Regenerative Foodscapes:

Accelerating A Global Food System Transition

The Nature Conservancy

A global food system transformation offers cross-cutting solutions that address our humanitarian, climate and biodiversity crises.

Food production is a major driver of climate change and the destruction of nature, accounting for nearly one-third of greenhouse gas emissions, 80% of land-use change and 70% of water use globally. At the same time, climate change and biodiversity loss will make it much harder to produce food in the future, threatening the livelihoods of producers and ultimately making it more difficult to feed a growing population.

But food systems also hold great potential for positive change. Implementing nature-based solutions across our global food system will help mitigate climate change and restore biodiversity, while also maintaining or even improving the livelihoods of food producers.

Section One

Our path forward

Swift change must come to our global food system. Business as usual cannot continue; the pressures the system faces are too great. By mid-century, accelerating climate change will generate acute stress, just as increasing global affluence shifts demand towards more protein-heavy diets.

Farmer picking tea, Upper Tana River Basin, Kenya
© Nick Hall

Now is the time to activate a better path forward. A path that includes intentional, evidence-driven, collaborative change. Global population and food demand will peak around mid-century, but we do not have a generation to act. In many places, we must start now to have any chance of success 30 years from now.

Our global food system accounts for at least 10% of the global economy, employs more than 1 billion people and everyone alive depends upon it. This complex matrix of multiple, integrated systems has succeeded at feeding a growing population. But that success has come at a high and continuing price, paid in habitat and biodiversity loss, increased greenhouse gas emissions, depletion of water resources, soil erosion and increased agrochemical use. The social impacts have been mixed: improved livelihoods and development in some areas, impoverishment and rural exodus in others; all while malnutrition — obesity and undernutrition — are at unacceptably high levels.

A swift transition towards a regenerative food system will ensure that food production is a leading solution instead of the leading problem. A regenerative food system is one in which natural capital is accruing and ecosystem services are improving as food is produced.

Estimates by the Food and Land Use Coalition (FOLU) suggest the costs for the transitions required in our food system will be substantial, between $3 and $3.5 trillion over the eight years between 2022 and 2030. However, this transformation could generate $4.5 trillion annually in new economic opportunities by 2030 and help create a net-zero, nature positive world while ensuring social justice and food security.

Our latest report, Foodscapes: Toward Food System Transition, shows that with a regenerative food system, we can:

- Increase the global carbon benefit on croplands and grazing lands through:
  - Restoration (up to 3.3 $GtCO_2$ y-1)
  - Agroforestry (up to 14.6 $GtCO_2$ y-1)
  - Improved Soil Health Practices (up to 5.0 $GtCO_2$ y-1)
- Restore up to 428 million hectares of crop and grazing lands
- Implement up to 1267 million hectares of habitat-friendly farming
- Increase edible food from sea between 36-74% by 2050 through improved management of wild fisheries and restorative aquaculture
- Reduce water removals for global agriculture by 15%
- Reduce synthetic nitrogen fertilizer use where it is over applied by almost 50%, through nutrient management and substitution with plant and animal sources

Moving Beyond Sustainable

Reframing the changes we need in our global food system

- There has recently been a shift in the terminology used to talk about change in food systems, from "sustainable" towards "regenerative." It reflects a growing awareness that "sustainability," which implies producing without degrading natural resources, a steady state maintained indefinitely, may not be enough in a global food system destabilized by intensifying climate change and accelerating demand.
- "Regenerative" embodies the idea that the global food system must increase natural capital if it is to meet both production demand and address planetary stresses. Improving productivity and rural livelihoods depends on natural resources; it follows that ecosystem services can only cope with these stresses as demand increases if they are not merely maintained but improved.
- Regenerative food systems have the potential to increase biodiversity, increase soil carbon, improve water quality and reduce greenhouse gas emissions. But doing so requires we move beyond sustainability toward a focus on restoration.

Section Two

Where do we start?

Reforming the global food system requires moving from high-level concepts to action. It means changing underlying incentives and norms. It means shifting global policies and markets. The scale of the problem is so vast, complex and interconnected that inertia has plagued the issue. **But, a foodscape-scale approach to planning and action can help drive swift progress that benefits both people and the planet.**

Diverse agricultural landscape in Myanmar
© Heinn Htet Kyaw/TNC Photo Contest 2021

What is a foodscape?

A foodscape puts food production at the heart of a landscape.

In our report, Foodscapes: Toward Food System Transition, we define a foodscape as a distinct food production geography with specific combinations of biophysical characteristics and management attributes, including the political, cultural and economic influences of food production.

