Acknowledgements

Report Authors
Vanessa Mukhebi
Jeffrey Costantino
Paige Downey

Contributing Staff
Lily Herd
Katy Franklin
Angel Veza

Designer
Ocupop
The Food Waste Opportunity

In the U.S. today, 35% of all food goes unsold or uneaten. That’s $408 billion worth of food — roughly 2% of U.S. GDP — with a greenhouse gas footprint equivalent to 4% of total U.S. GHG emissions. This is equivalent to emissions from about 58.6M cars annually — all while food insecurity skyrocketed due to COVID-19.

The good news is that food waste is solvable. In a new analysis, ReFED analyzed what it would take to achieve national and international goals to reduce food waste by 50% by the year 2030. We found that an annual investment of $14 billion over the next ten years can reduce food waste by 45 million tons each year — a five to one return.

- $73B NET FINANCIAL BENEFIT
- 4T GALLONS IN WATER SAVINGS
- 75M TONS GHG EMISSION REDUCTION POTENTIAL (MT CO2e)
- 4B MEALS FOR PEOPLE IN NEED
- 51K JOBS CREATED THROUGH SOLUTION IMPLEMENTATION OVER 10 YEARS

OUR MISSION
ReFED is a U.S. based national nonprofit dedicated to ending food loss and waste across the food system by advancing data-driven solutions to the problem. We do this by:

- Leveraging data and insights to highlight supply chain inefficiencies and uncover economic opportunities
- Mobilizing and connecting critical food system players to take targeted action
- Catalyzing capital to spur innovation and scale high-impact initiatives

OUR VISION
A sustainable, resilient, and inclusive food system that optimizes environmental resources, minimizes climate impacts, and makes the best use of the food we grow.
“When the pandemic first hit, we saw food waste increase dramatically as business closures blocked normal distribution channels. Not only was this a tragic waste of food at a time when so many people were facing economic hardship, it’s also a significant environmental concern, because food loss and waste are huge drivers of climate change and resource depletion. When food is wasted, so too is the land, water, labor, energy, and other inputs that are used to produce it. Tackling food loss and waste might seem like a gargantuan task, but it’s one that is eminently doable – and it’s absolutely necessary to conserve the planet and resources for future generations.”
A Letter from Our Executive Director

Dear Friends,

2020 was the year that many Americans really started to think about food. Not the usual thoughts like “What should I make for dinner?”, “How’s that new restaurant down the block?”, or “Am I ever going to get my kids to eat vegetables?” Because of COVID-19, many people’s thoughts turned to more urgent concerns — “What if the grocery store runs out of food?”, “When will it be safe to eat out again?”, and “How will I feed my family if I lose my job?”

COVID-19 revealed to many of us the way our food system works – and sometimes doesn’t. We saw how disruptions in the normal flow of food products could rock the entire system and how difficult it can be for businesses to adjust their operations to quickly account for new barriers.

Like many organizations, much of our 2020 work focused on COVID-19 — from helping the food system understand the scope of its impact, to sharing insights about how businesses could reopen and operate safely, and connecting innovators with funding to scale their food waste reduction and hunger relief initiatives.

This report highlights that work, as well as some of the other efforts we thought you would find interesting — most notably, the new ReFED Insights Engine and Roadmap to 2030: Reducing U.S. Food Waste by 50%. Hopefully by the time you read this, you’ll have had the chance to explore both of those resources. They provide a long-term blueprint for helping to create a more sustainable, inclusive, and resilient food system — one that’s ready to meet the next challenge it faces.

We have a lot of work ahead of us in 2021 and beyond, but I am confident that we can achieve our common goal to cut food waste in half by 2030 through sustained collective action.

Thank you for your continued support of ReFED.

Dana Gunders
Executive Director
2020: Year at a Glance

Despite the unprecedented challenges of this past year, ReFED has been able to make notable strides in our commitment to advance data-driven solutions to reduce food loss and waste.

