



# FOOD SYSTEMS TRANSFORMATION

ENSURING REGENERATIVE AND RESILIENT PRODUCTION AND CONSUMPTION





# OVERVIEW

**How food is produced and consumed impacts the future of humanity and our planet.**

Feeding 10 billion people sustainably by 2050 is one of humanity's greatest challenges. The current global food production, which depends on healthy ecosystems, has major environmental impacts, pushing the planet beyond its natural limits. Agricultural commodity expansion is driving deforestation and the conversion of natural habitats, which are major causes of biodiversity loss and increased carbon emissions. Current global agricultural productivity relies heavily on fossil fuels and consumes most of the world's freshwater resources, especially groundwater. The further intensification of agricultural systems will only increase the pressure for more inputs and irrigation. Climate change is already exacerbating challenges to produce food sustainably. To nourish future generations, food systems must be in balance with nature and help conserve and restore biodiversity and a stable climate. They must underpin equitable livelihoods and the health and well-being of producers, communities, and economies.

The good news is that food systems have the potential to be a powerful lever for positive change. Efforts to achieve sustainable production and consumption, integrated with conservation strategies, can help enhance biodiversity and boost human health, thus benefiting both people and nature. The core challenge is to improve food systems

so they can support the livelihoods and nutritional needs of the world's rapidly growing population without exceeding planetary boundaries or squandering essential resources and services nature provides.

Meeting these goals means transforming current agricultural food production systems to cut waste, maximize regenerative and resilient production, and integrate planning and management of land and water use. It means driving innovation and creating an enabling environment that aligns markets, policies, and financing. This transformation will require sustained vision and investment in a landscape in regenerative agricultural practices, innovative technology for better production management, reduction of food loss and waste, and policy reforms that incentivize producers and other stakeholders to adopt the necessary changes.

The world is already at the tipping point of ecosystem loss and cannot afford further degradation of critical habitats and resources for food production. Changing production and consumption practices so they are compatible with environmental stewardship requires nothing less than a paradigm shift. This is why WWF's work to transform food systems goes beyond maximizing production to farming with biodiversity so that long-term efficiency, productivity, and sustainability will be achieved through a nature-positive approach.



FOOD SYSTEMS ARE IMPACTING...

## PEOPLE:



**1 IN 4 PEOPLE  
GLOBALLY—1.9 BILLION—  
ARE MODERATELY  
OR SEVERELY FOOD  
INSECURE**



**DIET-RELATED DISEASES  
ARE THE LEADING CAUSE  
OF POOR HEALTH AND  
MORTALITY GLOBALLY**



**75% OF GLOBAL  
CALORIES CONSUMED  
ARE MADE UP OF  
JUST 12 PLANTS AND  
5 ANIMAL SPECIES,  
LEADING TO POOR  
DIETARY DIVERSITY AND  
HUMAN AND ECOLOGICAL  
HEALTH**



**UP TO 40% OF FOOD IS  
WASTED GLOBALLY, 15%  
OF WHICH NEVER LEAVES  
THE FARM**

## NATURE:



**70% OF GLOBAL  
FRESHWATER USE**



**85% OF THE WORLD'S  
MARINE STOCKS  
ARE EITHER FULLY  
EXPLOITED OR  
OVERFISHED**



**70% OF GLOBAL  
BIODIVERSITY LOSS**



**49% REDUCTION  
IN INSECTS DUE  
TO INTENSIVE  
AGRICULTURE AND  
CLIMATE CHANGE**



**80% OF  
DEFORESTATION**



**33% OF THE EARTH'S  
SOILS ARE ALREADY  
DEGRADED; OVER  
90% COULD BECOME  
DEGRADED BY 2050**



**37% OF GLOBAL GHG  
EMISSIONS**



# OUR STRATEGY

Our food work is focused around **four strategic pillars** and driven by **three ambitious initiatives**:



## CONSERVATION OF CRITICAL LANDSCAPES

WWF seeks to halt the conversion and degradation of ecologically critical landscapes, seascapes, and freshwater ecosystems by food production.



## REGENERATIVE AND RESILIENT SYSTEMS

WWF seeks to empower and scale nature-positive production systems that deliver healthy, nutritious, and culturally aligned food, while benefiting climate and people.



