
A new deal for Nature – Change the Way We Produce and Consume Food

The way we produce and consume food is causing major environmental and human health issues, and transforming the agri-food system has become a priority for achieving the Sustainable Development Goals. Food must be produced, distributed, consumed and disposed of in ways that optimize resource use, minimize greenhouse gas emissions, avoid chemicals that harm ecosystems or human health, and stop further loss of biodiversity.

Farming and food systems must change so that they contribute to restoring degraded land and soils while providing an affordable and healthy diet to a population estimated to reach 9 billion people by 2050. Solutions for the shift to sustainable agriculture and food security exist and are ready to be scaled up, but adequate policies and incentives for such a transformation are lacking. If this gap is bridged, agriculture can become a factor of mitigation of and adaption to climate change and support biodiversity conservation, while also improving livelihoods and safeguarding human health.

The situation today

Agriculture and food production are the world's largest employer. However, millions of livelihoods are at risk from climate change and environmental degradation. Food systems are driving climate change, biodiversity loss, water insecurity, soil and water pollution, and other environmental problems. For example, agriculture and related land-use change cause over 70% of tropical deforestation and are responsible for around one quarter of all greenhouse gas emissions. At the same time, food security could be enhanced if food wastage, currently running at 33 percent globally is curtailed.

Land degradation and loss of soil fertility are affecting 3.2 billion people and threaten food security for a growing part of the global population. For example, lack of policy action could accelerate human migration in some regions. In addition, the costs of environmental degradation from food production are often invisible, which can lead to market failures. Food prices are furthermore distorted by policy interventions such as subsidies, which can have negative effects on sustainable development.

Global food systems are dominated by a few commodity crops, reliant on high inputs such as fertilizer and water as well as on international trade, hampering more sustainable production and consumption at national and local level.

Where we need to be by 2030

Land-use should be planned on a sufficiently large scale, as a high-level political priority, to ensure food security while protecting natural landscapes that store carbon and protect biodiversity and water supplies. The development and application of agroecological farming techniques should be accelerated to make soils more productive, minimize the use of agrochemicals and pollution, and make agriculture more resilient.

The private sector should adopt zero-deforestation and sustainable commodity supply chain targets, supported by long-term public policies for sustainable agricultural production, innovative and progressive public-private partnerships and the adoption of sustainability standards. At the same time, policy makers should continue working with all stakeholders, from farmers and processors to traders and consumers, to holistically transform our food systems through policies and institutional reforms that connect environment, health and agriculture outcomes.

In addition, a shift towards plant-based diets and reduced meat consumption, including food loss and waste reduction, should be encouraged as a fast and efficient way to reduce greenhouse gas emissions, conserve biodiversity, and improve human health. Finally, restoration of degraded landscapes should take place on a broad scale and be incentivized through enabling policies, in the framework of the UN Decade on Ecosystem Restoration 2021-2030.

What UNEP advocates for

COMMITMENT

Integrated land use planning to ensure food security while also protecting biodiversity and securing healthy water supplies and develop supply chains that promote zero environmental destruction.

AWARENESS

Promotion of healthier and more sustainable diets and global reduction of food waste by all stakeholders.

FUNDING

Increased public and private investments in sustainable farming and agricultural landscape restoration, to protect nature and enhance healthy food production.

Key UNEP reports

- UN Environment (2019) Global Environment Outlook - GEO 6: Healthy Planet, healthy People. Nairobi
- IPBES (2019) Global Assessment Report on Biodiversity and Ecosystem Services
- IPBES (2018): Assessment Report on Land Degradation and Restoration
- World Resources Institute, UN Environment, World Bank (2018): Creating a Sustainable Food Future
- UNEP (2016) Food Systems and Natural Resources: A Report of the Working Group on Food Systems of the International Resource Panel.
- UNEP (2016) Unlocking the Sustainable Potential of Land Resources: Evaluation Systems, Strategies and Tools. A Report of the Working Group on Land and Soils of the International Resource Panel.
- TEEBAgriFood Synthesis Report

Relevant United Nations Environment Assembly (UNEA) resolutions

UNEP/EA.2/L.9 Prevention, reduction and reuse of food waste

UNEP/EA.2/L.24 Combating desertification, land degradation and drought and promoting sustainable pastoralism and rangelands

UNEP/EA.4/L.3 Promoting sustainable practices and innovative solutions for curbing food loss and waste

UNEP/EA.4/L.17 Innovations in Sustainable Rangelands and Pastoralism

SDGs served



Apart from the extensive research UNEP does on sustainable food systems, it is also involved with projects on the ground. Solar-powered micro-irrigation is being used in Uganda to enhance yields and solar driers are helping to preserve surplus crops for later use. This is just one example of smart agriculture achieved thanks to innovative partnerships, fostered by UN Environment and others under the Ecosystem-Based Adaptation for Food Security Assembly (EBAFOSA) initiative set up in 2015. Photo by Richard Munang/UN Environment

