

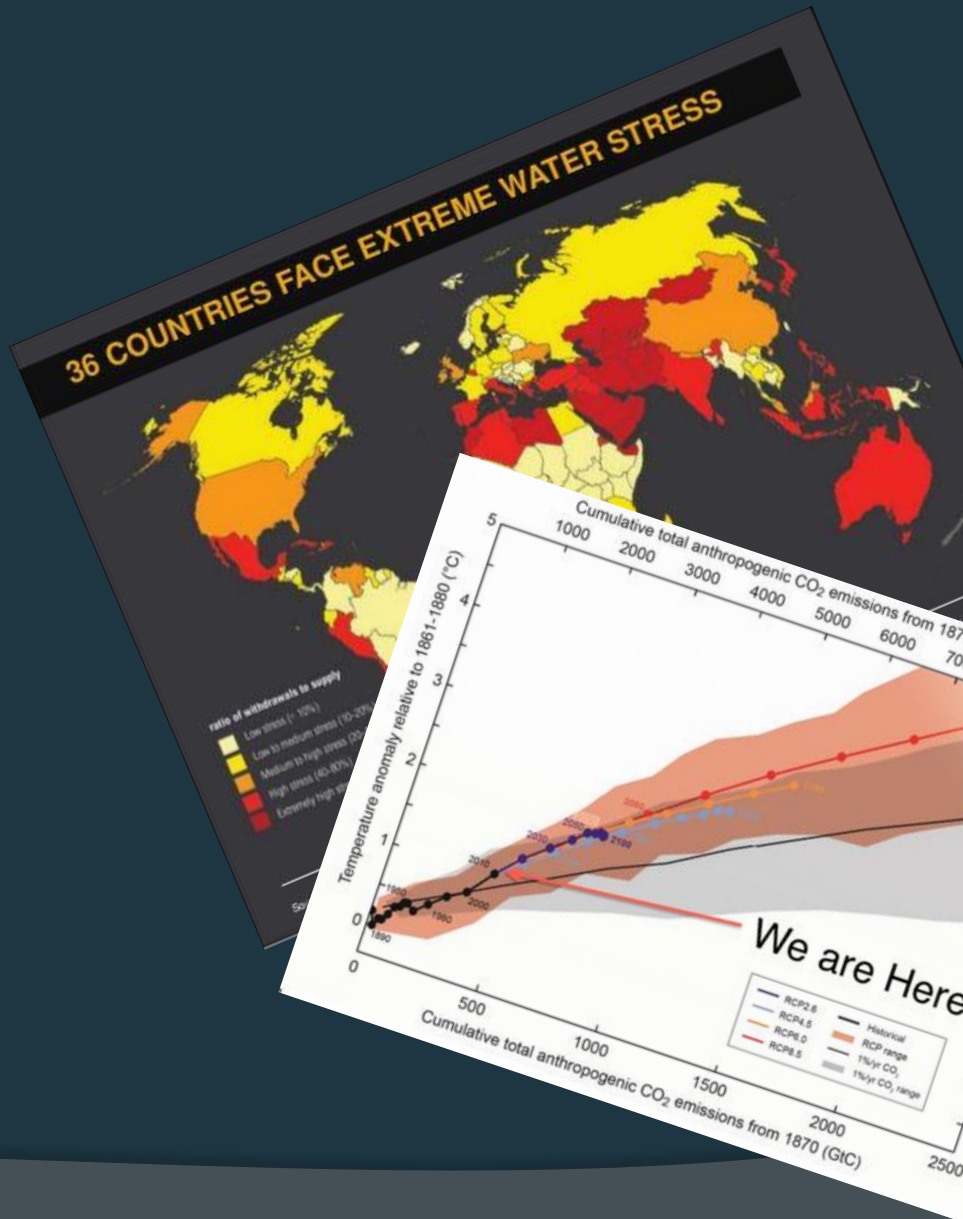
Zero Food Waste: Why It Matters, And How You Can Help



Sue Barns, May 12, 2019

UU Church Forum: "Different Sciences Help Solve Global Problems"

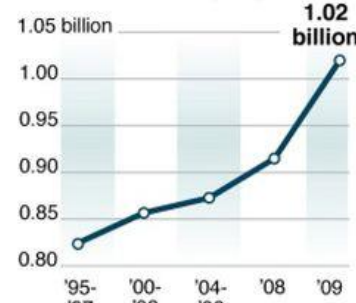
Why Care about Food Waste?