## THRIVING PEOPLE AND COMMUNITIES

WWF supports people and communities to develop their own conservation priorities, ensuring that protecting nature also protects their food sovereignty, equitable livelihoods, health, and well-being.



## INNOVATION AND INFLUENCE

WWF seeks to drive game-changing innovations, science, technologies, and policy interventions at scale to create the enabling environment needed to anticipate and drive systems-scale change.

# OUR APPROACH

WWF takes a food systems approach. It recognizes that to attain systemic transformation, landscape and seascape solutions must be joined with community-level actions and global shifts in markets, policy, and financing. Conversion, deforestation, and degradation of natural ecosystems used for food production must stop. Global food systems must become more nature positive and resilient.

To this end, WWF works across food systems to shift production and consumption patterns so they align with the delivery of the Sustainable Development Goals as well as guidance from key United Nations framework conventions for climate, people, and nature. WWF works with a broad range of partners to achieve ambitious environmental and social outcomes through the following steps:

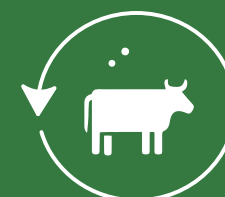
- **DRIVING SCALED ADOPTION OF REGENERATIVE, RESILIENT AGRICULTURAL SYSTEMS** to protect and restore nature, drive circularity by cutting waste, and achieve the scaled adoption of regenerative practices while ensuring the promotion of healthy and nutritious food, the reduction of food loss and waste, and robust livelihoods.
- **SHARING PRE-COMPETITIVE LEARNING AND BEST PRACTICES** with local ranchers, farmers, and community organizations to educate and inform key stakeholders, including corporations, governments, civil society, and academics, across supply chains and food systems.
- **ALIGNING SUPPLY-CHAIN ACTIONS, INCENTIVES, AND MARKET SIGNALS** to reduce deforestation and promote conversion-free efforts on climate, biodiversity, and sustainability.
- **SCALING INNOVATIONS** such as new technologies, tools, and frameworks to create meaningful outcomes for nature, reduce greenhouse gas emissions, create greater accountability, improve efficiency in food production, and advance circularity within food systems.
- **STRENGTHENING THE ENABLING ENVIRONMENT** built on policy that favors sustainable production, quality data management systems, and aligned expectations with clear benefits.

# OUR INITIATIVES



## SUSTAINABLE AQUACULTURE SYSTEMS

Building sustainable aquaculture systems that conserve important aquatic ecosystems to protect biodiversity and carbon sinks; employ more efficient use of natural resources; increase markets and demand for lower-impact seaweed and shellfish species; value human rights; and provide vibrant livelihoods.



## SUSTAINABLE LIVESTOCK AND FEED SYSTEMS

Building sustainable livestock and feed systems that halt the conversion of critical landscapes; protect soil, water, and biodiversity; reduce GHG emissions and capture and store carbon; increase the use of food waste and other efficiency measures; leverage innovations in animal feeding to reduce environmental impacts; and provide sustainable livelihoods.



## FOOD LOSS & WASTE

Influencing governments and food businesses globally to make food systems more efficient and circular so that we can halve per capita global food waste among retailers and consumers and also reduce food losses by half along supply chains, including post-harvest losses on farms.



# WHERE WE WORK



## KEY


 Priority Landscapes and Seascapes

 Engagement in Sector and National Platforms

## 2030 GOALS

- ☐ Achieve zero deforestation and zero conversion of critical habitat, including grasslands, savannas, and wetlands, from commodity expansion.
- ☐ Ensure that regenerative and resilient agroecosystems produce enough food to nourish everyone in the world.
- ☐ Halve the footprint of agricultural food systems by shifting to circular approaches and aligning consumption and demand with nutritional needs.
- ☐ Ensure Indigenous peoples and local communities are empowered to determine their conservation future and have access to agrobiodiversity and healthy, culturally appropriate food.





WWF envisions  
regenerative and  
resilient food  
systems that  
conserve and  
restore nature and  
climate, ensure  
food sovereignty  
and equitable  
livelihoods, and  
deliver healthy,  
nutritious food for  
all—now and for  
future generations.

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