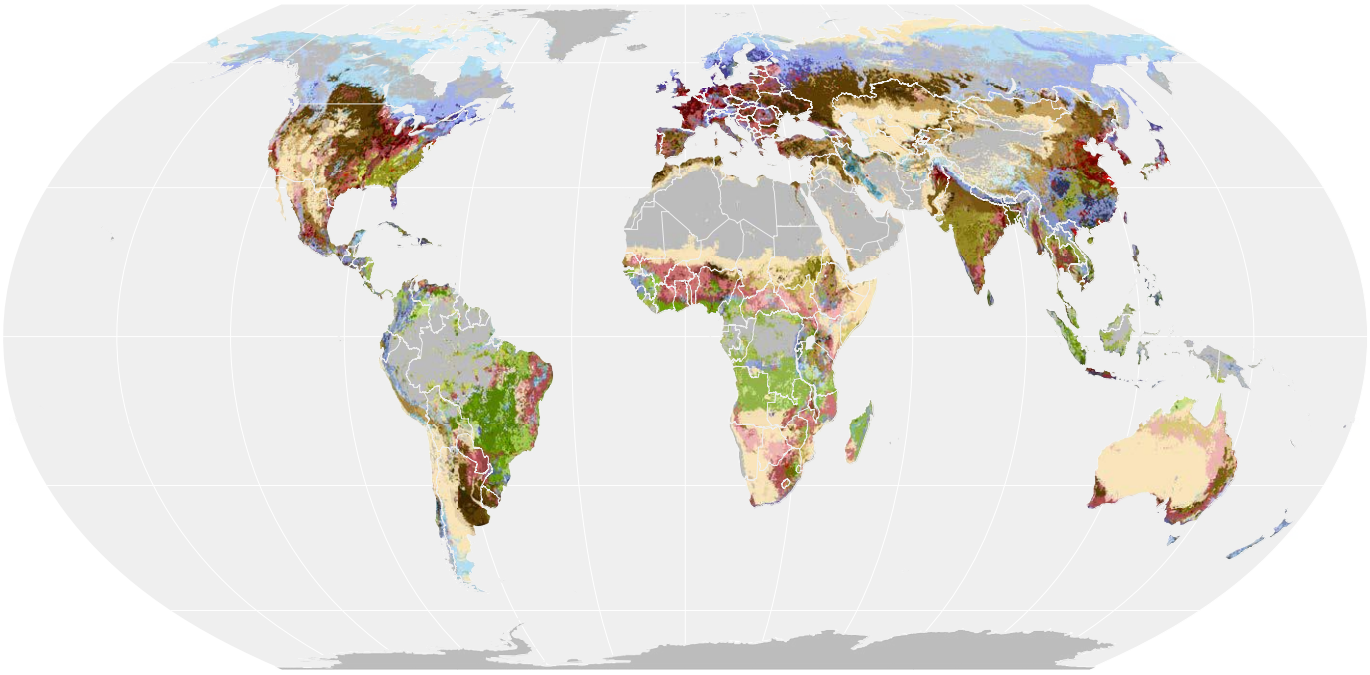
Some attributes of foodscapes, including biophysical and agricultural management characteristics, can be mapped at a global scale.

We have used these characteristics to define and map global "foodscape classes," which make it possible to go from analysis to a realistic vision of the changes that need to happen at local and subnational levels so we can meet demand, improve ecosystem services and address the challenges of climate change.

While caution should be taken when using a global-level product such as the foodscapes analysis, it can provide useful insight that can be further developed, adapted and applied using local, place-based knowledge.