Global hunger on the rise

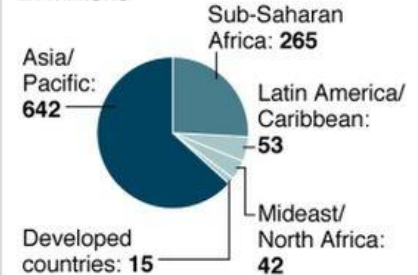
The number of undernourished people in the world surpassed 1 billion, according to a U.N. report released Wednesday.

Undernourished people



Regional breakdown

In millions



SOURCE: Food and Agriculture Organization of the United Nations

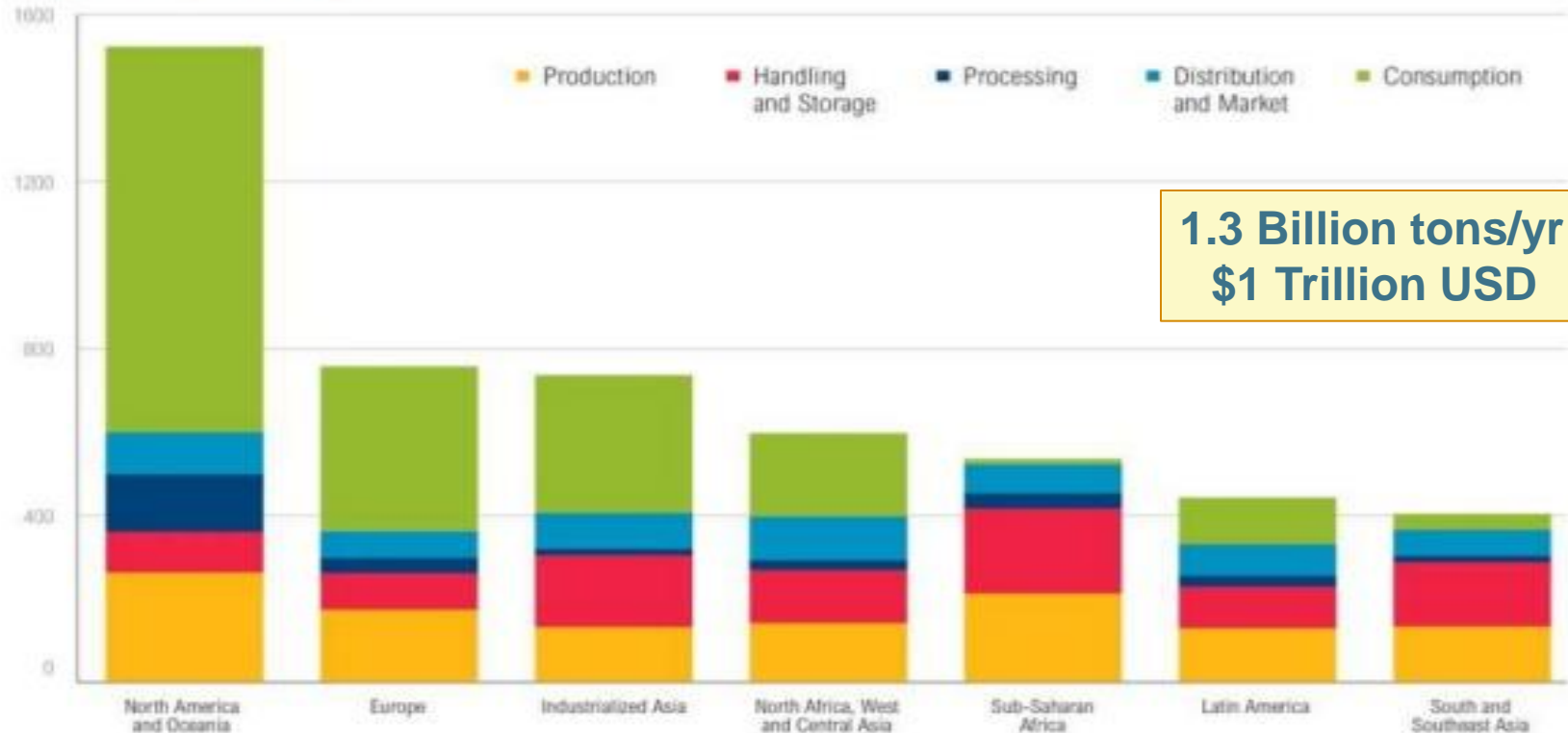
AP



Food Waste: Global

North America and Oceania have the highest per capita food loss and waste, primarily occurring at consumption

Kcal/capita/day



Note: Numbers may not sum to 100 due to rounding.

Source: WRI analysis based on FAO, 2011. Global food losses and food waste—extent, causes and prevention. Rome: FAO.

 **WORLD RESOURCES INSTITUTE**

Globally, 1/3 of food grown is wasted

FOOD WASTE IN THE U.S. IS...

EXCESSIVE

40%

OF ALL FOOD PRODUCED
IN THE U.S. IS WASTED



133 BILLION
POUNDS

Food wasted per year.
That represents 1,249
calories per person, per day.

EXPENSIVE



\$161 BILLION

Uneaten food at retailers,
restaurants, and homes
costs \$161 billion annually



\$1,500

Per capita, this amounts
to over \$1,500 for a
family of four



*In 2018, Los Alamos
residents sent*

**1,740,000
POUNDS OF
FOOD WASTE
TO THE
