



Community
Environmental
Council

Bold Climate Action
Acción Climática Audaz

Feeding Communities in a Crisis:

Weaving together our efforts for food
security, community resilience, and
decarbonization



LEADING
ENVIRONMENTAL
ACTION ON THE
CA CENTRAL COAST
SINCE 1970



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Intersecting Issues

01

GREENHOUSE GAS EMISSIONS FROM THE
TRANSPORTATION OF FOOD

02

INSUFFICIENT LOCAL FOOD SYSTEMS IN
PREDOMINANTLY AGRICULTURAL AREAS

03

LACK OF FOOD SYSTEM RESILIENCY IN THE
CASE OF A NATURAL DISASTER

04

INADEQUATE COLLABORATION &
NETWORK BUILDING TO FEED
COMMUNITIES IN A CRISIS



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The Main Themes

- **Advancing** a communities' climate action, food access, & resilience goals with sustainable food management programs
- **Decarbonizing** food systems with solutions that improve food access and community resilience
- **Acknowledging** tensions between GHG emissions reductions, resilience, and food access benefits



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The Goal

Spark a larger conversation that will lead to:

- Collaboration
- Innovation
- Greater community benefits
- Increased food security
- Decreased food waste
- Enhanced food system resilience during disaster events
- GHG emission reductions
- Education & workforce development

The Panel

Moderator

**Cristina
Czochanski**



**Food & Energy Associate,
Community
Environmental Council**

Speaker

**Jonathan
Tan**



**Co-Founder,
Ratio Institute**

Speaker

Shelby Wild



**Founder and Executive
Director, Route One
Farmers Market**

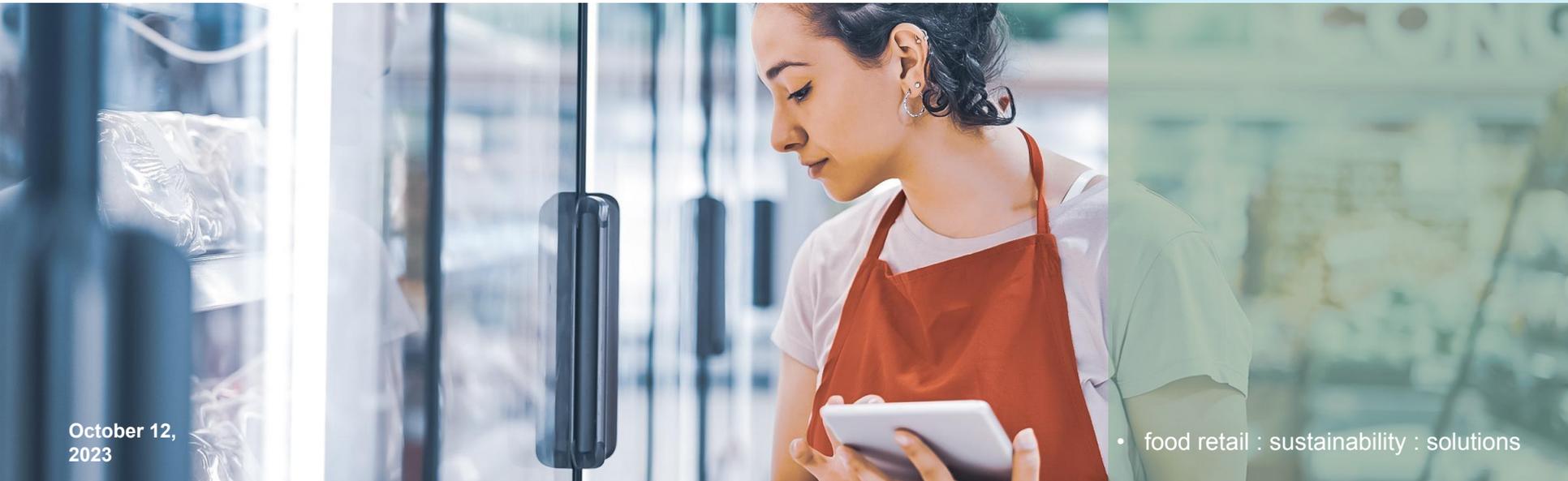
Speaker

**Monica
White**



**Advisory Board Member,
Abound Food Care**

Food Retail & Sustainability



October 12,
2023

• food retail : sustainability : solutions



About Ratio Institute

Ratio Institute is an independent, non-profit organization dedicated to accelerating measurable sustainability and success in food retail through expert collaboration, industry resources, and practical tools.