$3.5M  Catalytic funding raised and distributed for the ReFED COVID-19 Food Waste Solutions Fund

$4.8M  Raised towards ReFED’s fundraising campaign goal of $10M

28  Presentations at food system-focused conferences and webinars

$1M Innovation Challenge

Serving as managing partner and strategic advisor for The Wonderful Company’s Innovation Challenge POM Pay Day

225  Media mentions including Bloomberg, Forbes, Fox News, National Geographic, and Washington Post. A 112% growth in media mentions from 2019

60+  Expert Network members — a broad collective of food system experts, critical to driving the action needed to achieve the national food waste goal.

+32%  Follower growth on ReFED’s Twitter and LinkedIn channels

Our work contributes to the following UN Sustainable Development Goals:
Resilience

“This past year has been challenging for everyone, and it is unfortunate that people who are already faced with hunger are affected the most in emergency situations and times of uncertainty. Our work is critically important, now more than ever, as we move forward in our recovery from this pandemic. The simple act of rescuing excess food to feed our communities can help build a more efficient, equitable, resilient, and sustainable food system.”

PHIL AUGUSTUS ACOSTA
ALOHA HARVEST
EXECUTIVE DIRECTOR
ReFED COVID-19 FOOD WASTE SOLUTIONS FUND GRANTEE
The ReFED COVID-19 Food Waste Solutions Fund

2020 was an extraordinary year fraught with momentous developments and uncertainty, and largely defined by the pandemic. In particular, COVID-19's spread across the U.S. completely disrupted the food supply chain — resulting in a surge of on-farm food loss, food business closures, and an increase in the number of Americans facing food insecurity to 50 million. In response to these challenges and leveraging our expertise on advancing data-driven solutions to food waste, we launched the ReFED COVID-19 Solutions Fund to quickly deliver more than $3.5 million in vital funding to mid-sized, for-profit and nonprofit organizations across the U.S. that could rapidly scale food waste reduction and hunger relief efforts. A particular focus was placed on the rescuing of fresh, healthy food from farms and dignified, convenient last-mile delivery to the increased number of Americans facing food insecurity.

Geographical Reach of the 37 Grantees

ReFED leveraged its research and data to design a portfolio of organizations that is well-positioned to support the areas hardest hit by COVID-19.

Grantees

412 Food Rescue
Aloha Harvest
BlueCart
Boston Area Gleaners
Brighter Bites
Central Pennsylvania Food Bank
DC Central Kitchen
Dreaming Out Loud
FarmDrop
FarmLink
Food Connect
Food Forward
Food Rescue Alliance
Food Rescue US
Forager
Full Harvest
Goodr
Harvard Food Law & Policy Clinic
Harvest Against Hunger
L&M Companies
Lovin' Spoonfuls
Move for Hunger
Natural Upcycling
Oceanside Unified School District
Partnership for a Healthier America
Plentiful (City Harvest)
Replate
Seashare
Second Harvest Heartland
Second Servings of Houston
Table to Table
Take Care (Bitwise Industries)
Treasure8
United Against Poverty
Vermont Foodbank
The Wave Foundation
White Pony Express
Building Resilience, Nourishing Communities, Scaling Impact

- **84.2M** POUNDS OF FOOD RESCUED
- **8.1M** PEOPLE SERVED
- **92%** OF GRANTEES SERVING BLACK, INDIGENOUS, AND PEOPLE OF COLOR POPULATIONS
- **2.5K** JOBS CREATED OR RETAINED
- **95%** OF GRANTEES LED BY DIVERSE TEAMS

Timeline of ReFED COVID-19 Food Waste Solutions Fund

- **May 01**
  - LAUNCH OF OPEN CALL
- **June 30**
  - $3.5M IN TOTAL FUNDS RAISED
- **July 30**
  - GRANTEES RESCUE +28M LBS OF FOOD - SURPASSING INITIAL GOAL OF 10M LBS
- **November 30**
  - GRANTEES RESCUE +80M LBS OF FOOD SINCE MAY