A girl milking her family's herd of dairy cows, Mongolia
© Nick Hall

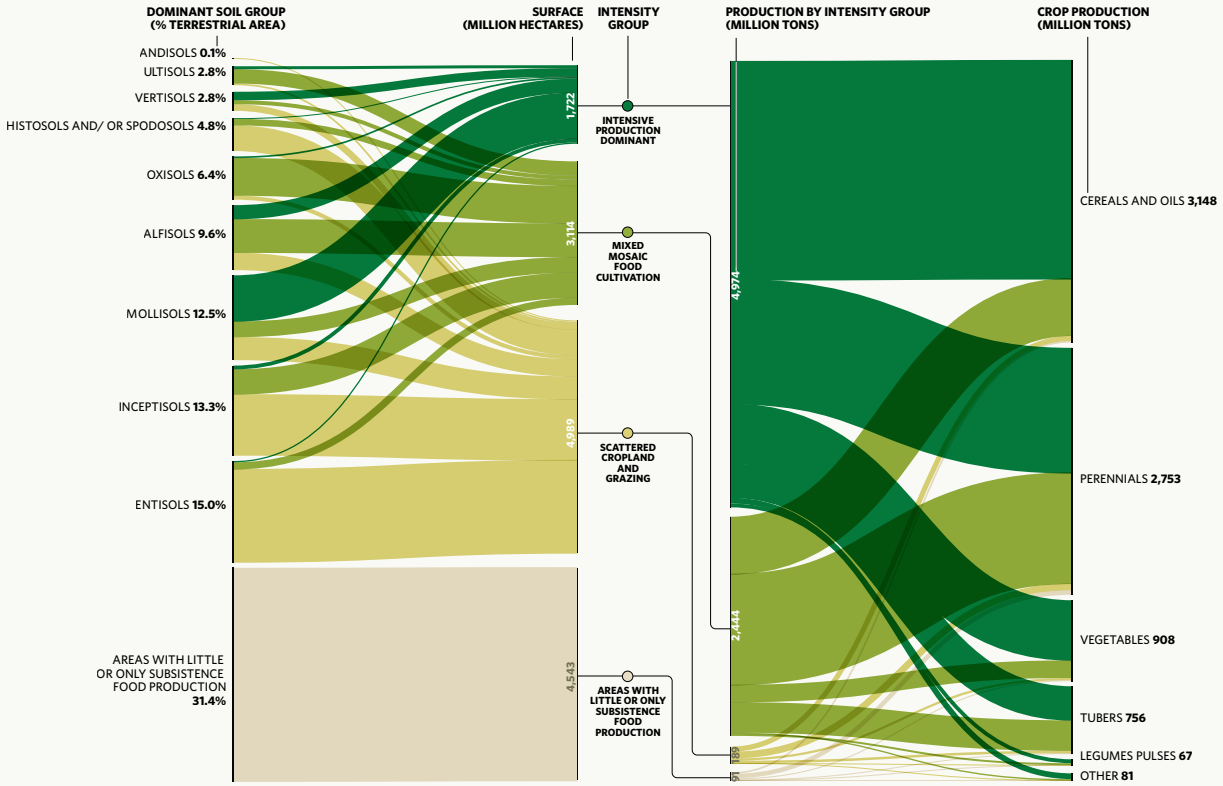
Figure 1. Global Foodscape map visualizing 86 terrestrial foodscape classes at 5 km by 5 km resolution.



Foodscape classes and categories

As one might expect, foodscapes are very diverse. The global mapping used in our report resulted in more than 80 foodscape classes that showcase the diversity of food production systems around the world. These classes can be organized into five broad production categories across the globe.

Figure 2. Global Foodscape intensity groupings and crop production



1. **Breadbaskets**
   (intensive production dominant):

- High potential soils, such as Mollisols, found primarily in the world's plains
- Dominant in the US Midwest, the Canadian prairies, parts of the Brazilian Cerrado, northern China, India and much of Europe
- Consolidated systems in largely converted landscapes
- Contains 82% of the world's irrigated farmland
- 18% of this land (753 million acres) produces 65% of gross total global crop output, including 75% of the world's cereal and oil crops
- At least half of the outputs from this foodscape group are used for animal feed

2. **High Diversity Areas**
   (mixed mosaic food cultivation):

- A wide range of soil types and often in hilly and mountainous areas ranging from arid to humid
- Dominant in the Andes and Central America, the highlands of Southeast Asia and much of Sub-Saharan Africa, also present in parts of Europe and South America
- Mixed, diverse production systems often dominated by smallholders
- Tree cover can be high, agroforestry systems and plantations are common and food production shares the landscape with areas of natural habitat
- Produces about 32% of the total global crop output in fresh weight, of which more than half is in perennial crops such as coconut, oil palm, coffee, tea, cocoa, tropical and temperate fruits, nuts, sugarcane and bananas

3. **Rangelands & Pastures (scattered cropland and grazing):**

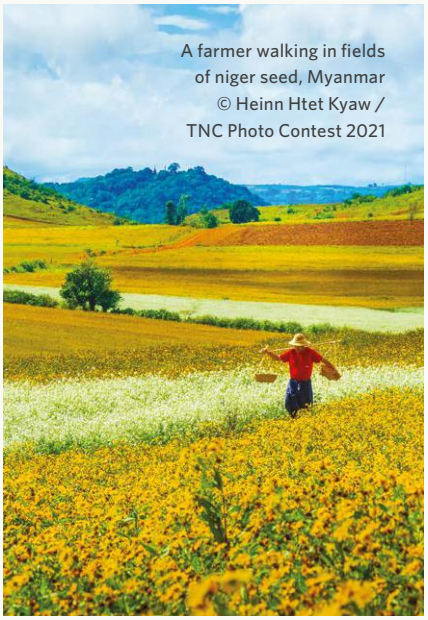
- Substantial amounts of the world's rangelands and pasture, including large tracts of land that are primarily grazed but may have up to 5% of their area in cropland
- Covers large areas of North America, South America, Asia, Africa and Australia
- Encompasses the largest terrestrial production area on Earth — containing just about half the world's foodscape area
- While associated with animal agriculture, the density of livestock in this group is far lower than in the "breadbaskets"

