Feeding Communities in a Crisis:

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

1. **Greenhouse Gas Emissions from the Transportation of Food**
2. **Insufficient Local Food Systems in Predominantly Agricultural Areas**
3. **Lack of Food System Resiliency in the Case of a Natural Disaster**
4. **Inadequate Collaboration & Network Building to Feed Communities in a Crisis**
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
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
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.
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.

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.
Our Mission

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

sustainable food retail certification

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
Local Food as a Solution
Value of Agricultural Production in Santa Barbara County in 2022

$1.9 BILLION

- More than 720,000 acres
- Over 130,000 grows fruits, vegetables and nuts
- 12th in the State for Ag production
• 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 lose 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 1 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

Private Industry

Public sector

Non-profit organizations
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
The impact of food waste

119 billion pounds of food is wasted every year

Enough water and energy to supply more than 50 million homes

$408 Billion worth of food is thrown away every year

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

Source: Institute for Clinical Systems Improvement, Going Beyond Clinical Walls: Solving Complex Problems (October 2014)
Challenges when disaster strikes

- Displaced Community Members
- Food Supply Disruption
- Lead Time for National Response
A new model:
Emergency Meal Programs
Maximizing the utilization of excess edible food
Providing food when it is needed most
Food is the Hub of Health
During an emergency, food insecurity goes up, creating a need for nutritious meals.

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

Unique tools such as Solar Powered Refrigeration Units and Repurposing Kitchens are used to enable regional programs.
Join the Food Care movement

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.*

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

Energy Efficiency

Revenue
- Sales
- Recycling
- Efficiency

Supermarkets: An Overview of Energy Use and Energy Efficiency Opportunities- EnergyStar
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

- **55%** GHG emissions
- **56%** to landfills (= 44,554 tons)
- **21%** energy per ft$^2$ since 2008 ($66k$ annually)
- **9.3%** refrigerant leaks ($10k$ annually)
Assessment to Certification

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

Q & A