

# Growing Better:

## Ten Critical Transitions to Transform Food and Land Use



The Global Consultation Report  
of the Food and Land Use Coalition  
September 2019



The  
Food and Land Use  
Coalition



# Growing Better:

## Ten Critical Transitions to Transform Food and Land Use



### FOLU Core Partners



---

**The Global Consultation Report**  
of the Food and Land Use Coalition

September 2019

### Supported by



#### Cover image:

Villagers of the Sagai forest villages in the Narmada district of Gujarat, India, where land rights have been reinstated to the community members, enabling them to make a better living by restoring and protecting the land and forests they depend on.

---

# Executive summary

**“You may delay, but time will not.”**

---

Benjamin Franklin

The world faces a remarkable opportunity to transform food and land use systems over the next ten years. This report lays out the scientific evidence and economic case that demonstrate that, by 2030, food and land use systems can help bring climate change under control, safeguard biological diversity, ensure healthier diets for all, drastically improve food security and create more inclusive rural economies. And they can do that while reaping a societal return that is more than 15 times the related investment cost (estimated at less than 0.5 percent of global GDP) and creating new business opportunities worth up to \$4.5 trillion a year by 2030.<sup>1</sup> Delivering such a transformation will be challenging but will ensure that food and land use systems play their part in delivering the Sustainable Development Goals (SDGs) and the Paris Agreement targets on climate change.

Leaving these systems to continue on current trends, by contrast, means sleepwalking into a scenario wherein climate change, sea-level rise and extreme-weather events increasingly threaten human life, biodiversity and natural resources are depleted, people increasingly suffer life-threatening, diet-induced diseases, food security is compromised, and socioeconomic development is seriously impaired. Such a pathway would place the SDGs and the Paris Agreement targets out of reach and within a few decades threaten our collective security.

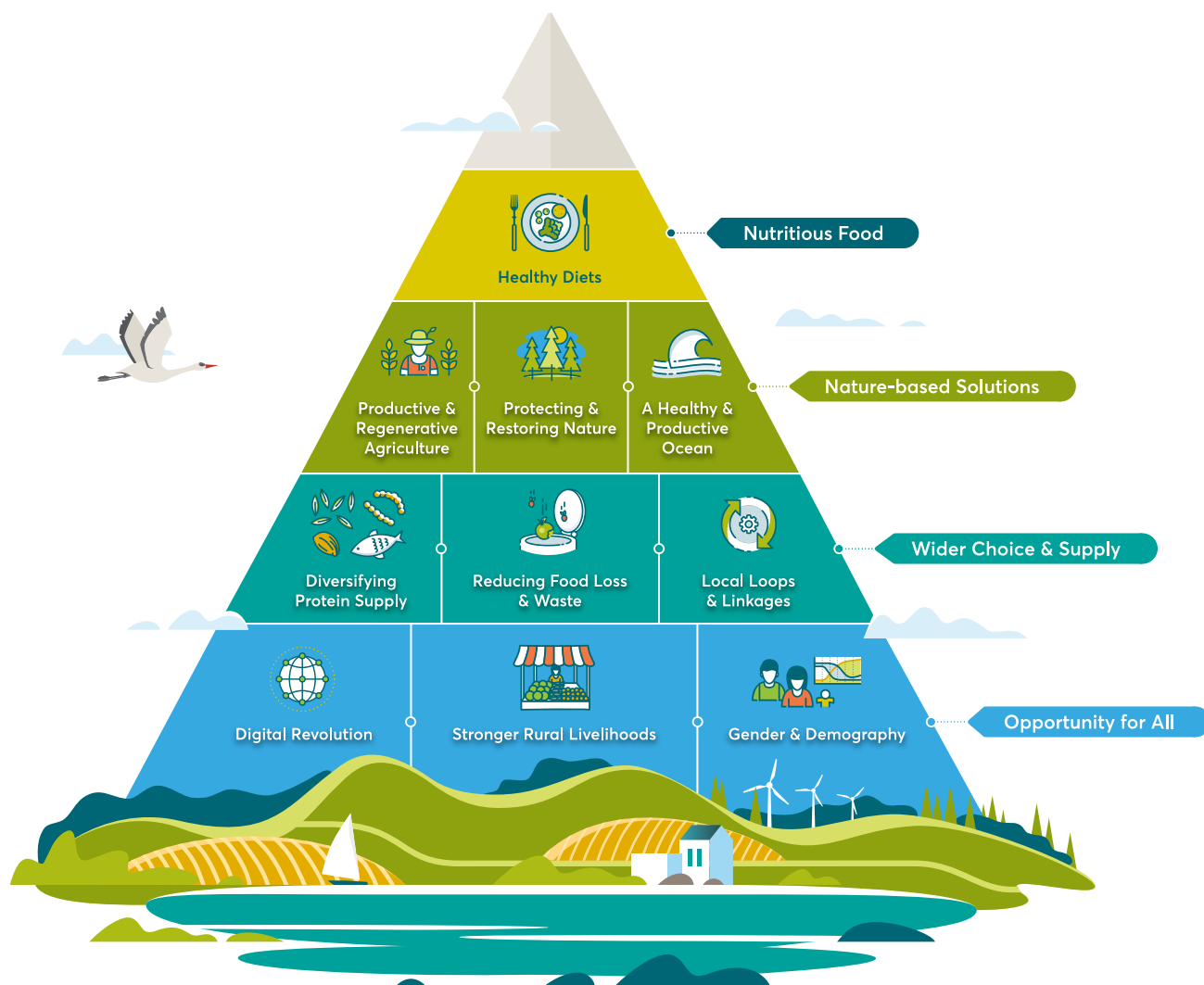
Transformation of food and land use systems thus needs to become an urgent priority globally – for leaders in the public and private sectors, and for civil society, multilateral institutions, the research community, consumers and citizens.