4. **Little or No-Food Areas**

- Includes areas of largely intact tropic forest, tundra, deserts and highly urbanized areas that may have hunting, gathering, low-intensity agriculture (often by Indigenous peoples) and urban agriculture
- Important for food security and diet diversity for local communities

5. **Marine and Freshwater Areas:**

- Includes ocean fisheries, marine aquaculture, freshwater aquaculture and freshwater fisheries
- Not yet mapped and analyzed to the same extent as terrestrial foodscapes, an important research priority



A farmer walking in fields of niger seed, Myanmar © Heinn Htet Kyaw / TNC Photo Contest 2021

Understanding the threats

Climate change and associated natural disasters — drought, fire, flooding and pest and disease outbreaks — threaten the resilience of the world's foodscapes. At the same time, the ways in which we manage — or mismanage — foodscapes has multiple impacts on food production and the environment.

Today, more than half of all agricultural land is already classed as degraded, suffering from a combination of soil loss, excessive tillage, overgrazing, salinization and poor nutrient management. Mapping the world's food production regions supports a deeper understanding of these threats, and we're able to see how they play out at global, national and subnational levels.

Our Foodscapes report shows that:

- Food production occurs in areas of high conservation value.
- All terrestrial foodscapes are now affected by topsoil erosion.
- Water depletion is at or beyond 75% in critically important foodscapes that underpin global food security, including the US Great Plains, California's Central Valley and the Punjab in India and Pakistan.
- All foodscapes face climate change risks, but some face multiple risks; the worst affected are large parts of Iran, Bangladesh, northwest India, eastern Mexico, southern and central Africa and parts of Australia.
- Excessive fertilizer use particularly effects eastern China, Bangladesh, the Punjab in India and Pakistan, parts of Colombia and Central America, southern Brazil and northwestern Europe, including Britain and Ireland. This in turn causes pollution and damages coastal and marine foodscapes.
- Cereals and oil crops tend to be the dominant crops across almost all foodscape classes, illustrating the massive dependence of our food system on a few selected crops grown in highly intensified systems. For example, the world's grain mostly comes from six growing regions, including Ukraine and Russia, which together produce roughly 28% of the wheat and 15% of the corn exported globally. Producing more food on less land can be good, but this also makes the system vulnerable to shocks.

These threats are not independent; they often occur in combination, creating negative feedback loops. Climate change increases water depletion, while habitat conversion worsens soil loss and increases emissions. Multiple and interrelated challenges in individual foodscapes, particularly in the critical breadbaskets of the world, magnify and increase challenges across the entire system.

Section Three

What can we do?

Nature-based solutions

A focus on improving social and environmental outcomes alongside productivity goals broadens the range of benefits that scaling regenerative approaches can bring. Minimizing habitat loss reduces biodiversity loss and mitigates climate change, while greater diversity and resilience in production systems enable climate change adaptation.

The greater land-use efficiency realized by restoring degraded areas, along with more targeted use of inputs, especially nutrients and pesticides, improves productivity and output. Greater productivity and resilience to climate impacts in turn secure rural livelihoods and improve food security in both city and countryside.

We have the tools and understanding to implement these landscape-level efforts that can improve ecosystem services and position foodscapes to meet future demand without biodiversity loss. They are broadly accepted and often called **nature-based solutions.**

Achieving nature-based solutions at the scale needed to bend the curve towards a transformed food system by mid-century will need very significant changes in the way natural resources and food production are managed today. New incentive structures, supply chain reform and market interventions will all be needed, some of them involving radical changes. Taken together, they represent a significant but urgently needed shift from business as usual.

Freshly caught crabs, Chesapeake Bay, USA

Nature-based solutions in action

This not an exhaustive list of nature-based solutions, but it covers an enormous range of solutions that can mitigate the interrelated climate, biodiversity and water challenges facing the world's foodscapes, while at the same time supporting improved livelihoods and wellbeing for food producers.