LANDFILL**

**This included over
1 TON of EDIBLE food per
day, 435 tons per year**



**FOOD
WASTE
IN LOS
ALAMOS**

Yep, we waste food too

**In 2018, LAC spent
\$1.2 million
on a methane
extraction system
for our closed
landfill**



*Food waste in landfills is a major source
of methane, a toxic greenhouse gas*

Food Waste: Personal



- 25% of food purchased is thrown away
- 300-400# per person/year; 1#/person/day
- \$1350-\$2275 /family/year

\$150



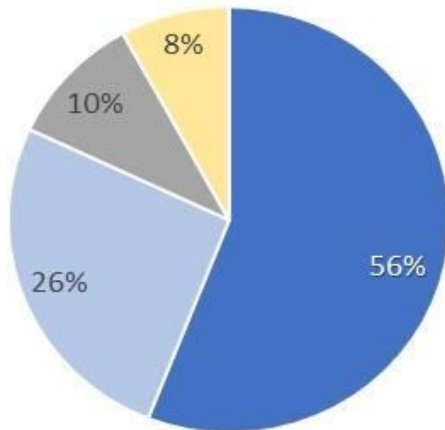
Impact: Resources

- ◎ Food waste squanders everything that goes into food production:
 - Labor, time, capital
 - Habitat destruction due to deforestation, mining, petroleum production, chemical run-off (fertilizers, manure, pesticides, herbicides)
 - species extinction (habitat loss, fishing by-catch)
 - agricultural materials (fertilizers, pesticides, herbicides)
 - processing, transport and sales (fuel, packaging, refrigeration)

Impact: Energy Use

Food Waste = Energy Waste

In the US, we waste
39.7 million tons of food
each year.



■ Residential ■ Restaurants ■ Grocery Stores ■ Institutions

The energy used to produce all that food
could power all of Switzerland
each year.