To support such leadership, this report from the Food and Land Use Coalition (FOLU) proposes a reform agenda. This agenda is centred around ten critical transitions that would enable food and land use systems to provide food security and healthy diets for a global population of over nine billion by 2050, while also tackling our core climate, biodiversity, health and poverty challenges (Exhibit 1). The specifics of the reform programme will inevitably vary from one country to the next, and from one community to the next. But all countries and communities could benefit from taking a holistic approach to the transformation of food and land use systems, combining the massive opportunities that are becoming available in respect of “nutritious food”, “nature-based solutions”, “wider choice and supply” and “opportunity for all” agendas.

Conceiving of the programme as a pyramid, the transition at the apex is toward diets that are conducive to good human and planetary health. This is because the consumption patterns of more than nine billion people – what they choose to eat and how they make (or are influenced to make) those choices – are the critical factors shaping how food and land use systems evolve. Empowering consumers to make better-informed decisions that are healthier for them and for the planet ignites the whole reform agenda.

At the second level, the power of nature-based solutions is mobilised to create more productive, regenerative techniques of food production, new approaches to protecting forests and other critical ecosystems, and new ways to manage the ocean in order to protect ocean life and increase ocean protein production. All nature-based solutions have common features. They require effective legal mechanisms to protect natural capital. They require producers – farmers, fishermen and indigenous communities – to be paid transparently and fairly for the ecosystem services they provide. And they show that it is possible simultaneously to strengthen food security, tackle climate change and protect biodiversity. No trade-off is necessary.

# Growing Better: Ten Critical Transitions to Transform Food and Land Use



## Economic Prize

\$5.7 trillion economic prize by 2030 and \$10.5 by 2050 based on avoided hidden costs



## Investment Requirements

\$300-\$350 billion required each year for the transformation of food and land use systems to 2030



## Business Opportunity

\$4.5 trillion annual opportunity for businesses associated with the ten critical transitions by 2030

## Cross Cutting Reforms to Transform Food and Land Use



**Government:** Establish targets; break down governmental silos; put a price on carbon; land use planning; repurpose agricultural support and public procurement; massively increase R&D and target it on healthy, natural solutions.



**Business & Farmers:** Organise pre-competitively to support government reform agendas and set internal standards for specific sectors; establish true cost accounting for food and land use.