RESTORATION

There are many breadbasket foodscapes where degradation of pasture and farmland is an issue and where a combination of topsoil loss and "nutrient mining" mean current levels of productivity will not be maintained once climate change stresses are factored in. In these foodscapes, some areas will need to be targeted for remedial action to restore cropland and grazing lands back (as closely as possible) to their original habitats. Some land will need to be taken out of production. Even in highly productive foodscapes, there are typically portions of farms that are less productive and profitable, and these can be restored at a lower opportunity cost. Such place-based habitat restoration would emphasize reestablishment of an assemblage of species native to a given foodscape, including beneficial pest predators, pollinators and wild game. Restoration can also provide co-benefits such as carbon sequestration and mitigation of nutrient pollution and erosion.

PLACE-BASED OPPORTUNITY:

United States Midwest

Case Study

The landscape of the U.S. Midwest was significantly altered to accommodate extensive agricultural production, most commonly corn, soybean and livestock production. More than 80% of original wetlands in Indiana, Illinois, Ohio and Iowa have been drained, and more than 90% of native prairies lost. Habitat has been converted and fragmented; water quality in lakes, rivers and streams degraded; landscapes left increasingly vulnerable to flooding; and marine life in the Gulf of Mexico affected by accumulated runoff.

This current state is not only bad for biodiversity and water quality, it's bad for production and livelihoods too. In order to create a food system in this region that is fit for the future, we must create a landscape that is productive, resilient and profitable. And one way to do that is through restoration. Through adopting practices like 'edge-of-field,' constructed wetlands, watershed restoration and habitat protection, there is opportunity in the U.S. Midwest to increase farm productivity, reduce regulatory burdens and generate ecosystem services.

Implementing these practices is going to require co-ordination and alignment between multiple initiatives: cropping and livestock systems, supply chains and actors in a particular foodscape, including farmers and ranchers. We will need economic incentives and government policies, such as the U.S. Farm Bill and recently passed Inflation Reduction Act, as instruments to assist in changing generational practices.

AGROFORESTRY

Many crop and grazing systems in foodscapes across the world can accommodate many more trees than they currently do. Agroforestry can complement crops and pasture with a range of products and ecosystem services: in croplands they can help improve soil fertility through nitrogen fixation, for example, and provide fodder and shade for livestock in grazing systems. The best agroforestry opportunities in croplands are in intensive production foodscapes, especially western Europe, eastern China and the US Great Plains, but there are also opportunities to expand agroforestry in mixed foodscapes where it is already well established, such as much of sub-Saharan Africa and the southern half of South America.

ARGENTINA GRAN CHACO

PLACE-BASED OPPORTUNITY:

Argentina Gran Chaco

Case Study

The Argentina Gran Chaco, part of the larger Gran Chaco region of South America, has long accommodated a mix of uses, including hunting, grazing, and cropping in a region with high endemic biodiversity. Over the last 30 years, however, global demand for soy and beef has driven the destruction of millions of acres of native habitat and forests and led to rapid and large-scale simplification of this vast, complex landscape.

Such land use conversion — driven largely by demand for soy production — has obvious consequences for biodiversity and climate change but also creates risk for food production. Forest clearing, for example, leads to greater rates of soil erosion, flooding and salinity in croplands. In Argentina, the national government approved a Native Forest Law that limits where land conversion is allowed, but illegal deforestation still occurs in response to strong market demand.

The adoption of agrosilvopastoral techniques — the combination of growing trees, crop production and grazing cattle — offer the potential to protect Gran Chaco's traditional mixed-use landscape while still producing its economically important commodities and protecting its globally important biodiversity and carbon storage.

Widespread adoption of policies and practices, including nature-based solutions, to protect the integrity of the Argentina Gran Chaco requires partnership with the agribusinesses sourcing commo-dities from this region. This highlights the greatest challenge and opportunity for the Argentina Gran Chaco region: the development of coordinated policy and incentive systems that simultaneously promote the use of diverse practices to foster positive environmental, economic, and social outcomes across a diverse, complex landscape.

Cattle grazing in the Gran Chaco, Argentina
© Karina Diarte

SOIL HEALTH

The range of techniques necessary to improve soil health are well-known: cover cropping and mulching, crop rotation and minimizing soil disturbance through minimum tillage, rotational grazing and the seeding of legumes, among others. The combination of such practices improves soil structure and stores carbon, which in turn helps to reduce erosion, improve soil moisture and provide other ecosystem services, such as nutrient recycling. Almost all terrestrial foodscapes have room to improve soil health; the more intensive the foodscape, the greater the opportunity.