Sources:

University of Texas at Austin, Cockrell School of Engineering: www.engr.utexas.edu/features/research-45203/wastedfood

US EPA, Food: Material-Specific Data: www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/food-material-specific-data#FoodTableandGraph

US EPA, Food Waste Management in the US, 2014, Office of Resource Conservation & Recovery, December 2016: www.epa.gov/sites/production/files/2016-12/documents/food_waste_management_2014_12082016_508.pdf

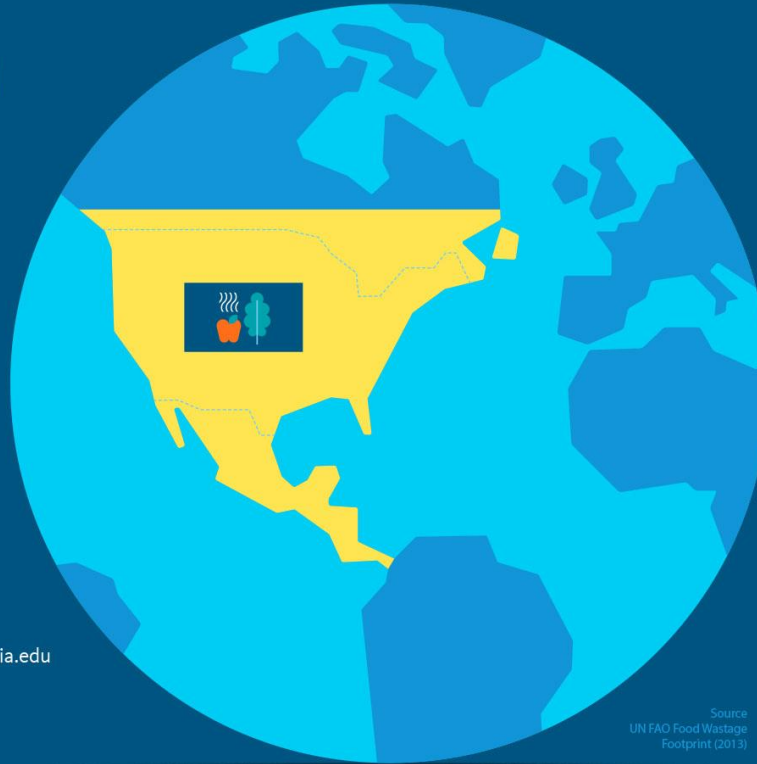
Impact: Land Use

How much land is used to produce food that never gets eaten?

The land devoted to producing wasted food would be the second largest country in the world by area, roughly 5.4 million square miles.

Learn more at
climate.universityofcalifornia.edu

UNIVERSITY
OF
CALIFORNIA



Source
UN FAO Food Waste
Footprint (2013)