**Investors & Financial Institutions:** Build on the Task Force on Climate-related Financial Disclosures to cover nature; develop a set of financing principles for food and land use; develop innovative finance instruments, including blended finance, to manage risks and leverage opportunities.



**Participants in multilateral processes and multi-stakeholder partnerships:** Raise ambition in the United Nations Framework Convention on Climate Change 2020 stock-take and ensure an ambitious outcome in the 2020 Convention on Biological Diversity in Kunming, China.




**Civil Society:** Drive information campaigns for food and land use reform and direct campaigns against serial offenders (public and private).

# FINANCIALS KEY

 Economic prize by 2030

 Annual additional investment requirements to 2030

 Business opportunity by 2030

Ten Critical Transitions		Essential Actions	Financials (by 2030)
 <p><b>Healthy Diets</b></p>	<p>Global diets need to converge towards local variations of the "human and planetary health diet" – a predominantly plant-based diet which includes more protective foods (fruits, vegetables and whole grains), a diverse protein supply, and reduced consumption of sugar, salt and highly processed foods. As a result, consumers will enjoy a broader range of high-quality, nutritious and affordable foods.</p>	<p><b>Government:</b> Establish and promote planetary and human health dietary standards through repurposed agricultural subsidies, targeted public food procurement, taxes and regulations on unhealthy food</p> <p><b>Business:</b> Redesign product portfolios based on the human and planetary health diet</p>	<p> <b>\$1.28 trillion</b></p> <p> <b>\$30 billion</b></p> <p> <b>\$2 trillion</b></p>
 <p><b>Productive &amp; Regenerative Agriculture</b></p>	<p>Agricultural systems that are both productive and regenerative will combine traditional techniques, such as crop rotation, controlled livestock grazing systems and agroforestry, with advanced precision farming technologies which support more judicious use of inputs including land, water and synthetic and bio-based fertilisers and pesticides.</p>	<p><b>Government &amp; Business:</b> Scale up payments for ecosystem services (soil carbon/health and agrobiodiversity) plus improve extension services (training and access to technology, seeds, etc.)</p> <p><b>Business &amp; Investors:</b> Shift procurement from buying commodities to investing in sustainable supply chains; deploy innovative finance to reach currently underfinanced parts of supply chains</p>	<p> <b>\$1.17 trillion</b></p> <p> <b>\$35-40 billion</b></p> <p> <b>\$530 billion</b></p>
 <p><b>Protecting &amp; Restoring Nature</b></p>	<p>Nature must be protected and restored. This requires an end to the conversion of forests and other natural ecosystems and massive investment in restoration at scale; approximately 300 million hectares of tropical forests need to be put into restoration by 2030.</p>	<p><b>Government:</b> Put in place and enforce a moratorium on the conversion of natural ecosystems, and give legal rights and recognition to the territories of indigenous peoples</p> <p><b>Government:</b> Scale REDD+ to \$50 billion per year by 2030 if results delivered and establish a Global Alliance Against Environmental Crime</p> <p><b>Business:</b> Establish transparent and deforestation-free supply chains and demand the same of suppliers</p>	<p> <b>\$895 billion</b></p> <p> <b>\$45-65 billion</b></p> <p> <b>\$200 billion</b></p>
 <p><b>A Healthy &amp; Productive Ocean</b></p>	<p>Sustainable fishing and aquaculture can deliver increased supply of ocean proteins, reducing demand for land and supporting healthier, and more diverse diets. This is only possible if essential habitats – estuaries, wetlands, mangrove forests and coral reefs – are protected and restored and if nutrient and plastic pollution are curbed.</p>	<p><b>Government:</b> Protect breeding grounds, end both illegal fishing and overfishing, and provide title/ access rights to artisanal fishers</p> <p><b>Government &amp; Investors:</b> Develop new approaches and business models for insurance against catastrophic events affecting fisheries (storms, warming events, reef collapse) and for compensating poor fishermen for the cost of fish stock recovery</p>	<p> <b>\$350 billion</b></p> <p> <b>\$10 billion</b></p> <p> <b>\$345 billion</b></p>