We have worked with over 1,000 grocery stores and 20 grocery chains to create store-level and regional sustainability solutions that reduce costs, shift internal cultures, and improve overall performance.

We believe food retail is uniquely positioned to make a positive impact, and that's why we've made it our mission to leverage the power of the industry's collective expertise and influence. Together, we can lead the way to a more sustainable, and more viable, future for everyone.

Ratio Institute is a project of Ecology Action.



Our Team



Peter Cooke

Peter comes to Ratio Institute with over 20 years of experience developing sustainability programs, including starting one of the nation's first green hotel programs. That success led Peter to develop a similar program for Hannaford, New England's largest grocery chain. Later, at Manomet, a sustainability non-profit, Peter founded the Grocery Stewardship Certification (GSC) Program in 2012.



Jonathan Tan

Jonathan brings to Ratio Institute more than 20 years of experience as an entrepreneur and a business executive for both Fortune 500 and privately held companies. His career began with driving energy efficiency at food manufacturing and food packaging plants. He transitioned to energy-efficiency work at food retail outlets in the early 2000's, focusing on refrigeration, HVAC, and lighting.



Courtney Dragiff

Courtney joins Ratio Institute with over a decade of experience in land conservation and water management. After receiving an M.S. in International Sustainable Development and Climate Change, she helped develop Ratio's suite of ESG reporting tools. She now focuses on circular economies and operational efficiency within the food retail industry.





Our Mission

To accelerate viability and measurable sustainability in food retail through expert collaboration, industry resources, and practical tools.



Our Resources



Learn more at ratioinstitute.org

Agribusiness 404: Retail Management



Setting the Stage

Jonathan Tan from Ratio Institute presented to Dr. Ricky Volpe's class on the business case for sustainability in food retail and explained the methodology of the Sustainable Food Retail Certification.

In-store Student Training

Students walked a store with Ratio Institute to learn how to complete the Certification and identify certain types of hardware.

Independent Student Visits

Student groups, organized by Dr. Volpe, visited 6 San Luis Obispo locations.

Final Report for Retailers

Each student group compiled a summary report for the retailer their group visited. This included the current and potential value of sustainability opportunities at the store.

Food Retail: The Nexus



Nexus of Sustainability

- ✓ 10% of US Retail GDP
- ✓ 25% of all retail jobs (~11 million)
- ✓ Industry Net Income ~1.58%
- ✓ Largest supply chain of all industries
- ✓ Most visited



Nexus of Sustainability

- ✓ **Energy:** Largest commercial building energy use
- ✓ **Refrigerants:** Largest commercial producer of fugitive GHG emissions
- ✓ **Food Waste:** Half of food produced lost or wasted before purchase
- ✓ **Plastics:** Largest source of single use plastic packaging
- ✓ **Transport Emissions:** 20% of global emissions transporting food



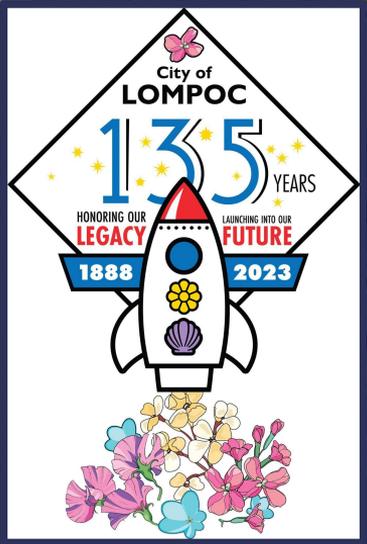
ROUTE ONE FARMERS MARKET

Local Food as a Solution



March 2023







- More than 720,000 acres
 - over 130,000 grows fruits, vegetables and nuts
- 12th in the State for Ag production

\$1.9 BILLION

Value of Agricultural Production
in Santa Barbara County in 2022



- Over 90% of the food grown in Santa Barbara Co is shipped outside

- Food transport accounts for 20% of ALL CARBON emissions in the Global Food System



Our Region In a Crises

Limited local food system leads to:

- Freeway closures halt deliveries
 - Empty Store Shelves
- Food abandoned in fields
 - Farmers loose revenue



Farmers Markets as A Solution



Economic and Environmental Impacts

- **\$100 million** in federal nutrition benefits redeemed in 2021
- Route One has facilitated the sale of **\$1,000,000 in local goods** and redeemed over **\$40,000 in Government Incentives in Lompoc**
- 78% of farms sold food **within a 100-mile radius** of the farm.
- Farmers markets lead to the adoption of **more sustainable farming practices**

...But not always THE Solution

Major Barriers to Shopping at Markets Include:

- Transportation
- Languages served
- Limited Hours
- 'Who is Invited'
- Fear of Incentives not accepted
- Assumption of 'Cash Only'

With intention, we can break down many barriers, but some remain...