*These metrics represent the total impact that the grantees have made since May.*
The ReFED COVID-19 Food Waste Solutions Fund was able to provide highly catalytic funding to 37 grantees across the nation – helping them to overcome barriers in light of the pandemic and focus on recovering food and serving the growing number of food insecure individuals. As the fight against food waste and hunger continues, catalytic funding is even more crucial during these unprecedented times in order to close funding gaps, de-risk innovations, and scale impact.

71% of the grantees indicated that ReFED’s funding served as a catalyst for additional funding they’ve received and generated exposure to new funders.

65% of the grantees were able to serve new populations and geographies thanks to the Fund.

86% of the grantees developed critical new partnerships during their grant period.

The grants distributed through the Fund enabled the majority of the portfolio to raise additional funding — more than 13x the average grant size.
Donors reflect on why they supported the Fund

“The COVID-19 Solutions Fund was a true rapid response fund that turned a crisis into an opportunity. ReFED leveraged the infrastructure it had in place to direct funds where they were needed most, while engaging its network to share best practices and resources. Months after the initial grants were made, we are continuing to see new partnerships and opportunities emerge that might have otherwise taken years to realize.”

IDA POSNER
POSNER FOUNDATION OF PITTSBURGH
STRATEGIC ADVISOR

“‘In a swift response to issues caused by the pandemic, ReFED utilized their strengths to support the environment, food producers, restaurants, and the many who needed hunger relief. Relying on their expertise allowed us to deploy capital quickly both locally and nationally to some of the most impactful actors in the space and helped us give organizations the capital they needed to scale during a time when their innovations and services are critically needed.’

JACKIE HINDAWI
THE HINDAWI FOUNDATION
EXECUTIVE DIRECTOR

What the grantees have to say about working with ReFED

“With support from ReFED’s COVID-19 Fund, Dreaming Out Loud was able to build critical capacity and utilize key infrastructure to support our food recovery efforts. We are proud that our food recovery efforts were highly cooperative, involving nonprofit and community-based organizations, as well as food entrepreneurs from our DREAM Food Enterprise program. In total, we produced more than 70,000 meals and delivered groceries to 1,300 individuals and families weekly through November 2020 with resources provided by ReFED.”

CHRISTOPHER BRADSHAW
DREAMING OUT LOUD
EXECUTIVE DIRECTOR

“Take Care was created as an emergency response effort built specifically to eliminate food waste and serve the most marginalized populations affected by COVID in the Central Valley. The funding from the ReFED grant came at the most crucial moment for our program. Without the ReFED grant, we wouldn’t have been able to scale and eventually turn the program into a CARES-funded initiative that was able to serve more than one million meals over the course of 2020. Working with the ReFED team was one of the best experiences with funders we have ever had. They saw the need and met it head-on with urgency and great humanity.”

CHANNELLE A. CHAREST
BITWISE INDUSTRIES
CHIEF OPERATIONS OFFICER

Learn more about the Fund and see the Grantees-in-action
Refocus

“We recognize that the needs of our communities and nonprofit partners shifted dramatically in 2020. We remain focused on eliminating the additional strain that COVID-19 has created for families struggling with unemployment and food insecurity, and we know that knowledge and collaboration are imperative tools on this urgent mission. That’s why we’re incredibly proud to be the anchor funder of ReFED’s new Insights Engine — a tool we believe will empower all sectors of the food system to take meaningful action to end the disparity between hunger and waste in America.”

SUNNY REELHORN PARR
THE KROGER CO. ZERO HUNGER | ZERO WASTE FOUNDATION
EXECUTIVE DIRECTOR
ReFED FUNDER
A Pathway to Action:
The Development of the ReFED Insights Engine and
Roadmap to 2030:
Reducing U.S Food Waste

Our primary objective for 2020 was the
development of the ReFED Insights Engine and our
accompanying Roadmap to 2030 in order to lay the
foundation for action towards achieving our 2030
national and international goal of reducing food
waste by 50%.

