work together to ensure a just transition, building resilience and creating new jobs in the rural economy, while supporting and reskilling workers affected by market shifts.
- Businesses, governments and multi-stakeholder platforms work to ensure that human rights are protected and respected throughout the food value chain, collaborating to eradicate forced and child labor, modern slavery and human trafficking, and ensure workers' health, safety and wellbeing.

END-TO-END TRANSPARENCY IS BUILT FROM FARM TO FORK

- Businesses, civil society groups, policymakers and investors collaborate to achieve end-to-end traceability and track comprehensive and consistent data across food supply chains.
- New levels of data quantity, quality and sharing help ensure responsible and sustainable sourcing, increased farmer income, decreased food fraud, and reduced food loss and waste.
- Data enhances companies' capacity to account for the true value of natural, social and human capital used in their food supply chains and to reduce their externalities.
 This data also supports governments in their efforts to implement appropriate incentives and regulations.

 Consumers benefit from more information on where and how their food is produced, which enables a shift toward more healthy and sustainable dietary choices, and brings consumers closer to farmers.

THE TRUE VALUE AND COST OF FOOD IS ACKNOWLEDGED AND ACCOUNTED FOR

- Momentum grows behind new approaches that assess the true value and cost of food, factoring in links with ecosystem services and human health.
- Companies throughout the food value chain scale efforts to measure and value their dependencies on natural, social and human capital as well as the positive and negative impacts of their operations and supply chains.
- Businesses use this information to make decisions and mitigate long-term risks to their business, people, society and the environment. This information also increasingly attracts attention from institutional investors who integrate it into portfolio management practices. Appreciation of the true value and cost of food also motivates policy reform.



RELEVANT SDGs















- 2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round.
- 2.2 By 2030, end all forms of malnutrition. By 2025, achieve the internationally agreed targets set to reduce stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons.
- 2.3 By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fisherpeople, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment.
- 2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.
- 2.A Increase investment including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technological development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular the least developed countries.
- 3.4 By 2030, reduce by one third premature mortality from noncommunicable diseases through prevention and treatment and promote mental health and wellbeing.
- 6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.
- 6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity. Substantially reduce the number of people suffering from water scarcity.
- 6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate.
- 6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes
- 8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value.
- 8.7 Take immediate and effective measures to eradicate forced labor, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labor, including recruitment and use of child soldiers and, by 2025, end child labor in all its forms.

- 8.8 Protect labor rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.
- **12.2** By 2030, achieve the sustainable management and efficient use of natural resources.
- **12.3** By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses.
- **12.8** By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature.
- **13.1** Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.
- 13.2 Integrate climate change measures into national policies, strategies and planning.
- 13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.
- 14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution.
- 14.4 By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics.
- 15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.
- 15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally.
- 15.3 By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world.
- **15.5** Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species.



Adopt and disseminate agricultural and aquaculture practices that are resilient, regenerative, circular, and that produce higher yields with higher levels of putrition.



Evolve and invest in redesigned food product portfolios to reduce environmental externalities, provide healthier options, and maximize positive impacts on people and planet. In particular, drive R&D around protein substitution with a focus on disruptive technologies and re-imagined animal feed sources.



Through marketing and education campaigns, shift consumer and employee behavior toward more healthy and sustainable food choices, and reduced food waste. Refrain from marketing unhealthy foods.



Establish deforestation and land conversion-free food supply chains while also forming and joining global coalitions to invest in restoration efforts.



Set targets, develop metrics, and implement practices and programs to minimize food waste across the supply chain. Reimagine food distribution systems that are built upon principles of circularity and reduce the level of packaging required to maintain quality and safety.



Set science-based targets for reducing emissions from agricultural production and related land use change to establish a clear, accountable pathway to hold temperature rises to 1.5°C. Turn agriculture into a carbon sink.



Engage with policymakers to reorient subsidies and regulations to incentivize sustainable agricultural practices, healthier consumption patterns and reduced food loss and waste.



Develop and improve internal policies and systems to perform human rights due diligence as set out in the UN Guiding Principles on Business and Human Rights and ensure human rights are respected across all food value chains globally.



Account for the true value of food by factoring in natural, social and human capital costs. At the same time collaborate to advance transparency and traceability mechanisms throughout the food value chain and drive open access to data.



Ensure that value is shared equitably throughout the value chain, with farmers and fisherpeople receiving their fair share.