Mobile Markets, Breaking Down Barriers and Expanding our Ability to Serve Community

Ability to adapt to changing needs/in times of emergency

The Ca Mobile Market Coalition defines a mobile farmers' market as an essential and equitable solution to food access. Although the Coalition understands that all communities have unique needs, the main components of a mobile market program include supporting the local food economy by purchasing from local farmers using sustainable practices and prioritizing the food preferences of the community whenever possible. Mobile farmers' markets operate with the goal to serve areas that otherwise don't have access to locally-grown, nutritious food.





MOBILE MARKET SCHEDULE



SPRING 2023

COME FIND US AT THESE LOCATIONS!



Mondays, 1:00pm to 3:00pm
 Santa Barbara County Public Health:
 Lompoc Health Care Center
 301 North R St, Lompoc, CA 93436
Tuesdays, 12:00pm to 1:30pm
 Lompoc Valley Medical Center
 Ocean Ave & 7th St, Lompoc CA 93436
Tuesdays, 4:00pm to 6:00pm
 Lompoc High School
 Main Parking Lot
 515 W College Ave, Lompoc, CA 93436

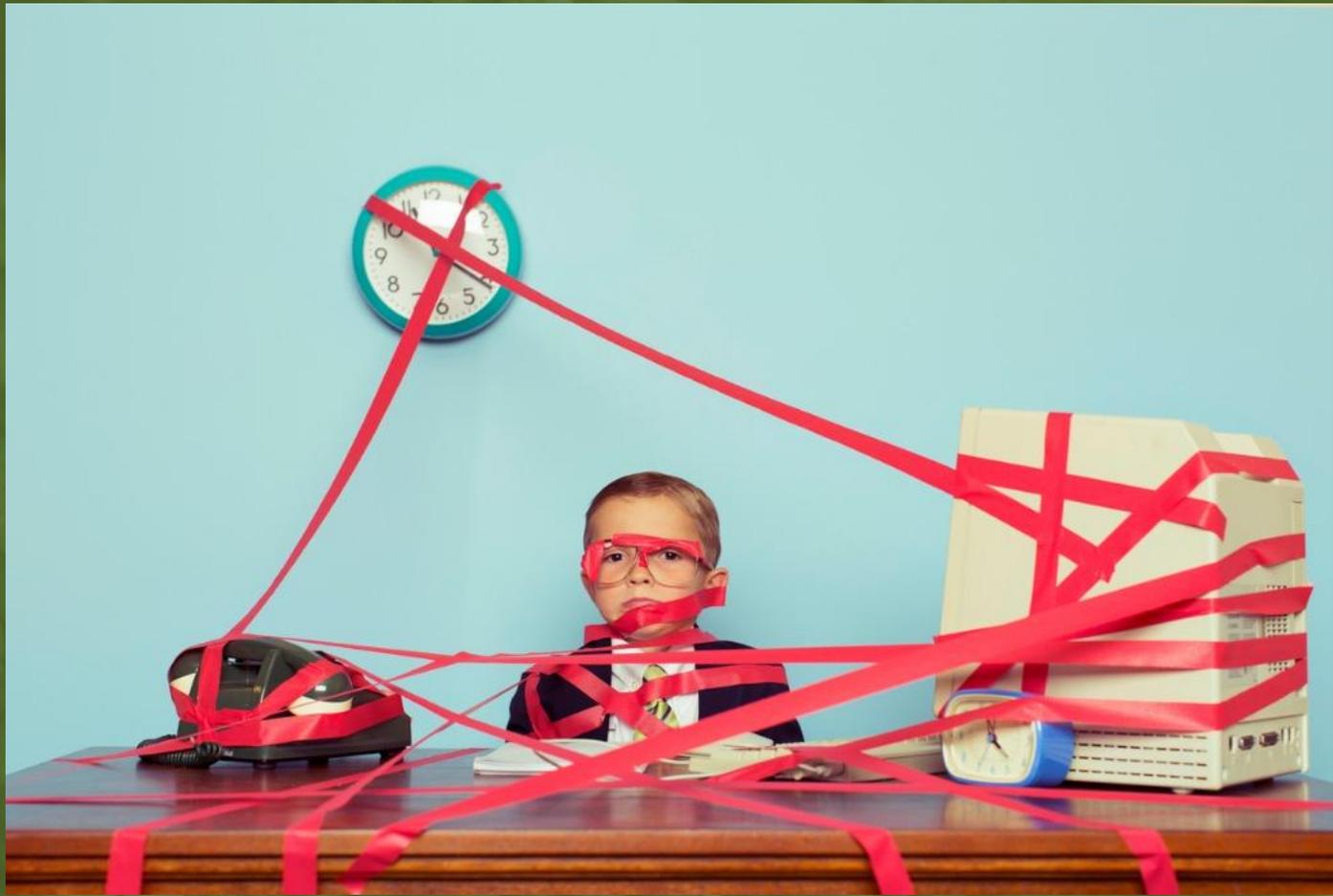
Thursdays, 10:00am to 12:00pm
 Santa Barbara County Public Health:
 Lompoc Health Care Center
 301 North R St, Lompoc, CA 93436
Thursdays, 2:00pm to 5:00pm
 Mission Hills Shopping Center
 Burton Mesa Blvd & Rucker Rd, Mission Hills, CA 93436
Fridays, 5:00pm to 8:00pm
 Food Truck Fridays
 Sissy's Parking Lot
 112 South I St, Lompoc, CA 93436