Take a deep dive to explore the ideation behind
this platform and the role ReFED envisions it
playing for the sector at large.

WHAT IS THE INSIGHTS ENGINE & ROADMAP TO 2030
AND WHY DID WE DEVELOP THIS?

In 2016, ReFED launched its landmark Roadmap to Reduce U.S. Food Waste by 20 Percent, which
soon became a touchstone for those in the food waste space. While that initial report filled a
critical need for information in the space, the field has continued to rapidly evolve and there has
since been an ever-increasing need for more granular and robust data about the issue to fill in
knowledge gaps and arm decision makers with the information they need to take meaningful,
prioritized action. ReFED set out to develop a dynamic and interactive platform, offering more
extensive analyses, more customized views, and the ability to be updated regularly.

The newly developed ReFED Insights Engine is the next generation of data, insights, and guidance
on U.S. food waste. This online data and solutions hub for food loss and waste is designed to
provide anyone interested in food waste reduction with the information and insights they need
to take purposeful action to address the problem and move a step forward towards achieving
national and international goals of reducing food waste by 50% by 2030. Importantly, the digital,
continuously updated nature of the platform means that users can have current information at
their fingertips in a way that ReFED’s original printed Roadmap wasn’t able to provide.

To guide action across the food system, ReFED has also created a framework for implementing the
solutions in the Insights Engine in its new Roadmap to 2030: Reducing U.S. Food Waste by 50%. The
Roadmap to 2030 looks at the entire food supply chain and outlines seven key action areas with
recommended priorities recommended priorities to help guide the food system in its food waste
reduction efforts over the next ten years. It also provides a detailed financial analysis to help
direct the public, private, and philanthropic capital investments needed to fund these efforts. In
line with the Target-Measure-Act framework for food waste reduction that’s been adopted around
the world, the Roadmap to 2030 is a comprehensive blueprint to help the food system to action
towards our collective goal of a 50% reduction in food waste by 2030.
WHO CAN BENEFIT FROM USING THESE RESOURCES?

From corporate CEOs to data-savvy analysts working for businesses, to governments and investors, the Insights Engine has something to offer everyone — making information quickly attainable and providing specific direction on which actions food system players should take to achieve our collective goal, featuring:

**FOOD WASTE MONITOR**
A centralized repository of information built with data from more than 50 public and proprietary datasets and providing granular estimates of how much food goes uneaten in the U.S., why it’s happening, and where it goes.

**SOLUTIONS DATABASE**
A stakeholder-specific, comprehensive cost-benefit analysis of 40+ food waste reduction solutions based on impact goals (diversion potential, financial, environmental, etc.), plus detailed fact sheets on each.

**SOLUTION PROVIDER DIRECTORY**
A vetted list of 700+ nonprofit and for-profit organizations ready to help implement food waste reduction initiatives.

**IMPACT CALCULATOR**
A special resource that quantifies the impact of specific amounts of wasted food on the climate, natural resources, lost meals, and the economy.

Special thank you to the following ReFED contractual partners for their support in the development of these tools:

**DELOITTE**
**JUNIATA ANALYTICS**

**OCUPOP**
**NIelsen**

**QUANTIS INTERNATIONAL**
**VIZUALITY**

Launch the Insights Engine
Our Organization

THE TEAM

The nationwide lockdown of businesses and workplaces that was implemented to curb the spread of the virus generated a wide array of unique and fundamental strains for both employees and employers across the country – but as a 100% virtual team, we were already well-versed in Zoom etiquette and staying connected despite not working in the same physical location.

