

# Food and Climate Change

Austin Community Climate Plan  
Appendix / Addendum

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# Technical Advisory Group Strategies

## Electricity and Natural Gas

- Buildings and Integrated Efficiency
- Promote Behavior Change
- Resource Technologies

## Transportation and Land Use

- Infrastructure and Service
- Land Use
- Demand Management
- Policy and Planning
- Vehicles and Fuel Efficiency
- Economic and Pricing Solutions

## Materials and Waste Management

- Organics Diversion
- Purchasing
- Methane Management
- Recycle / Reduce / Reuse

## Industrial Process

- Fuel Switching
- Process Optimization
- Capture and Destruction
- Local Offsets

# What are we missing?

- Impacts outside of our geographic boundary
- Impacts of agriculture and food
- Organic carbon flows (trees, plants, soil, etc.)
- Life cycle impacts of products and services

# Why should food be addressed in our plan?

- The food system is a significant contributor to global greenhouse gas (GHG) emissions, production, processing, distribution, retail, consumption patterns and waste all have impacts beyond our geography
- Healthy soil and pasture associated with sustainable agriculture have the potential to sequester up to 50 to 1000 kg/ha/year of atmospheric carbon (1.8 - 2.6 MMT CO<sub>2</sub>e) (Lal, 2004).
- Equity issues of food, transportation, energy usage, and geography
- The food supply is also particularly vulnerable to climate change impacts. Unpredictable weather patterns and extreme weather events can greatly diminish agricultural yields, food quality and safety, delivery reliability and affordability.
- Cities across the Nation include evidence-based food and agriculture strategies to reduce emissions in their community climate action plans. San Francisco, NYC, Portland, Minneapolis, Seattle, and more

# Quantification of Impacts

# Consumption Based IO-LCA Food Emissions

• In-Out Life Cycle Assessment (IO-LCA) estimates GHG emissions from all upstream activity

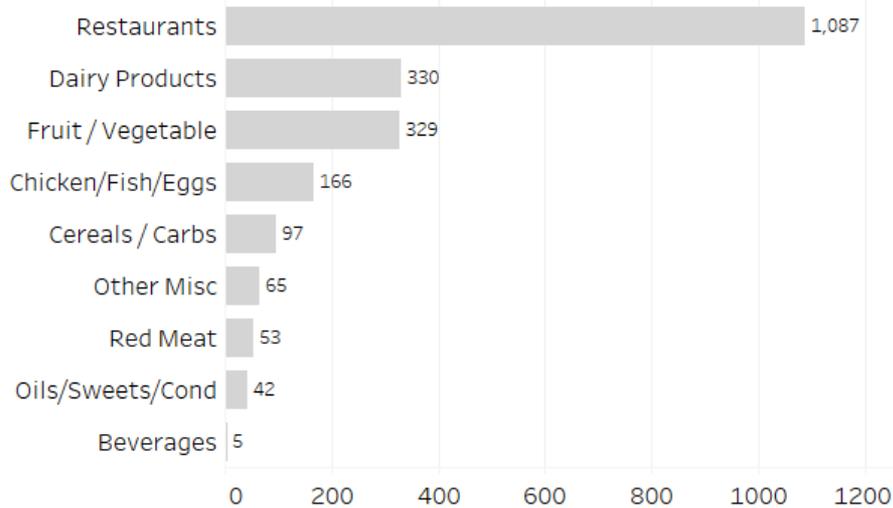
## Emissions Scope of IO-LCA Method



Emissions Calculation =  
(2,174 Lb Food / Person / Year) x  
(Emissions by Food Category) x  
(1,200,000 People)