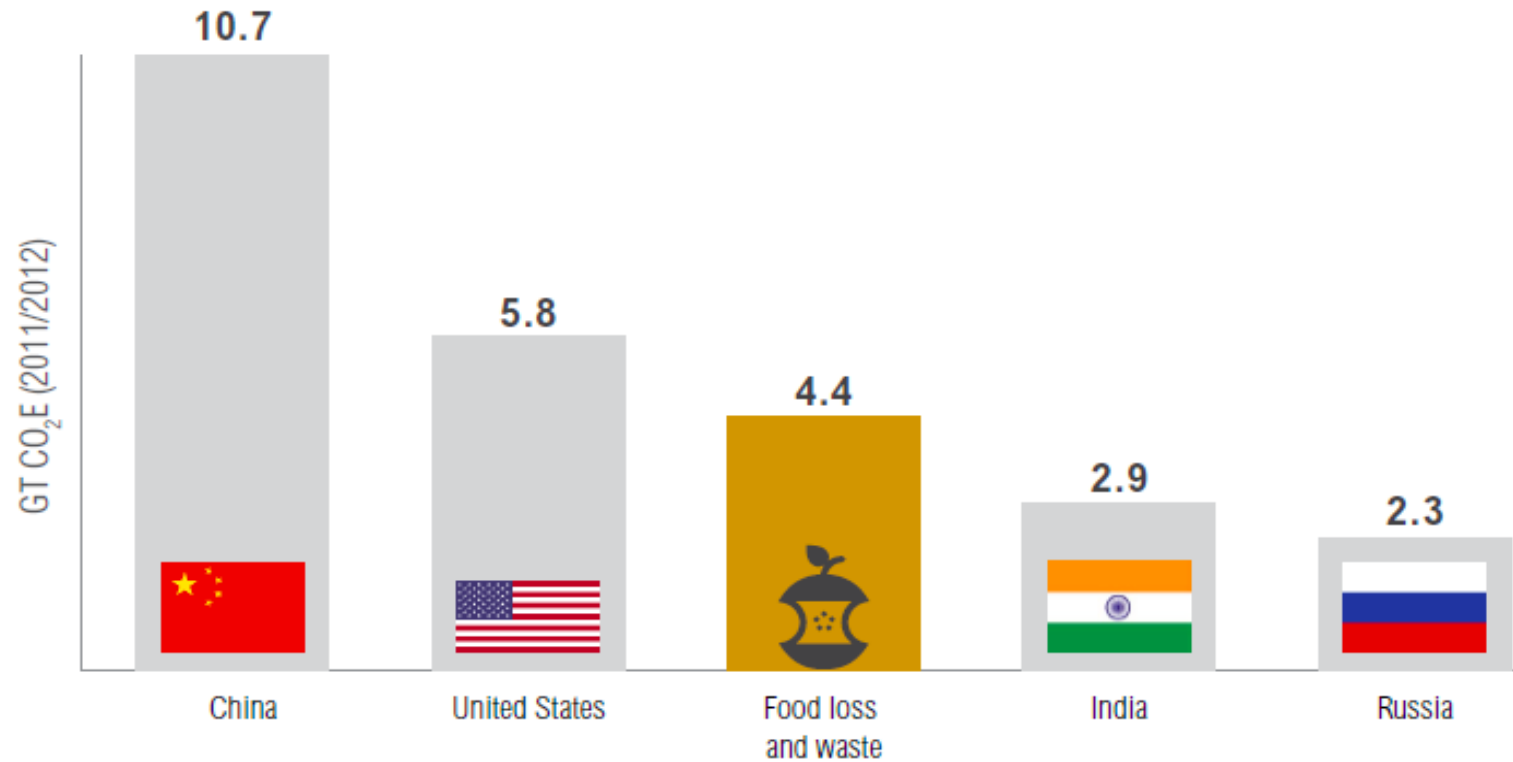
**Food waste consumes about 80 million
acres in U.S.**

Impact: Water

**Throwing out
1 pound of beef
wastes as much water
as taking a 5 hour shower.**

25% of our freshwater use goes to produce food that isn't eaten

Impact: Climate Change



Reducing wasted food ranks 3rd out of 100 for GHG reductions.

Rank	Solution	Sector	TOTAL ATMOSPHERIC CO ₂ -EQ REDUCTION (GT)	NET COST (BILLIONS US \$)	SAVINGS (BILLIONS US \$)
1	Refrigerant Management	Materials	89.74	N/A	\$-902.77
2	Wind Turbines (Onshore)	Electricity Generation	84.60	\$1,225.37	\$7,425.00
3	Reduced Food Waste	Food	70.53	N/A	N/A
4	Plant-Rich Diet	Food	66.11	N/A	N/A
5	Tropical Forests	Land Use	61.23	N/A	N/A
6	Educating Girls	Women and Girls	59.60	N/A	N/A
7	Family Planning	Women and Girls	59.60	N/A	N/A
8	Solar Farms	Electricity Generation	36.90	\$-80.60	\$5,023.84
9	Silvopasture	Food	31.19	\$41.59	\$699.37
10	Rooftop Solar	Electricity Generation	24.60	\$453.14	\$3,457.63