And as our mission continues to grow, so has our team. We welcomed a number of new staff over the past year, all of whom have been instrumental in enhancing ReFED's work. Together, we bring a diverse blend of expertise and experience in food business strategy and sustainability, innovation, finance, data analytics, research, agricultural development, and communications — united by our unwavering commitment to achieve a sustainable, resilient, and inclusive food system.

2020 Financials

INCOME
- Contributions & Grants (Restricted) 26%
- Contributions & Grants (Unrestricted) 20%
- Contributions & Grants (COVID-19 Fund) 48%
- Program Revenue 6%

$7.3M

EXPENSES
- Administration 7%
- Fundraising 5%
- Programs 37%
- COVID-19 Grants 51%

$6.9M
OUR BOARD
This year marked an exciting maturation point for our Board, who continue to share their multidisciplinary expertise, making valuable contributions that position ReFED to deliver and scale its impact. After two years at the helm, Jesse Fink ended his term as ReFED’s Founding Board Chair, but he remains an active Board member and Chair of the Development Committee. He is succeeded by Nicola Dixon, Executive Director of the General Mills Foundation, as Board Chair.

Nicola Dixon
Chair, ReFED Board of Directors
Executive Director, General Mills Foundation

Steven Swartz
Treasurer, ReFED
Board of Directors
Chief Strategy Officer, The Wonderful Company

Ed Romero
Secretary, ReFED
Board of Directors
President and CEO, Hana Group

Jesse Fink
Non-Executive Chairman and Co-Founder, MissionPoint Partners Trustee, Fink Family Foundation

ReFED also welcomed three new Board members — Stacey Greene-Koehnke, Chief Operations Officer for the Atlanta Community Food Bank; Emily Ma, Head, Food for Good, Google; and Charles C. Savitt. Additionally, the Board appointed Steve Swartz, Chief Strategy Officer of The Wonderful Company, as the new Board Treasurer, and Eduardo Romero, President and CEO at Hana Group, as the new Board Secretary. Rob Kaplan, Founder and CEO of Circulate Capital, retired from the Board after serving as one of ReFED’s Founding Board Members.

Stacey Greene-Koehnke
Chief Operations Officer, Atlanta Community Food Bank

Emily Ma
Head, Food for Good, Google

Charles C. Savitt
Director of Strategic Client Relationships, Sher Edling LLP
Trustee and Treasurer, The Windward Fund

Yalmaz Siddiqui
Vice President Corporate Sustainability, MGM Resorts International

OUR ADVISORY COUNCIL
ReFED’s strength has long rested in the power of the people who surround, advise, and contribute to our work. The Advisory Council is a group of thought leaders helping to provide expert input to ReFED’s priority programs and long-term strategy.

Dr. Jonathan Foley
Executive Director, Project Drawdown

Elise Golan
Director for Sustainable Development, U.S. Department of Agriculture

Ami McReynolds
Chief Equity and Programs Officer, Feeding America

Milen Mahadevan
Chief Operating Officer, 84.51*

Tejal Mody
Managing Director, Rabobank

Susan Robinson
Senior Director of Sustainability, Waste Management

Jigar Shah
Co-Founder and President, Generate Capital

Ryan Shadrick Wilson
Founder, Boardwalk Collective LLC

Dr. Liz Goodwin OBE
Senior Fellow and Director, Food Loss and Waste, World Resources Institute

Andrew Shakman
Chief Executive Officer and Co-Founder, LeanPath
Ways to Engage with ReFED

Help ReFED create a more sustainable, resilient, and inclusive food system:

**EXPLORE THE INSIGHTS ENGINE AND ROADMAP TO 2030**
The ReFED Insights Engine and Roadmap to 2030 provide anyone interested in food waste reduction with the information they need to take meaningful action.

[LEARN MORE](#)

**BECOME A FUNDER**
Your support and contributions sustain ReFED as a critical resource to accelerate purposeful action in addressing the food waste problem. To learn how you can support our mission, please email us at development@refed.com.