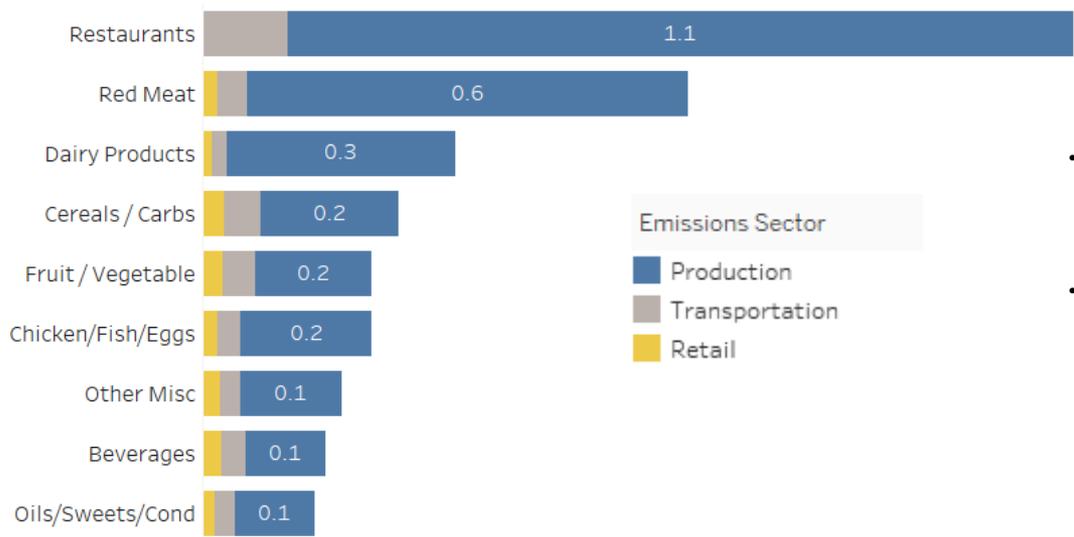
# 2016 Food Emissions by Category

## 2009 USDA Consumption by Food Group (LB / Person / Year)



- Restaurants assume the same food category compilation as home eating but use different emissions factors (also don't have retail emissions).
- Americans eat at restaurants 50% of the time

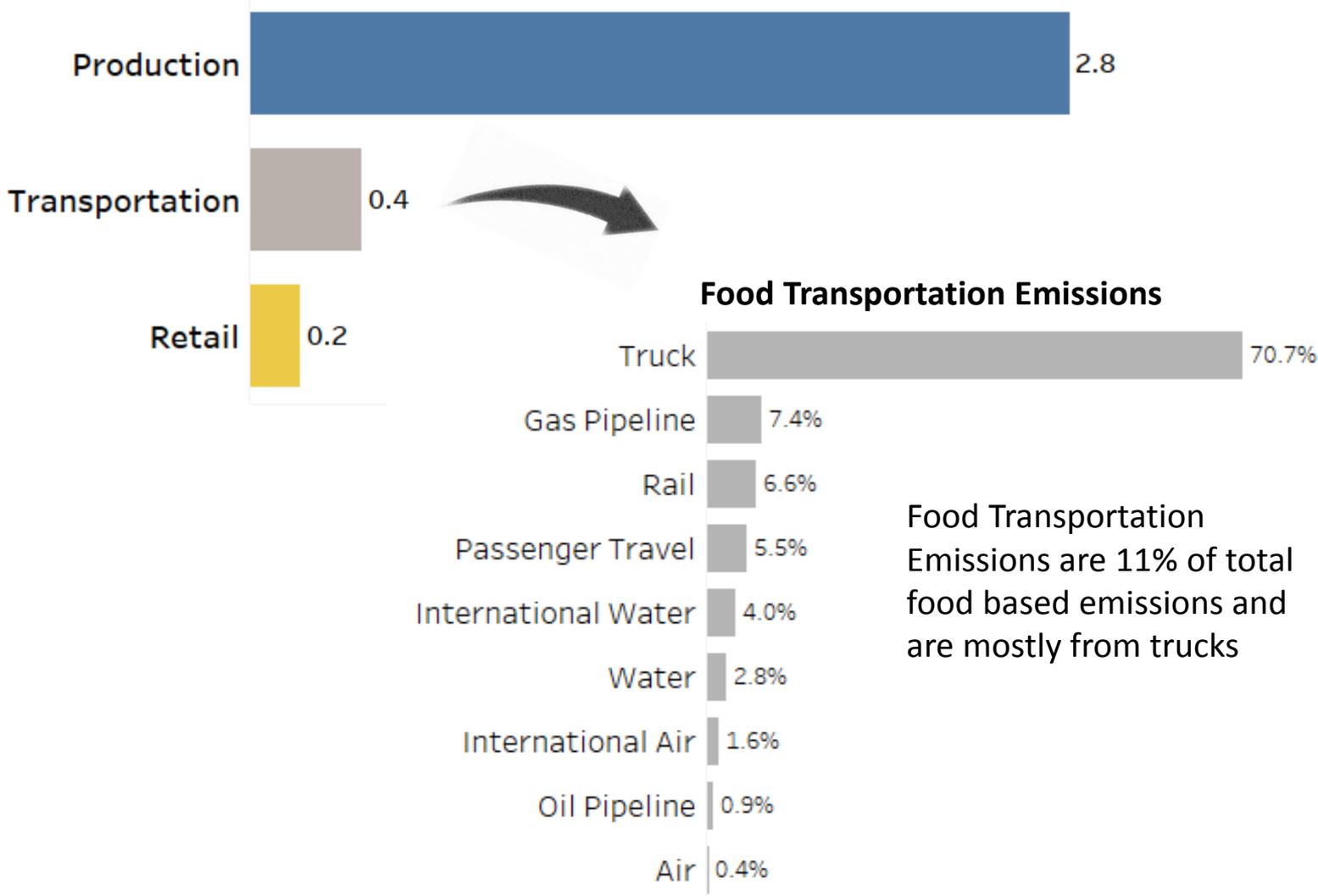
## 2016 Travis Co. Consumption Based Food Emissions (3.4 MMT CO<sub>2</sub>e)