International Campaigns



12.3 “By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses”



UK, AU, Canada



Food Recovery Hierarchy

Most Preferred

Source Reduction

Reduce the volume of surplus food generated

Feed Hungry People

Donate extra food to food banks, soup kitchens, and shelters

Feed Animals

Divert food scraps to animal feed

Industrial Uses

Provide waste oils for rendering and fuel conversion and food scraps for digestion to recover energy

Compost

Create a nutrient-rich soil amendment

Landfill/ Incineration

Last resort to disposal

Least Preferred

***PREVENTION of food waste is
#1 priority***

U.S. Campaigns



STATEMENTS & RELEASES

Presidential Message for Winning on Reducing Food Waste Month



LAND & AGRICULTURE

Issued on: April 1, 2019

US interagency goal:

Reduce food loss & waste by 50% by 2030

ZWLA Campaign

- Residents
- Restaurants
- Grocers/retail
- K-12
- Food Banks
- Composting



What can YOU do?

- **Be aware!**
- Plan
- Shop
- Store
- Cook & Serve
- Eat Leftovers
- Donate
- Compost



Plan

- See what you have on hand
- Plan meals, prioritizing using what you already have, esp. perishables
- Make a list of ingredients and quantities you need
- When eating out, only order what you will eat OR share with someone OR plan to take home leftovers



Meal Prep Mate

START PREPPING AT [SAVETHEFOOD.COM](https://www.savethefood.com)

Shop to your plan!

- Stick to your list
 - Don't shop hungry!
- Buy loose fruits and veggies
- Avoid BOGO trap
- Buy the wonky produce!
- Use smaller cart



Store food correctly

- Freeze for long-term storage and easy meals
- Make a sign/shelf for things in your fridge that spoil soonest



The Dating Game

SELL BY
08/02/12
11:32 -041



BEST BEFORE
06 JUN
J127 N22 02:11
BEST STORED IN A COOL, DRY PLACE

??????

Cook and Serve

- ◎ Plan portions, don't make too much
 - Beware holidays!
- ◎ Use up perishables early in the week
- ◎ Cook “roots to shoots”
- ◎ Find recipes to use scraps (stock, etc.)
- ◎ Use smaller plates and serving dishes!