FRESH FRUITS & VEGETABLES DIRECT FROM LOMPOC AREA FARMS

For more information, please visit
www.routeonefarmersmarket.org/mobile-market
 or follow us on Instagram @route1farmersmarket



Route One Farmer's Market Video





Shelby Wild
Executive Director
Route One Farmers Market
info@routeonefarmersmarket.org



Feeding Communities in a Crisis



The power of collaboration



Abound Food Care

1 in 9

Americans are food insecure

Source: United States Department of Agriculture

30-40%

of all food produced ends up
in being wasted

Source: United States Department of Agriculture



Abound Food Care

The impact of food waste



119 billion pounds of food is wasted every year



\$408 Billion worth of food is thrown away every year



Enough water and energy to supply more than 50 million homes



Greenhouse gas emissions of more than 42 coal-fired power plants



170 million metric tons of carbon dioxide equivalent greenhouse gas emissions

Source: United States Environmental Protection Agency
United States Department of Agriculture

Social Determinants of Health



Socioeconomic Factors

- Education
- Job Status
- Family Social Support
- Income
- Community Safety

Physical Environment



Health Behaviors

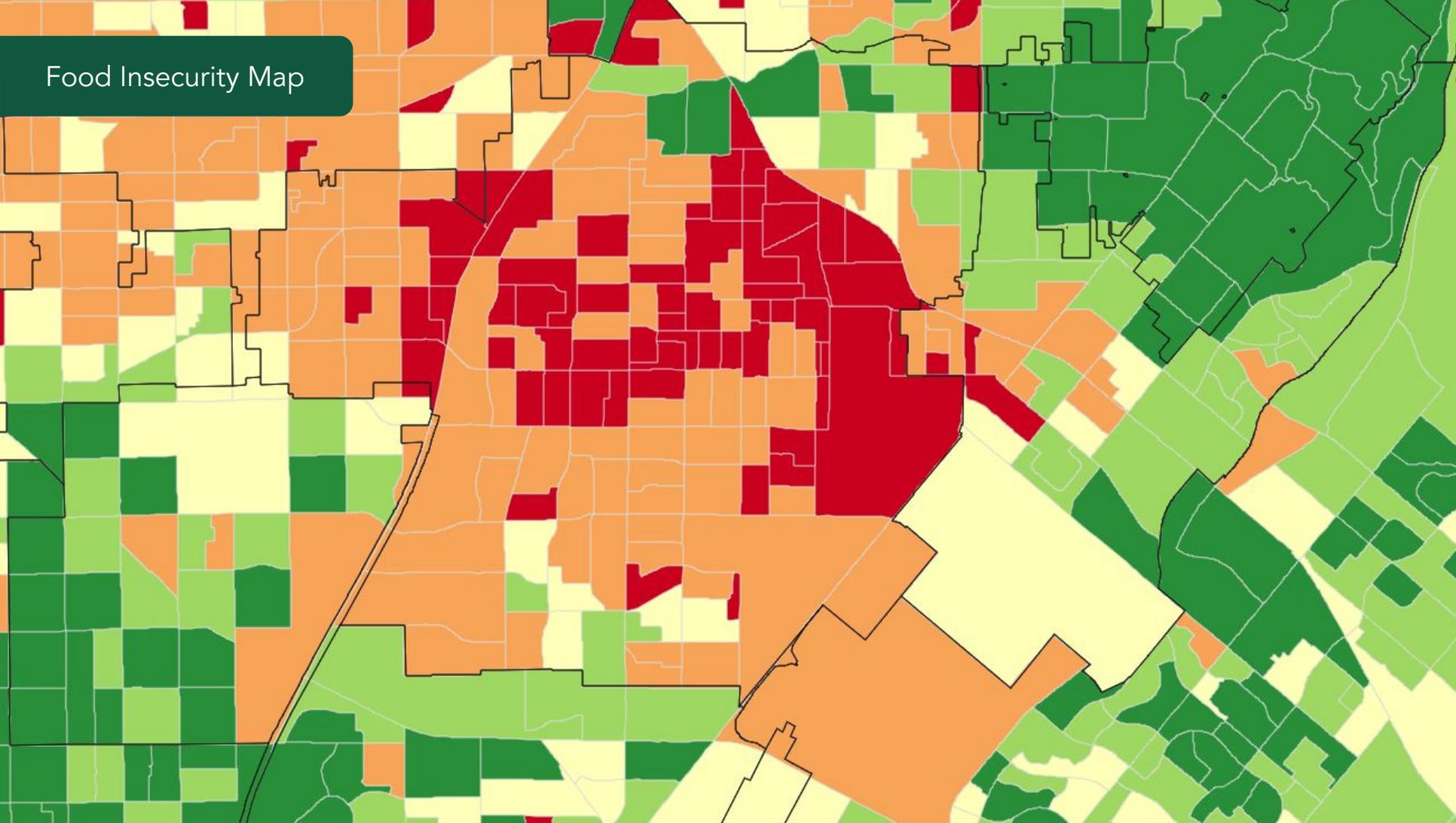
- Tobacco Use
- Diet & Exercise
- Alcohol Use
- Sexual Activity