- Food production is the source of 80% of consumption based food emissions
- Red meat is the most emissions intensive food to produce

# 2016 Travis Co. Food Emissions Estimate

## 2016 Consumption Based Food Emissions (3.4 MMT CO<sub>2</sub>e)

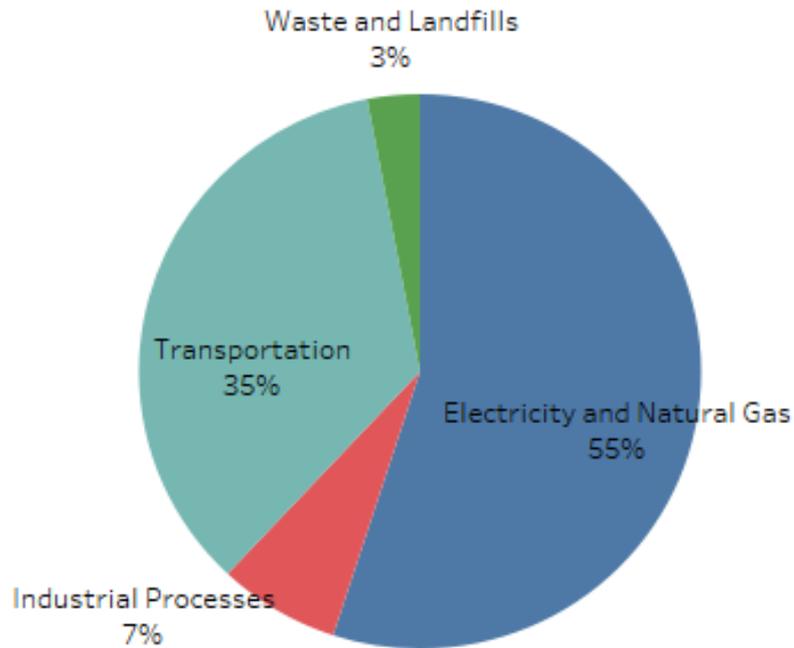


Food Transportation Emissions are 11% of total food based emissions and are mostly from trucks

