The Rockefeller Foundation has worked for decades to improve agriculture and food, but in 2020 we met new challenges and established new goals to transform the food system for people and the planet. Today, unhealthy diets account for one in five deaths worldwide, and the food system generates one-third of global greenhouse gas emissions. Even as we sought to respond to the people pushed into hunger by the pandemic and climate change, we transitioned our focus from quantity to quality, investing more than 100 million dollars to transform food systems in ways that help people produce and eat Good Food—food that is nutrient-dense, regeneratively grown, and equitably supplied and accessed.
What We and Our Partners Achieved: Select Impact by the Numbers

GLOBAL

$3 Billion spent by institutions with Good Food commitments in Africa and the U.S.

7 Countries committed to serve 13M students with nutrient-dense meals, including Rwanda, Burundi, Benin, Ghana, Kenya, Tanzania, and Malawi

11.2 Million farmers directly reached across the African continent through AGRA

400 Foods analyzed by the Periodic Table of Food Initiative (PTFI), with 64% of labs (11) using PFTI tools based in low- and middle-income countries

UNITED STATES

176 Million meals served during Covid-19 emergency school feeding initiative across 15 U.S. districts

7.6 Million people have access to Good Food through commitments in the U.S.

$197 Million + committed to Food Is Medicine, informed by the Foundation’s advocacy efforts

75 Thousand + people in the U.S. gained access to Food is Medicine incentives through Reinvestment Partners and other grantees
Maximizing Nutrition

The Covid-19 pandemic accelerated an ongoing food crisis, driving hundreds of millions into food insecurity even as it revealed the inequity and insufficiency of the U.S. and global food systems. **One in six people in the United States had to rely on charitable food in 2020.** Globally, and more broadly, the number of severely food-insecure people has doubled from before the pandemic to 276 million people by 2021. As a result, the Foundation sought to respond to the urgent need to feed the hungry while making investments to transform food systems so that they were better able to nourish people both in and out of crises.

**A Vision of Success**

To inform this work, we commissioned a *True Cost of Food* analysis, which quantifies the negative impacts that flawed food systems have on human health, the environment, and society at large. **The national “bill” for diet-related disease is equal to what we pay for food.** Ecological value loss is the second-highest hidden cost in the U.S. food system. The impacts of food systems can degrade livelihoods and the economy. We deployed our 17 Rooms convening partnership with the Center for Sustainable Development at the Brookings Institution to socialize the findings globally.

Making Good Food more widely available and accessible requires inclusive, innovative, locally driven solutions that help transform food systems. **We launched The Food System Vision Prize to build support around food systems transformation, posing the question: What would regenerative, nourishing, equitable food systems in 2050 look like?** Our call for submissions attracted applicants from government, civil society, corporations, farm communities, and student organizations around the globe. A prize of **two million dollars** was distributed among ten winners in eight countries, supporting local efforts to realize those visions of a regenerative, nourishing, and equitable future, while, at the same time, helping us validate our strategic focus on Good Food. A deep dive into our finalist visions can be found [here](#).

**IMPACT HIGHLIGHT**

**ANNUAL ‘HIDDEN’ COST OF THE US FOOD SYSTEM ($B)**

<table>
<thead>
<tr>
<th>Type</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biodiversity</td>
<td>350B</td>
</tr>
<tr>
<td>Human Health</td>
<td>455B</td>
</tr>
<tr>
<td>Livelihoods</td>
<td>1,145B</td>
</tr>
<tr>
<td>Providing Information</td>
<td>21B</td>
</tr>
<tr>
<td>Environment</td>
<td>3.2T</td>
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</tbody>
</table>

Source: True Cost of Food Report

The annual “true cost” of the U.S. food system is 3.2 trillion dollars when including costs related to human health, environment, biodiversity, livelihoods, and the economy, according to our True Cost of Food report. For more information on our methodology, please see the report’s technical appendix.

“Our Vision aims to strengthen Lakota identity for the citizens of the Sicangu Lakota Nation by rekindling our spiritual connection with the land, eating and making the foods of our ancestors, and living and breathing Lakota values.”

Matthew Wilson
Food Sovereignty Director,
Sicangu Food Sovereignty Initiative

13 Hundred
Visions submitted from 119 countries

4 Thousand
organizations collaborated to produce 13 hundred unique Visions

$2 Million
distributed among finalists
To solve a problem, we need to fully understand it. **We have assembled a global science consortium to establish the Periodic Table of Food Initiative (PTFI)—a historic, comprehensive data resource of all the biochemical components in humanity’s most important foods.** Using analytical chemistry, data-processing, bioinformatics, and machine learning, the platform will provide standardized, detailed, and contextual information on the composition of food and how it helps to improve human and planetary health. PTFI has already analyzed **400 biodiverse foods**, with **64% of labs (11 labs)** using PTFI tools based in low- and middle-income-countries.

