



Food Systems, Land Use and Restoration

Impact Program



Program Rationale

The world needs to dramatically reduce the impact of food systems and land use on biodiversity, ecosystems, and ecosystem services. With 50 percent of the planet's landmass (excluding deserts, permanent ice, and lakes) being used to grow food, the potential for exacerbating environmental degradation will only increase as agriculture continues to expand. Agriculture expansion is causing 70-80 percent of the deforestation in the Tropics. Tropical forests support approximately 70 percent of the world's plant and animal species, so continued deforestation will have significant impacts on biodiversity.

Food systems are a major source of global greenhouse gas emissions. The primary sources are land use change from converting forests, woody savannas, and grasslands into crops and pastures, and draining peatlands for agriculture, methane from livestock, nitrous oxide from fertilizer use, carbon dioxide from tractors, and fertilizer production. Globally, food systems consume far too much water and generate unsustainable levels of pollution. Agriculture accounts for 70 percent of all freshwater withdrawn from rivers, lakes, and aquifers; when considering all direct freshwater consumption by agriculture, the figure rises to 80-90 percent.

These challenges can only be tackled by developing food systems that embed sustainability from farm to fork, that generate agricultural commodities without deforestation and habitat conversion, and that restore soils and degraded areas back to natural ecosystems or to productivity (relieving pressure for further conversion). The challenges are integrated; the solution needs to be as well.

Sustainable land use at scale, which reconciles the competing land practices, must be at the heart of long-term solutions. The willingness and interest of governments and businesses to embrace this approach is on the rise, as reflected in the commitments made under such initiatives as Nationally Determined Contributions (NDCs) under the Paris Agreement, Sustainable Development Goals (SDGs), the Bonn Challenge for landscape restoration, and the New York Declaration on Forests.

These commitments provide tangible targets on which a global land use strategy can be built. Momentum in the business community and civil society can also be harnessed through platforms such as the Consumer Goods Forum and the Tropical Forest Alliance to foster collaboration on zero deforestation commitments, and the Food and Land Use Coalition, a public-private partnership dedicated to the transition toward a sustainable food and land use system.

Program Overview

The **Food Systems, Land Use and Restoration (FOLUR) Impact Program** builds on the momentum and growing commitment by governments and private sector toward a transformational shift in food systems. The Global Environment Facility (GEF) seeks to advance a system-wide

approach that brings together strategies and stakeholders through both horizontal (interventions with actors within landscapes, policy reform, governance strengthening, etc.) and vertical (food value and supply chain commitments and financing) dimensions. The GEF's commitment to promote holistic, integrated, and system-wide approaches in its programming draws on experiences with the **Good Growth Partnership Platform**, which has brought together key stakeholders involved with the agricultural commodities that drive deforestation. The Impact Program will build a global coalition to engage stakeholders in the major food systems and supply chains, including existing platforms such as the Food and Land Use Coalition, Tropical Forest Alliance, Consumer Goods Forum, Bonn Challenge, and others to work collectively with countries toward achieving sustainability.

The Impact Program directly engages 27 countries that were selected on the basis of their strong alignment with the program vision and their high potential to generate global environmental benefits through investments in promoting transformational change. The countries are: **Brazil, China, Cote d'Ivoire, Ethiopia, Guinea, India, Indonesia, Kenya, Nigeria, Madagascar, Malaysia, Nicaragua, Peru, Ukraine, Uzbekistan, Vietnam, Kazakhstan, Liberia, Burundi, Ghana, Guatemala, Mexico, Papua New Guinea, Paraguay, Tanzania, Thailand, and Uganda.** The Impact Program will benefit participating countries by helping them reconcile competing social, economic, and environmental objectives of land management, and move away from unsustainable sectoral approaches.