[LEARN MORE](#)

**JOIN OUR EXPERT NETWORK**
The ReFED Expert Network is a group of over 60 experts who share their food system knowledge and time on key projects at ReFED, as well as connect with, teach, and learn from their Expert Network peers.

[LEARN MORE](#)

**EXPLORE OUR RESOURCES AND GUIDES**
ReFED offers a range of solutions for organizations to advance their own food waste initiatives. Our interactive tools, reports, and strategic solutions can help your team get started.

[LEARN MORE](#)

**ENGAGE ReFED AS AN ADVISOR**
Find out how you can engage ReFED as an advisor on a dedicated, confidential, in-kind or fee-for-service project.

[LEARN MORE](#)

---

Follow Us on Social Media

Twitter | @ReFED
Linkedin | @ReFED

For more ways to get involved, email us at info@refed.com
“The U.S. produces more than enough food to nourish our entire population, yet waste in the supply chain continues to inhibit our ability to do so. What is so powerful about our industry’s collective mission is how it very tangibly sits at the intersection of hunger relief, climate change, and food justice. Consistent and equitable access to affordable and nutritious food is a basic human right, and it should never stand in the way of allowing our population to innovate and thrive. The more we can do as an industry to create dynamic and interconnected food systems, the closer we will get to building a nation with increasing access to affordable nutrition, a decreasing number of food deserts, and a more promising outlook for those experiencing food insecurity.”

RICKY ASHENFELTER
SPOILER ALERT
CO-FOUNDER & CEO
ReFED EXPERT NETWORK MEMBER
Our Funders

The movement for food waste reduction is at a tipping point. We are very grateful to the many funders and partners who have generously supported the implementation, advancement, and growth of our organization to be a galvanizing force for the sector and enable us to scale our impact.

AJANA FOUNDATION
ARJAY & FRANCES F. MILLER FOUNDATION
ATTICUS TRUST

THE HINDAWI FOUNDATION
KENNETH GOLDMAN DONOR FUND

PETER WELLES

ANONYMOUS DONOR (2)

The ReFED COVID-19 Food Waste Solutions Fund Donors:

We are very appreciative of the many donors who contributed the just-in-time capital needed during COVID-19. Through a generous gift from Betsy & Jesse Fink and an anonymous donor that covered the Fund’s administration costs, 100 percent of each donation went where it was needed most.

AJANA FOUNDATION
ATTICUS TRUST
CAERUS FOUNDATION, INC.
CROWN FAMILY PHILANTHROPIES
FINK FAMILY FOUNDATION
FOOD AND NUTRITION RESOURCES FOUNDATION, INC.
HOWARD AND GERALDINE POLINGER FAMILY FOUNDATION
JOSIE MERCK
JUNE & PAUL ROSSETTI
PETER WELLES

Ajanta Singh
Allie Wist
Amanda Jones
Amy Theobald
Barbara Brabetz
Cindy Angerhofer
Cody Hazen
Donna Wine
Edin Golomb
Elizabeth Cheek
Elisa Massenzio

Ellen Capy
Eric B.
Frances Adams
Harry Hayman
Helen Foster
Ida Posner
Ilana Polster
Jennifer Nolley
John Heimbach
John Ryan
Julie Ungerecht

Kelly Gogerty
Lindsay Frazier
Lisa Holmes
Loida Wexler
Marc Silver
Marjorie Adams
Mitchell Weiss
M. Henderson
Natalie Valentín
Oksana Ostrovsky
Patricia Clifford

Rich Guard
Sandra Boston
Sharon Tufaro
Shauna Turnbull
Shreema Mehta
Sue Miller
Terri Anderson
Tony Pearson
Vivian Kasen
Warren Adams
Anonymous (20)

*The views expressed herein do not necessarily represent those of The Kroger Co. Zero Hunger | Zero Waste Foundation or The Kroger Co.