**Better School Meals**

Achieving that vision of a transformed food system can start with a single meal—sometimes a school lunch. Food safety nets are essential for many families that cannot afford to buy nutritious food.

In the United States, schoolchildren, especially the most vulnerable, often rely on meals provided from their schools. But when Covid-19 and lockdown policies closed school doors, millions of children faced food insecurity. At a time when an estimated 14 million children were experiencing hunger, disproportionately affecting Black and Latinx households, we mobilized 1.4 million dollars in grants to build on both new and continued partnerships with school feeding programs in the United States.

The supplemental financial support we provided also helped to leverage more than half a billion dollars in existing federal child nutrition funding in districts that served more than 176 million meals through August 2020. To operate in pandemic conditions, schools had to cover essential expenses not reimbursed by the U.S. Department of Agriculture—items like personal protective equipment, grab-and-go containers, coolers, transportation, and meals for siblings. So, alongside its direct grantmaking, the Foundation partnered with the **Urban School Food Alliance** to establish a pooled fund that raised and regranted **three million dollars** in out-of-pocket costs back to schools. As of the writing of this report, five states have passed permanent universal free school-meals policies ensuring children have this critical food safety net in and out of crises.

**“Helping my school and having a sense of purpose during these times is exactly what I feel I should be doing right now.”**

**Yolanda Beasley**

School Dining Manager, Chicago Public Schools

In Africa, we also worked to bolster school meals during the pandemic, making them more nutritious. **We helped establish the Fortified Whole Grain Alliance (FWGA) to promote purchasing and procurement of food with fortified whole grains.** In collaboration with the **U.N. World Food Programme**, the FWGA institutionalizes fortified whole grains by incorporating them into school menus and expanding their use throughout supply chains. The FWGA also prioritizes locally sourced grain, which benefits the local economy and the environment.
In Rwanda, a pilot program enabled 18 public schools to adopt fortified whole maize flour in daily lunches. Many children reported that it made them feel fuller and more energized, with 97 percent of children in the pilot programs preferring the whole grain meal after learning about its benefits. With this initial success, the Rwandan government is exploring how to bring the benefits of fortified whole grains to the four million children covered under the country’s universal school feeding program. Meanwhile, in Kenya and Burundi, we are seeking to expand children’s access to more nutritious whole grain meals. In Kenya, we helped the government develop an operational plan on how to reach universal school feeding that has doubled the number of children who have access to school meals.

**Expanding Nutrition**

Even as these programs continued, the Foundation sought to solve an enduring challenge: the food system largely incentivizes the growing and distribution of inexpensive calories, rather than sustainable and nutritious foods. Fixing that will require a shift not only among the growers but also among buyers. With billions of dollars in annual food spending, the purchasing decisions of large institutions such as hospitals and schools can play a significant role in reshaping markets within food systems. As a result, influencing institutional procurement and purchasing efforts has been a crucial pillar of our Good Food strategy, with the aim to increase accessible nutrition and sustainable production across Africa, Asia, and the United States. Having just set three-year targets in 2021, we have already helped direct three billion dollars to institutions with Good Food commitments in the United States and Africa, exceeding our 1.4-billion-dollar total target.

**Good Food progress**

**7.6 Million**

People served daily by institutions in the U.S. with commitments to Good Food Purchasing, including 4.6M of 30M school children

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**FIELD INSIGHT**

**Africa’s transition to Good Food starts with whole grains**

Today, cereals like wheat, maize, and rice provide 70 percent of calories in Africa. Most are consumed in “refined” form—nutrient-light, carbohydrate-heavy foods that are linked to rising rates of diet-related chronic diseases. A switch to whole grains and whole blend foods can increase the volume of grain-based food by 30 percent and the volume of nutrition at least three-fold. It can also benefit the environment and improve farmers’ resilience to climate while remaining largely budget-neutral. *The Whole Grain Manifesto*, co-authored by several members of our team, provides an in-depth analysis of the benefits of fortified whole grains.