Specifically, GEF support will help countries meet the growing demand for increased crop and livestock production, while reducing the risk of further expansion of farmland and inefficient practices that lead to deforestation, erosion of genetic diversity, overexploitation of land and water resources, overuse of chemical fertilizers and pesticides, biodiversity loss, land degradation, and greenhouse gas emissions. These impacts will be achieved through scaling up the best practices in value/supply chains for the major food crops and agricultural commodities, influencing markets to increase the share of sustainably produced food crops and agricultural commodities accessing these markets, and engaging policy makers, financiers, and private value chain actors to adopt policies, governance structures, and practices that are demonstrably environmentally sustainable.

Program Approach

The FOLUR Impact Program framework aims to: promote comprehensive land use planning; improve governance and align incentives; scale up innovative and practical applications in commodity value chain partnerships; leverage investments through linkage with private and public partners; and promote institutional collaboration in integrated approaches at the global, country, and landscape level. The Impact Program targets



large production landscapes that have the potential to deliver global environmental benefits at scale and can be sustained after the program concludes. Given the environmental footprint of the food system—e.g., deforestation, natural landscape degradation, greenhouse gas emissions, water depletion, pollution—the program covers globally important geographies for both the major commercial agricultural commodities (e.g. soybean, coffee, cocoa, palm oil, and livestock) and food staples (e.g. rice, wheat, and maize).

Program Delivery Framework

The program delivery framework includes two main levels of operation: *country level investments* that are focused primarily on horizontal dimensions with activities at landscape level, while also allowing space for vertical aspects to contribute to the transformation of the food systems and commodity value chains; and *global-level engagement* to harness strategic partnerships with key entities and initiatives that will support the country-level efforts while positioning the overall program to influence global systems change to achieve impactful outcomes.

Country-level Engagement

The major commodity/food crops that are important for achieving impactful outcomes at scale are well represented in the cohort of countries and landscapes selected for the Impact Program. All these countries have already established links with existing coalitions or platforms focused on promoting sustainability in the target geographies and commodity supply or food value chains.

For the **palm oil supply chain**, the FOLUR Impact program is well-positioned with the participation of *Indonesia* and *Malaysia*, the two largest global palm oil producers. There is also substantial potential for replication and influence with the participation of *Papua New Guinea*. *Guinea*, *Liberia*, and *Nigeria* are important

emerging frontier countries for a range of agricultural commodities including palm oil, while *Peru* has a nascent palm oil sector that has potential for expansion.

The **rice** growing countries participating in the Impact Program (*China*, *India*, *Indonesia*, *Thailand*, and *Vietnam*) are substantial contributors to the global production and trade in this commodity and the program engages five of the world's top six producers. *India*, *Thailand*, and *Vietnam* are among the world's top three largest rice exporters, representing about 60% of global export, while *China* and *Indonesia* are globally important in terms of sheer size of production and as net importers. In *Madagascar*, rice production is encroaching into forest areas and becoming an emerging threat and key driver of deforestation for coffee landscapes.

About 65% of the global **cocoa** bean production and value are accounted for by the three countries currently in the FOLUR Impact Program: *Cote d'Ivoire*, *Ghana*, and *Indonesia*. *Nigeria*, which is the third largest producer of cocoa in Africa and fourth largest producer globally. *Liberia*, *Nicaragua*, *Papua New Guinea*, and *Peru* are all participating in the Impact Program and will benefit from global convening and sharing of knowledge and practices.

Brazil and *Paraguay* represent major **soy and beef** landscapes and value chains in Latin America. *Brazil* is the world's largest beef exporter (20 percent of global beef exports) and soybean producer (83 million metric tons exported in 2018). The Brazil project targets the Cerrado biome, a strategic landscape for economic and environmental reasons as well as for food security. Expansion of agricultural production systems has reshaped the Cerrado landscapes with environmental costs, including significant loss of native vegetation and environmental and land degradation. Paraguay is also a leading producer of soybeans (4th largest) and beef (6th largest) worldwide, and the country continues to expand production to meet global demand. Commodities represent 65% of Paraguay's exports and 25% of its GDP.