Health Care



Access to Care
Quality of Care

Food Insecurity Map



Challenges

when disaster strikes



Displaced Community
Members



Food Supply Disruption



Lead Time for National
Response





A new model: Emergency Meal Programs



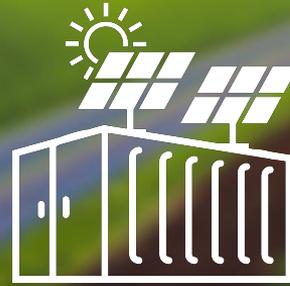
Food
Recovery



Repurposing
Kitchens



Ready-to-
Eat Meals



Cold Storage
Unit



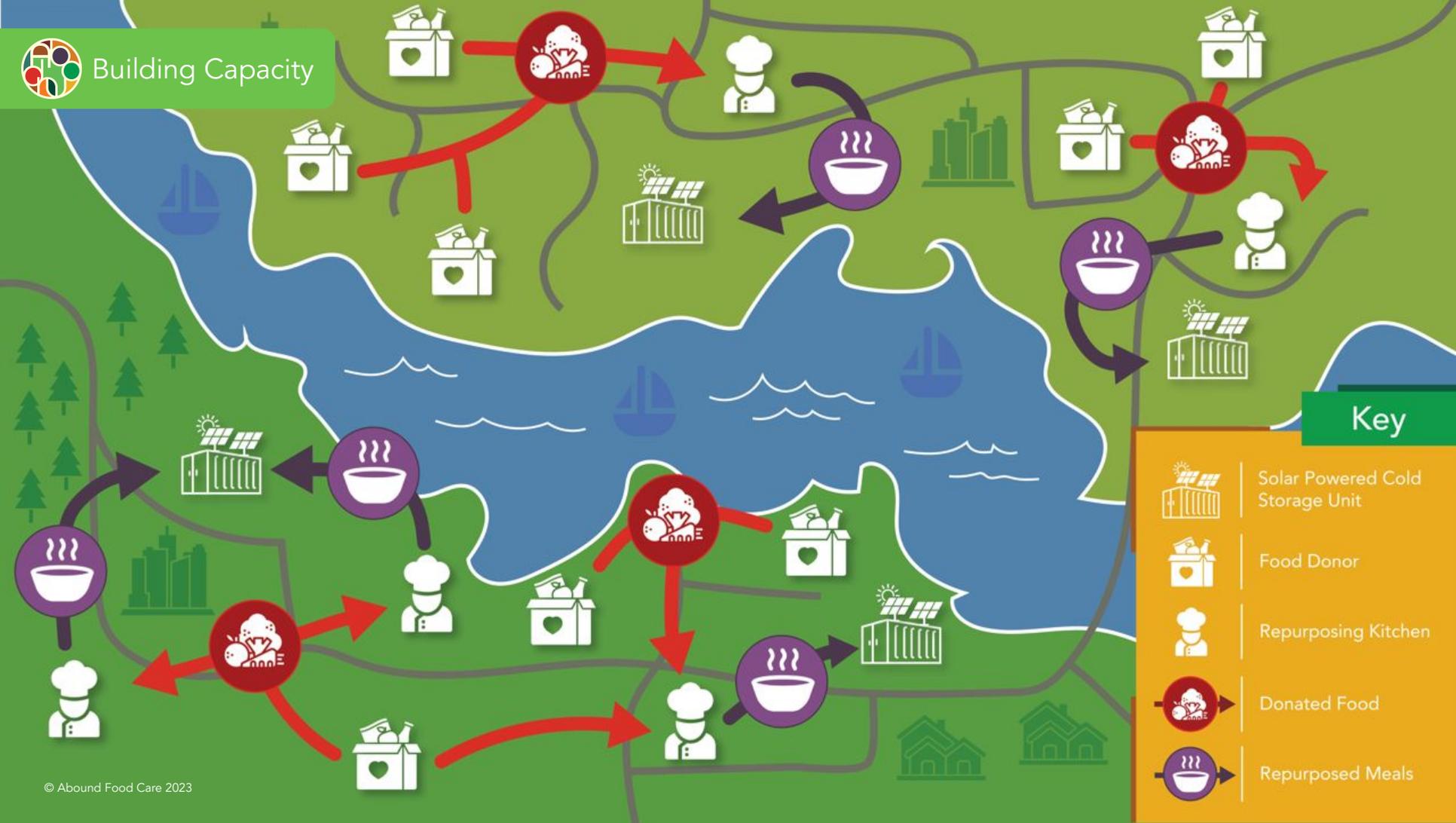
Feed In
Crisis

Maximizing the utilization of excess edible food





Building Capacity



Key



Solar Powered Cold Storage Unit



Food Donor



Repurposing Kitchen



Donated Food



Repurposed Meals

Providing food when it is needed most



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Distribution



Key



Solar Powered Cold Storage Unit



Food Pantry



Emergency Distribution



Emergency Meals



Donated Meals

Food is the Hub of Health



Abound Food Care



Building Thriving Communities



Reduce Food Waste



Create Jobs



Reduce Hunger



Key Takeaways

1



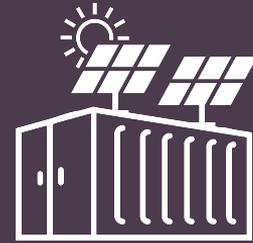
During an emergency, food insecurity goes up, creating a need for nutritious meals

2



Emergency Meal Programs not only feed the community, but significantly reduce food waste