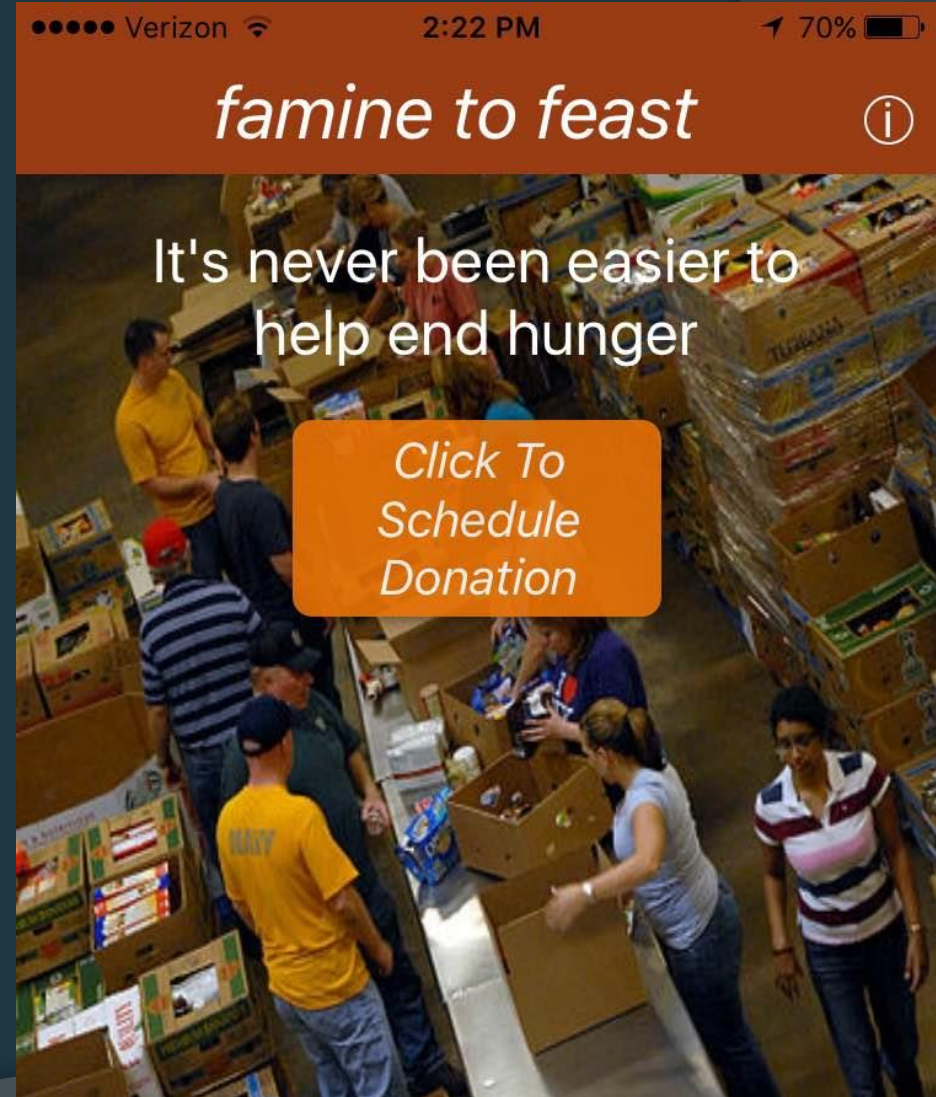
Love your Leftovers

- ◎ “Bonus Food”— saves time and \$\$
- ◎ Freeze, or keep in front of fridge
- ◎ Give to neighbors, take to work
- ◎ Find recipes to re-use food
- ◎ Bring a container to restaurants to take home leftovers



Donate Edible Food

- Famine to Feast
- LA Cares food drives
- bins at Aquatic Center
- others?
- OLIO app



Feed Animals or Compost

◎ Chickens! Pigs! Goats! Oh My!

◎ So many ways to compost!

- Outdoor
- Indoor
- Piles
- Bins
- Tumblers
- Worms
- Neighbors
- Anaerobic digesters



You CAN Help!



Don't be a Consumer Zombie!

THANK YOU!

- For listening, for caring, for taking action to reduce wasted food!
- See losalamosnm.us/gogreen for more info and ideas!



zerowaste@lacnm.us

THIRTY BEHAVIORAL SOLUTIONS FOR CLIMATE MITIGATION

Table 1. Thirty solutions to reduce emissions from human consumption across major economic sectors and solutions adoption scenarios. Numbered rankings were determined from the Optimum scenario emissions reduction estimates.

Note. Emissions potentials are based on varying assumptions about global levels of adoption.

Sector	Solution (Optimum scenario ranking)	Description	Plausible-Optimum Scenario Emissions Reduction (GtCO ₂ -eq)
FOOD	1. Reduced food waste	Minimizing food loss and wastage throughout the food supply chain from harvest to consumption	70.5-93.7
	2. Plant-rich diets	Eating more plant-based foods and fewer animal proteins and products (e.g., meat, dairy) ← <i>do this too!</i>	66.1-87.0
	13. Clean cookstoves	Using cookstoves that burn fuel more efficiently	15.8-24.3
	25. Composting	Converting biodegradable waste into a useful soil fertilizer instead of sending it to the landfill	2.3-3.6

Food waste reduction is the #1 behavioral solution to reduce global warming

Impact: Social Justice

- Globally, wasted food can feed every hungry person 3X
- avg. U.S. person wastes 1250 cals/day
- 41 million food insecure in U.S.

