Food Systems Integrated Program

The Issue

Food systems globally are a major driver of environmental degradation, including loss of forests and biodiversity, degradation of lands, depletion of freshwater resources, agricultural nutrient pollution, and greenhouse gas (GHG) emissions. Agriculture occupies about 37% of the world's total land area and agricultural production accounts for up to 80% of global deforestation; 70% of the terrestrial loss and 50% of the freshwater biodiversity loss; and 70% of global freshwater withdrawals. According to a new study, food systems emit about 20 metric gigatons of carbon dioxide equivalent (CO_2e) per year (about 35% of global GHG emissions).[1] The consequences of unsustainable food production extend into aquatic systems. This makes agriculture the largest source of water pollution, which then runs off into aquatic ecosystems and coastal areas.

Many factors contribute to the increased negative impacts in food systems:

- Rising global population and changes in consumption patterns toward higher protein diets resulting in more carbon-intensive agriculture that will further strain global land-use systems.
- Limited access of small-scale producers and agri-enterprises to viable markets.
- High levels of food loss and waste and increased incidences of food safety, and animal and human health issues.
- Increased energy intensity and ecological footprint associated with the lengthening and industrialization of food supply chains.

Tackling these challenges in isolation will not deliver the desired shift in food systems toward sustainability and resilience for people and the planet. Such transformational change calls for collective engagement by diverse actors involved in food systems. They need to move toward integrated solutions across entire supply chains, from supply (production) to consumption.

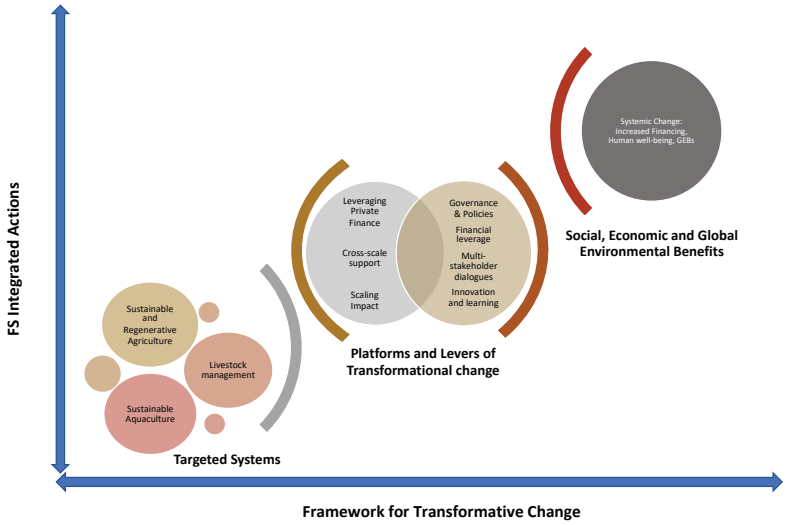
The Integrated Solution

Since its inception, the GEF has provided financing to countries for innovative projects seeking to tackle environmental degradation from agricultural production.

During the sixth and seventh replenishment cycles (GEF-6 and GEF-7), the GEF supported ongoing efforts to transform agriculture through investments in sustainable practices for safeguarding natural capital (land, soil, water, and biodiversity). GEF projects also promoted deforestation-free supply chains for globally important commodities, and reduction of negative externalities (GHG emissions and nutrient pollution).

The GEF-8 strategy will build on this experience. It will focus explicitly on sustainable, regenerative, nature-positive production systems. It will also support efficient value/supply chains covering food crops, commercial commodities, livestock, and aquaculture.

As its overall objective, the GEF-8 Food Systems Integrated Program seeks to catalyze the transformation to sustainable food systems that are nature-positive, resilient, and pollution-reduced. In so doing, the program aims to reduce environmental degradation and negative externalities in food production systems (food crops, commercial commodities, livestock, and aquaculture) and on the demand side across supply chains.



Integrated diverse portfolio of practices to achieve sustainable food systems and impacts at scale

Delivery Framework

To maximize potential for transformative change, the program will operate at two levels—global and national—and consider the four proposed "levers" (governance and policies, financial leverage, multi-stakeholder dialogues, and innovation and learning) for advancing systems transformation.

At the global level, the program will support:

- Leveraging private and financial sectors through encouraging concrete actions on both the production and demand sides toward use and expansion of sustainability standards and commitments to environmental and socially responsible sourcing.
- Catalyzing access to knowledge, technical expertise, and capacity development on issues that represent common challenges across multiple countries or specific geographical regions.
- Catalyzing new opportunities across spatial (landscapes) or vertical (supply chain) dimensions to help maximize scale potential for impact beyond national boundaries.

At the country level, and depending on the context, there are three areas of interventions:

- Creating an enabling environment to shift toward sustainable and regenerative food production sustainability through a diversity of approaches.
- Reducing livestock's impact on the environment and contribution to zoonotic spillover and supporting production of alternative protein sources.
- Expanding investment in sustainable aquaculture management that is explicitly linked to land-based practices impacting freshwater and coastal marine ecosystems.

Expected Impacts

A more diverse portfolio of practices will be key in achieving sustainable food systems. This will include implementing practices that shift food production to least emission-intensive, sequester carbon, and adopt diet shifts. It will also embrace new-horizon technologies supported by improvements in countries' governance, political commitment and technical assistance, and innovative financial mechanisms. As a result, the program will generate global environmental benefits for climate change mitigation, biodiversity conservation, land degradation and water resources, and contribute to food security, livelihood and climate resilience, and better health and nutrition.

1 Ciniro Costa Jr et al. Roadmap for achieving net-zero emissions in global food systems by 2050 Nature Scientific Reports 2022

The Global Environment Facility is the world's largest funder of biodiversity protection, nature restoration, pollution reduction, and climate change response in developing countries. **In June 2022, donor governments pledged $5.33 billion to the GEF for its next four year operating period (GEF-8). Much of the funding will be delivered through a set of 11 integrated programs that address multiple environmental threats at once.**

Contact for Food Systems IP:

Peter Umunay
pumunay@thegef.org