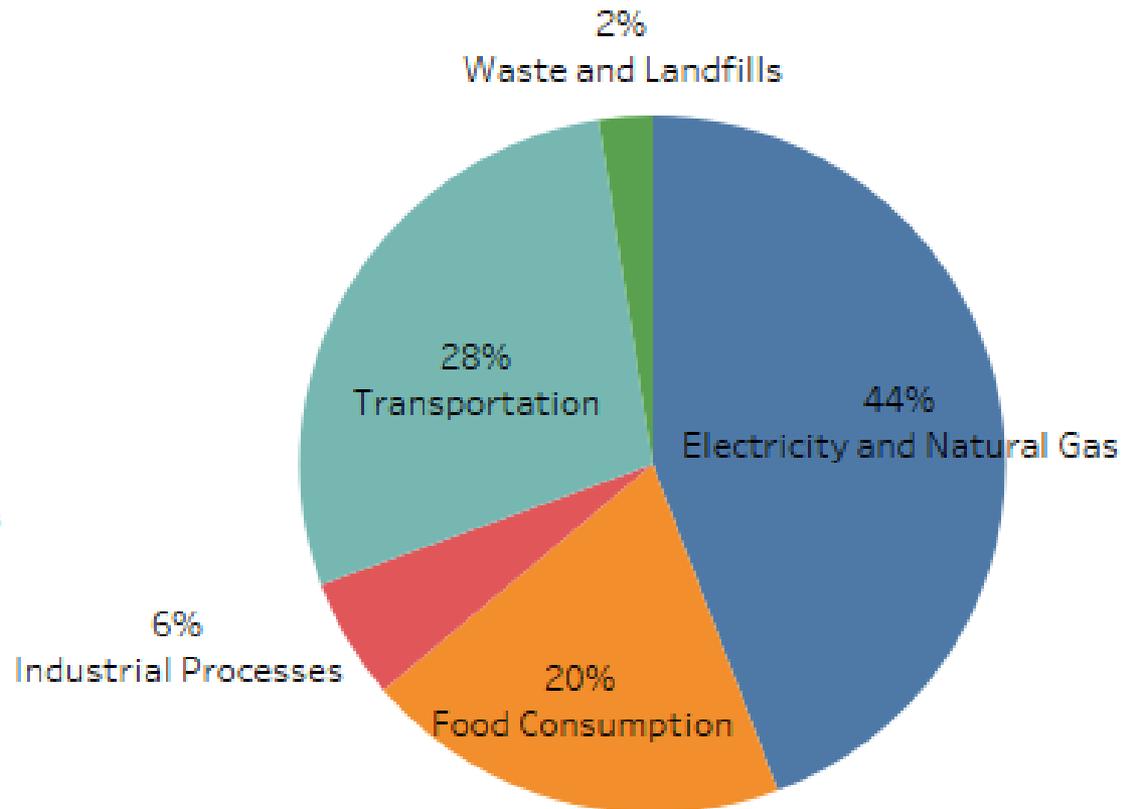


# 2013 Travis County Greenhouse Gas Emissions

**2013 Travis Co. Emissions  
(14 Million MT CO<sub>2</sub>e)**



**2013 Travis Co. Emissions with Food Consumption (17.4 Million MT CO<sub>2</sub>e)**



# The DRAFT Plan

# Challenges & Opportunities

- Local Land Use
- Economic Inequities
- Changing Climate
- Lack of City Control
- Increase Local Demand
- Improved Public Health
- Community Resilience
- Local Economic Benefits

# Existing Supporting Plans and Initiatives

- Imagine Austin Comprehensive Plan
- Travis County Land, Water and Transportation Plan
- Austin CodeNEXT, land code re-write
- Community Health Improvement Plan
- Austin Strategic Mobility Plan (Safe Routes to Market)
- Connections 2025 - Cap Metro strategic plan
- Healthy Food Access Initiative
- Farm to Work Program
- Good Food Purchasing Program