3



Unique tools such as Solar Powered Refrigeration Units and Repurposing Kitchens are used to enable regional programs

Join the Food Care movement

Scan me!



Abound Food Care™

657.335.4480

Follow us on:



@aboundfoodcare

Food Retail: By the Numbers



Business Case for Operational Sustainability

Cost Saving Potential

Every \$1 saved with energy efficiency is equal to \$18 in revenue.*

\$1

Operating Costs

- Electricity
- Maintenance
- Labor
- Rent
- Water
- Advertising
- Etc.

Energy Efficiency



\$18

Revenue

- Sales
- Recycling
- Efficiency



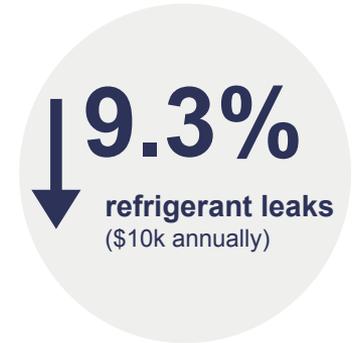


There is an opportunity for increased market share by having an ESG proposition.



What is *your view* on the value it can bring and how to communicate this?

Value of Sustainability and Resiliency



Assessment to Certification

- ✓ Store Leaders trained on operational sustainability
- ✓ Systemized approach to operational sustainability
- ✓ Identify areas to save money opportunities to reduce impact
- ✓ Enterprise Report highlighting financial benefits of efficiency
- ✓ Ongoing implementation support at rzptsupport@ratioinstitute.org



Thank You Q & A