**“The hot uji [multigrain porridge] helps the children look forward to school and be able to concentrate.”**

Pharis Ng’ang’a

Murang’a County, Kenya

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In the United States, our partners have worked in multiple states to promote purchasing commitments that prioritize Good Food from local farmers and millers. In California, for example, our partner, Center for Good Food Purchasing was instrumental in securing the 100-million-dollar California school food incentive fund. In all, we estimate the 25 school districts enrolled in our Good Food Purchasing Program (OFPP) serve as many as 478 million meals annually with purchasing of up to 555 million dollars annually.

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**Good Food progress**

**7.6 Million**

People served daily by institutions in the U.S. with commitments to Good Food Purchasing, including 4.6M of 30M school children
Projected impact of Good Food Purchasing Program (GFPP) if schools made appropriate shifts

19,552 New Local Jobs
created, equivalent to annual local wages of 971 million dollars

1.35 Million
metric tons of CO2 reduced by decreasing conventionally raised grain-fed beef by 30%

567 Thousand
pounds of pesticides reduced and decreased pesticide use on 47,600 acres of farmland
More Impact Stories

Nearly 20 years ago, The Rockefeller Foundation and the Bill and Melinda Gates Foundation established AGRA to help decrease food insecurity across the African continent. AGRA has evolved to focus on regenerative agriculture, inclusive finance, and climate resilience as well. Recently, The Rockefeller Foundation’s role in AGRA has focused on strengthening institutional procurement for nutritious and biofortified food, creating the Food Security Tracker: Africa, expanding regenerative agriculture and promoting beans as a nutritious and climate adaptive crop.

A Nutritious Take on Medicine

What if we could prevent, manage, and treat diet-related illnesses with the contents of a grocery bag? With the growth of Food is Medicine (FIM) health interventions in the United States, this future might be possible. The Food is Medicine Action Plan indicates that consumption of fresh produce can lead to improved dietary intake, better health outcomes, and decreased food insecurity. Through Reinvestment Partners and other partners, we have already helped over 75,000 individuals in the United States gain access to FIM incentives, surpassing our 50,000 goal. As of the end of 2022, 197 million public dollars were committed to Food is Medicine, with 250 million dollars to be mobilized by the Foundation with Kroger and the American Heart Association to create the FIM research platform.

“My doctor referred me to the Produce Rx program. I used to suffer from leg pain and had high cholesterol, but by changing the way we eat, I lowered my cholesterol, got off medication, and lost weight. At 61, I have a lot of strength to work. I am very grateful.”

Sonia Lopez
Produce Rx program participant
Adelante Mujeres

**Produce prescriptions (Prx) are a key FIM intervention that allow doctors to prescribe produce or treat chronic disease by making healthy foods more affordable.”
Our Smart Market Idea Wasn’t Feasible

In 2021, we supported the design of a Smart Market concept in Africa to improve the hygiene, resource efficiency, and traceability of the traditional open markets. The idea was to rethink the basic components of the food market and improve how it worked, from its water supply to its use of energy. The Foundation supported two partners in Kenya to reimagine the future of open-air markets in the country in partnership with local communities.

While the work brought forth many innovative ideas and culminated in valuable thought leadership, we were not able to mainstream the concept into national designs for all food markets as we had intended. The designs ultimately ended up being too expensive to implement in a way that promised meaningful impact. Moving forward, we aim to assess the scalability of our innovations early and often throughout our work.
What we learned

There is nothing more elemental than the food we produce and eat. Here are some of the lessons we have learned in the past three years about getting to Good Food:

- **Crises can lift policies previously considered untenable.** Covid-19 shed light on the role of schools as anchors in the community and efficient providers of nourishment for children. It changed the national outlook on the possibility of universal free school meals for all in the United States, Rwanda, and Kenya—momentum that we supported and continues now.

- **Comprehensive metrics on Good Food must be developed.** The food space does not suffer from a lack of metrics per se, but when we began this work, there was no widely accepted way to convey the value of different foods at the biochemical level or to track diet quality across countries and regions. As we work to address this, we are learning that convening and consensus-building is essential to develop metrics that work for multiple stakeholders in diverse contexts.

- **The true cost of food is more than three times what we spend on production.** Developing Our True Cost of Food report taught us valuable insights about how to best analyze the “actual” cost of food systems when accounting for agriculture’s impact on human health and the climate.

- **Top-down, single-solution thinking has for too long dominated the field of agriculture development.** Instead, we must focus on the diversification of products and practices at the farm, support farmer co-learning, and root innovation in farmer-centricity and local needs—all of which is better for the farmer, consumers and the planet.