Regarding **coffee**, with the inclusion of *Ethiopia, Guatemala, Indonesia, Kenya, Peru, Madagascar, Mexico, and Uganda*, the FOLUR Impact Program includes seven of the top ten coffee producers in terms of volume and value. The *Kenya* and *Uganda* projects add a unique transboundary coffee landscape to the portfolio in the Mt Elgon area. Not all these country projects are focused on coffee bean production in their investment target landscapes, but they will be participating in global knowledge networks, sharing of best practices, and policy reforms, along with *Burundi*, which has lessons to share on shade-grown coffee. *Madagascar* holds critical crop genetic diversity and the large island nation harbors a high number of endangered or vulnerable plant and animal species that are of utmost importance to the world's biodiversity and to the resilience of globalized food systems.

For **wheat** production, *India* and *China* are important producing and consuming countries that are part of FOLUR. India accounts for 13% of global wheat production, primarily through its rice-wheat systems. The *India* project will accelerate efforts to evolve a new model of sustainable agriculture that will transition toward ecologically functioning and healthy landscapes and ecosystems that provide for the needs of numerous user groups and result in multiple global environmental benefits. *Kazakhstan* and *Uzbekistan* are important producers in central Asia. Through the FOLUR IP, *Kazakhstan* will promote adoption of efficient SLM technologies and conservation approaches and foster green value chains to shift the trajectory of degradation to sustainable management for multiple benefits.

For **livestock systems**, *Ukraine* provides an entry point on cattle production, mainly for dairy, and revising production practices in fragile landscapes; *Mexico* and *Nicaragua* add opportunities to address deforestation caused by cattle production for dairy and beef.

Global-level Engagement

At the global level, a Knowledge to Action Platform will be established to create the venue for partner coalitions to jointly assess opportunities, prioritize interventions, and deploy the comparative advantage and expertise of the core partners to address key challenges, whether at the landscape, country, or global level. The platform will strengthen value chain partnerships, support policy and advocacy, and provide strategic knowledge management and communications. It will build on ongoing partnerships and networks to advance the adoption of greener commodity value chains, improve enabling conditions for

investment in sustainable land use practices and landscape restoration, and improve collaboration and alignment among implementing and regulating authorities for more scaled-up and integrated action.

Strengthening engagement of the private sector for delivering the overall program is an important priority for the global platform and will come in areas related to: strengthening corporate governance and sourcing policies; targeting sourcing policies on regions and countries that are putting in place interventions to improve land management; increasing commitments for zero deforestation and sustainability standards in supply chains for both direct and indirect suppliers; catalyzing opportunities to bring additional financing into projects through private sector investments and blended financing mechanisms; and including gender and equity aspects in purchasing/sourcing policies and in engagements with producer organizations and cooperatives.

Expected Results

The FOLUR Impact Program will increase the global reach and impact of interventions by scaling up and out, and by mainstreaming results into improved policies and practices that become new business norms for transforming food systems, land use, and restoration. The Impact Program is expected to deliver significant global environmental benefits, including 42 million hectares of landscapes under improved practices; 2.3 million hectares of land restored; 1.2 million hectares of terrestrial protected areas under improved management for conservation, and 290 million tCO₂e of greenhouse gas emissions mitigated. With a strong emphasis on inclusion and gender equality, the program will directly benefit some 7.2 million people, including Indigenous peoples, local communities, and civil society organizations.

The Global Environment Facility (GEF) was established 30 years ago on the eve of the Rio Earth Summit to tackle our planet's most pressing environmental problems. Since then, it has provided more than **\$21.5 billion** in grants and mobilized an additional **\$117 billion** in co-financing for more than **5,000 projects** and programs. The GEF is the largest multilateral trust fund focused on enabling developing countries to invest in nature, and supports the implementation of major international environmental conventions including on biodiversity, climate change, chemicals, and desertification. It brings together 184 member governments in addition to civil society, international organizations, and private sector partners. Through its Small Grants Programme, the GEF has provided support to more than 25,000 civil society and community initiatives in **135 countries**.