PLACE-BASED OPPORTUNITY:

India Punjab-Haryana

Case Study

The Punjab-Haryana region in India is an intensively cultivated breadbasket where Green Revolution innovations in crop breeding led to high-input, high yielding rice and wheat agriculture. That crop combination, in addition to government provision of free electricity to rural areas, drove high rates of groundwater pumping and overdraft.

Subsequent policy to limit dry-season irrigation led to a narrower window between rice harvest and wheat planting, which inadvertently contributed to large scale crop residue burning as a way to quickly prepare fields for wheat. At peak burning periods, agriculture burning contributes around 30% of fine particulate matter in New Delhi, the capital, where it causes respiratory harm, contributes to climate change, and disproportionately affects the poor who are less able to take adaptive measures. Technical solutions have been developed to enable seeding wheat without burning rice residue, but these technologies have not been adopted as widely as necessary despite public investment.

Lasting solutions to both water depletion and poor air quality here require combined and complementary approaches, including nature-based solutions for managing farms without the need for burning.

Adoption of nature-based and other relevant solutions can be accelerated by providing a clear context for aligning public policy and economic incentives around multiple outcomes, including crop production, air quality and water security.

Truck hauling recently harvested rice to market, Ludhiana, India
© TNC India

NUTRIENT MANAGEMENT

Meeting nutrient needs is a central challenge of farming and grazing, but nutrient pollution, particularly nitrogen and phosphorus, is a major cause of freshwater and marine pollution, and in the case of nitrogen a significant contributor to climate change. Some foodscapes suffer from overuse of nutrients, others have nutrient deficits. There are many well-known ways to strike a balance: targeting fertilizer application more precisely, integrating nutrient-fixing legumes into crop rotations, optimizing the reuse of animal manure and diverting human manure from urban areas back to farmland.

UNITED STATES, CHESAPEAKE BAY WATERSHED

PLACE-BASED OPPORTUNITY:

United States Chesapeake Bay Watershed
Case Study

As its name indicates, the Chesapeake Bay Watershed spans terrestrial and marine environments and highlights the connections between the two. The Chesapeake watershed helps frame the cause-and-effect relationship between upstream food producers and downstream consumers, but with a bit of a twist. In this foodscape, many downstream consumers are also food producers (seafood such as oysters and blue crabs) and their quality of life and livelihoods are doubly threatened by excess nutrients flowing into the bay.

Looking at solutions through a foodscape-scale approach — especially in the case of such a distributed, yet interdependent ecosystems — shows how integrated nature-based solutions such as oyster reef restoration, could significantly contribute to improving water quality by removing excess nutrients directly from the waters of the Chesapeake Bay and its tributaries.

Oysters are nature's water filter, and a single healthy adult can filter as much as 50 gallons of water a day. Still, as powerful as they are, restoring oyster reefs alone will not be enough for bay states to meet nutrient-reduction targets set by the federal government. Fortunately, the establishment of the Chesapeake Bay Watershed Agreement, a multi-state and multi-organizational partnership, created a unique policy framework for interstate action toward reaching those environmental goals. And the bay's health is improving. Promising improvements in water quality to date are largely due to three factors: strong investment in science and the development of quantitative nutrient targets; several decades of action and investment, even before formal nutrient reduction targets were established; and political support and buy-in from the communities within the watershed.

Overlaying where enabling conditions and successful nutrient-reduction programs are in place across the foodscape could help decision makers pinpoint areas of maximum need and potential for meeting nutrient reduction targets.

Ultimately, success in the Chesapeake will depend on a combination of regulation, public and private investment to support nature-based and other solutions, including environmental restoration, as well as the adoption of regenerative agriculture practices, and support from the broader supply chain to incentivize sustainable nutrient management.

A farm using optimal nutrient management practices, Cordova, Maryland, USA
© Isaac Shaw

WATER MANAGEMENT

Water is critical to all life and is one of the foundational elements to agriculture, which accounts for 70-90% of total global freshwater consumption, making it the biggest anthropogenic driver of water depletion. Whether too much or too little, water is also one of the most visible impacts of climate change that is acutely felt in agriculture. Opportunities for improved water management are many, and we've chosen to focus on: improved rainwater harvesting; increasing irrigation efficiency; replacing crops with high water requirements such as cotton and rice with crops with lower water requirements, such as sorghum or millet; direct seeding and alternate wetting and drying; and investments in source water protection, such as locally-managed water funds.