 <p><b>Diversifying Protein Supply</b></p>	<p>Rapid development of diversified sources of protein would complement the global transition to healthy diets. Diversification of human protein supply falls into four main categories: aquatic, plant-based, insect-based and laboratory-cultured. These last three sources alone could account for up to 10 percent of the global protein market by 2030 and are expected to scale rapidly.</p>	<p><b>Government:</b> Use public procurement to secure long-term offtake for alternative protein sources</p> <p><b>Government:</b> Increase R&amp;D spending in alternative proteins (especially those with large benefits for lower-income consumers) and ensure that the resulting intellectual property remains in the public domain</p>	<p> <b>\$240 billion</b></p> <p> <b>\$15-25 billion</b></p> <p> <b>\$240 billion</b></p>
 <p><b>Reducing Food Loss &amp; Waste</b></p>	<p>Approximately one third of food produced is lost or wasted. To produce this food that is never eaten by people requires an agricultural area almost the size of the United States. Reducing food loss and waste by just 25 percent would therefore lead to significant benefits relating to environmental, health, inclusion and food security.</p>	<p><b>Government:</b> Regulate and incentivise companies to report on and reduce food loss and waste</p> <p><b>Investors:</b> Finance income-sensitive, climate-smart storage technologies</p>	<p> <b>\$455 billion</b></p> <p> <b>\$30 billion</b></p> <p> <b>\$255 billion</b></p>
 <p><b>Local Loops &amp; Linkages</b></p>	<p>With 80 percent of food projected to be consumed in cities by 2050, what urban dwellers choose to eat and how their needs are supplied will largely shape food and land use systems. This transition sets out the opportunity to strengthen and scale efficient and sustainable local food economies in towns and cities.</p>	<p><b>Investors:</b> Invest in emerging technologies and innovations which will close the food system loop</p> <p><b>Government:</b> City governments to foster local circular food economy through targeted public procurement and zoning</p>	<p> <b>\$240 billion</b></p> <p> <b>\$10 billion</b></p> <p> <b>\$215 billion</b></p>
 <p><b>Harnessing the Digital Revolution</b></p>	<p>Digitisation of food and land use systems is occurring through gene-editing techniques, precision farming, and logistics and digital marketing tools, enabling producers and consumers to make better, more informed choices, and to connect to the value chain rapidly and efficiently.</p>	<p><b>Government:</b> Open access to public sector data (e.g. on national land registries, fisheries, agriculture, soil health etc.) and regulate and incentivise the private sector to provide open source data where appropriate</p> <p><b>Civil Society:</b> Create, maintain and communicate results from real-time platforms for transparency, as is currently done through Global Forest Watch</p>	<p> <b>\$540 billion</b></p> <p> <b>\$15 billion</b></p> <p> <b>\$240 billion</b></p>
 <p><b>Stronger Rural Livelihoods</b></p>	<p>Underlying all ten critical transitions is a vision of rural areas transformed into places of hope and opportunity, where thriving communities can adapt to new challenges, protect and regenerate natural capital and invest in a better future. Ensuring a just transition.</p>	<p><b>All:</b> Establish public-private-philanthropic partnerships to train a new generation of young farmer entrepreneurs over the next decade</p> <p><b>All:</b> Scale up rural roads and digital investments to drive productivity, end rural isolation, and, in particular, initiate a global campaign for renewable electricity access for all</p> <p><b>Government:</b> Safety nets for individuals and stranded communities to ensure a just transition</p>	<p> <b>\$300 billion</b></p> <p> <b>\$95-110 billion</b></p> <p> <b>\$440 billion</b></p>
 <p><b>Gender &amp; Demography</b></p>	<p>Women can be enormously powerful in shaping food and land use systems, thanks to their central role in agriculture and in decisions concerning nutrition, health and family planning. Making sure women have equal access to resources, such as land, labour, water, credit and other services, should be central to policies concerning the ten critical transitions, including by accelerating the demographic transition to a replacement rate of fertility in all countries.</p>	<p><b>All:</b> Invest in maternal and child health and nutrition as well as education for women and girls</p> <p><b>All:</b> Ensure access to reproductive health services and products</p>	<p> <b>\$195 billion</b></p> <p> <b>\$15 billion</b></p> <p> <b>n/a</b></p>