PLACE-BASED OPPORTUNITY:

Kenya Upper Tana River Basin

Case Study

The Upper Tana River Basin in Kenya is a diverse, high-elevation smallholder production landscape that is an important source of food for the 9 million inhabitants of the greater Nairobi area. Farmers in the foodscape also export peppers, tomatoes and avocado — mostly to Europe — making this small-holder farming landscape simultaneously crucial for local food demand in one of the most important urban centers in Africa, and a key supplier to international markets. In addition to food, the watershed also provides drinking water for these same 9 million people, as well as 50% of Kenya's electricity supply through a series of hydropower dams along the Tana River.

Located downstream from the important watershed means Nairobi is relatively close to an important food supply, it also means that soil erosion damages the hydroelectric and drinking water infrastructure. This urban proximity offers an opportunity to reap the benefits of planning at the foodscape level, connecting economic and environmental solutions that benefit both urban consumers and upstream suppliers. In fact, one such market-based approach is already at work in the basin.

The Upper Tana-Nairobi Water Fund, an existing public-private partnership, shows how the right policies, conditions and alignment of incentives can support changes in land management practices that reduce erosion, including terracing, water collection basins (water pans) and agroforestry. The water fund mechanism directs investment from downstream commercial and industrial water users toward upstream conservation and agricultural practices to lower sedimentation rates, ultimately reducing infrastructure costs downstream. Water funds, like the one in the Upper Tana River Basin, show that market-based approaches are most effective when paired with innovation from the private sector and strong enabling conditions — policies and social norms, for example — that allow benefits to be shared equitably.

Chania Falls on the Tana River, Thika, Kenya
© Nick Hall

Improved fisheries management and extending aquaculture production can significantly increase output from freshwater and marine foodscapes while also delivering environmental co-benefits in the form of reduced water pollution and greenhouse gas emissions.

PLACE-BASED OPPORTUNITY:

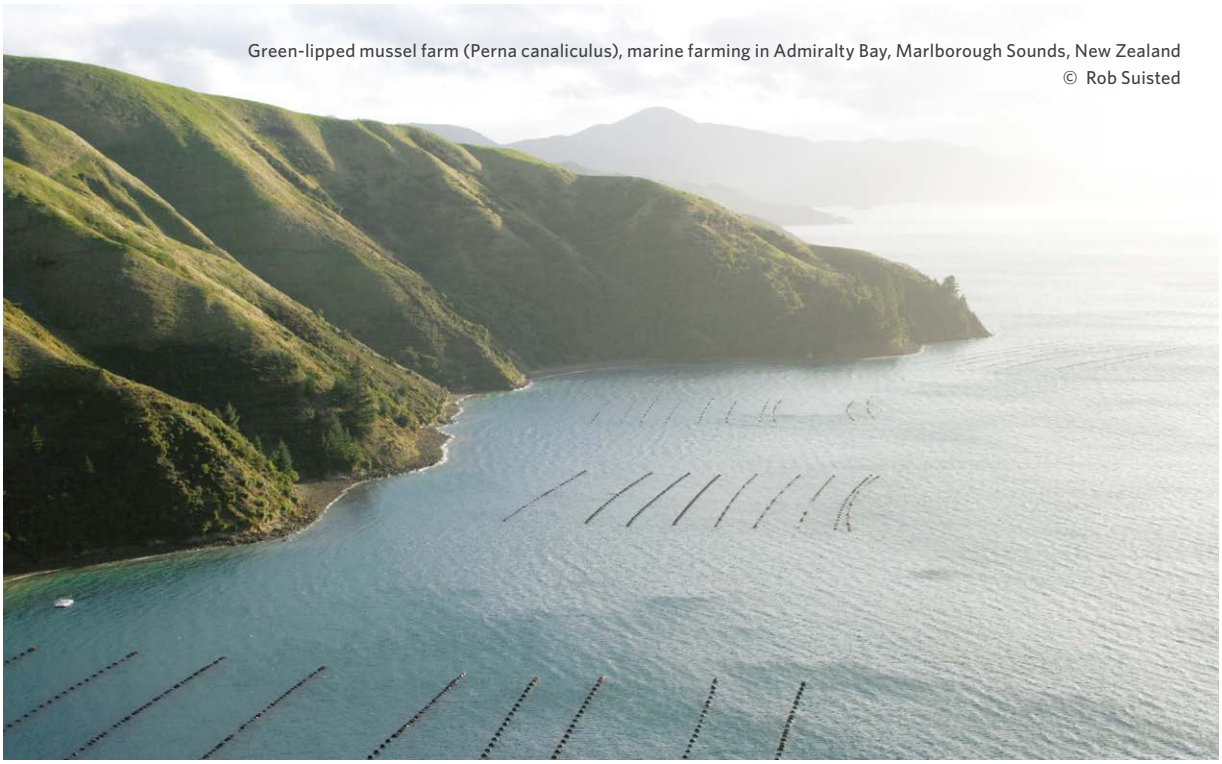
Central New Zealand Aquaculture

Case Study

Central New Zealand is one of the largest shellfish producers in the world. In addition to supplying global markets, seafood has played a central role in the culture and foodways of Indigenous communities for centuries. Yet, the Central New Zealand Aquaculture region has limited space to expand operations in near-shore areas, constraining the opportunity for growth in this highly sustainable food source, and is also vulnerable to environmental and economic shocks because of its focus on a relatively small number of species.

Open-water and near-shore restorative aquaculture practices provide an opportunity to increase the productivity and resilience of the foodscape by adding a seaweed sector to diversify production. But despite strong potential for diversified aquaculture within the foodscape, there is still need to develop both the markets for diversified products and the infrastructure needed for this approach to be effective at scale. In the case of seaweed, barriers to human consumption likely need to be addressed more broadly, including public perceptions around food safety and the viability of seaweed as a dietary staple.

In terms of infrastructure development, emergent programs already highlight the potential for regional partnerships to catalyze sector-wide development, such as Seaweed for Europe. These programs provide a valuable analogue for collaboration on shared challenges and offer learnings in the development of markets and technology, in this foodscape, in New Zealand more broadly, and across other marine foodscapes and regions.



Green-lipped mussel farm (Perna canaliculus), marine farming in Admiralty Bay, Marlborough Sounds, New Zealand

Port Underwood, Marlborough Sounds Museel Farm near Horahora Kakahu, New Zealand
© Rob Suisted

Section Four

How do we get there?

While nature's role in a regenerative approach cannot be overstated, any food systems transition will be driven by local context: policy, markets, supply chains, institutions, norms and culture. They are the cogs and gears of the food system, providing the mechanisms and incentives that drive how actors within the system behave.

Bozo fisherman on the Niger River, Mali
© Reynald Schmid/Getty Images

Perhaps the single biggest challenge in the transition to a more regenerative food system is the fact that the current incentive structure is based on productivity alone. While important, that skews financing towards feeding populations without taking sufficient account of social and environmental costs.

Regenerative approaches will not achieve the scale necessary, or work with the speed needed, unless these underlying incentives and norms are tackled and swiftly shifted toward managing for social and environmental outcomes as well as productivity. It follows that working successfully to change food systems cannot be a top-down, technocratic process. Instead, it requires multi-stakeholder processes that are complex and often contentious, but important to navigate. **The foodscapes scale of action allows the necessary mix of top-down and bottom-up strategies to achieve the necessary transitions.**

A Call for Courageous Collaboration

For transitions to happen at the pace and scale necessary, a range of stakeholders have important roles to play. Incentive structures must be realigned to be mutually reinforcing and complementary, giving regenerative approaches room to grow and scale through a combination of market mechanisms, knowledge networks, changing consumer behavior, reorientation of subsidies and enabling public policy.

But, there is no one-size-fits-all approach.

Transitions must be local, inclusive, context specific and meet the aspirations of farmers and communities that are integral to the foodscape.

Any actions we take must keep producers and rural communities at the center of the approach.

These changes will require new ways of managing supply chains and steering capital flows. The specifics of how this can work will need to be developed at a foodscape level, but the political precondition is in place and crosses any foodscape boundary: widespread consensus that business as usual against a backdrop of accelerating climate change and biodiversity loss is not an option.

The headwinds the global food system is currently facing paradoxically point to the opportunity and potential once food system transition accelerates.

The Nature Conservancy

The Nature Conservancy will play its part in the global food system transition by investing in a portfolio of foodscapes over the next decade. In these foodscapes, we will support local players as they determine how to drive changes in production norms, policies and actions that enable regenerative outcomes on farms, fields and fisheries.

We aim to:

- **Support the integration of multiple food production systems** in a particular region, to increase resilience and support a greater range of rural livelihoods;
- **Develop and accelerate transition pathways** where the food economy reflects the contribution of ecosystem services flowing from regenerative management practices;
- **Align incentive structures** — through new business models, financing instruments, innovation and policies — to ensure that environmental externalities are properly priced and good environmental outcomes rewarded.

TNC's portfolio of foodscape projects includes work in: Argentina's Gran Chaco region; India's northwestern states of Punjab and Haryana; Kenya's Central Highlands ecoregion and the United States' Midwest region.

Learn more about our work at Nature.org/Foodscapes.

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