# 4 Strategy Areas

1. Reduce Emissions, Support Sequestration and Enhance Resilience in Production
2. Reduce Emissions in Logistics (processing, storage, distribution and retail)
3. Reduce Emissions in Consumption (availability, accessibility, utilization)
4. Reduce Emissions from Food Waste

# Strategy 1: Reduce Emissions, Support Sequestration and Enhance Resilience in Production

- PR1 - Preserve prime farmland through the continued support of Conservation Easements, using “right match” land use framework
- PR2- Allow food production on City/County park land (under lease contracts of at least 3 year terms)
- PR3 - Support food producers within City/County limits to use sustainable production and land management methods through financial support for certifications such as organic, holistic management, permaculture, biodynamic (certification subsidies?)
- PR4 - Offer rebates for irrigation water management equipment, conservation tillage equipment
- PR5 - Tax assessor's office accurately values ag land in order for farmers to afford to stay on their land and to lower barriers for new farmers attempting to purchase ag land
- PR6 - Require new development on 5 acres or greater to preserve a certain percentage of open land for Natural green space and/or food production.

# Strategy 2: Reduce Emissions in Logistics (Processing, Storage, Distribution and Retail)

- LOG1 – Enhance Central Texas sustainable food producers’ access to Austin consumers by identifying City/County facilities and/or land for collective aggregation, storage and sales/distribution.
- LOG2 – Collaborate with the trucking and logistics industry to shift vehicles off major transportation thoroughfares during peak times and focus on reduction of idling.
- LOG3 - Explore partnerships with food logistics companies to encourage/support electrification of truck refrigeration.
- LOG4 - Continue city support Good Food Purchasing Program
- LOG5 – Increase retail capacity to reduce transportation time to purchase food, as well as address lack of food access, since healthy food access supports a reduced-emission lifestyle
- LOG6 - Implement labeling at retail and restaurant establishments that includes environmental impact
- LOG7 - Encourage or incentivize large-scale refrigeration operations to use most efficient cooling systems

## **Already in the adopted plan**

- PU-2 - City adopts procurement specifications for materials reuse, reduced packaging, products with low embodied energy, materials with recycled content, and locally manufactured products and the City encourages other agencies and enterprises to follow suit.
- PU-3 - ARR develops public marketing campaign promoting responsible purchasing. (Expand to city-wide initiative linked with GFPP)
- PU-4 - ARR encourages groups to purchase items cooperatively to reduce packaging. (Extruded polystyrene foam ban?)
- PU-5 - City adopts responsible purchasing policies, including shifting from purchasing products to purchasing services, and encourages other agencies and enterprises to follow suit.
- IS-9 - Plan, design and build toll and/or managed lanes to include construction or operations necessary to increase transportation efficiencies including Park & Ride facilities, transit, higher occupancy vehicles, and freight distribution.

## Strategy 3: Reduce Emissions in Consumption (availability, accessibility, utilization)

- C1 - City policies to promote availability of F&Vs, and decrease animal products in City cafeterias and at City-funded events
- C2 – Incentivize City employee purchases of F&Vs (e.g. financial incentives for participation in Farm to Work)
- C3 - Training to increase knowledge of what a sustainable diet means for City Employees, how to eat sustainably.
- C4 - Promote awareness of a low-carbon diet through public education campaigns of sustainability considerations of food citywide
- C5 - Improve SNAP and WIC enrollment rates, match SNAP education funding, double SNAP and WIC benefits
- C6 - Address lack of access in food deserts (e.g. increase food retail capacity, increased mobile markets)
- C7 - Improve transportation, sidewalk and bike routes for healthy food retail access (Safe Routes to Market)

# Strategy 4: Reduce Emissions from Food Waste

- WM1 – Support recovery of food for human consumption first, then animal consumption before going to compost or landfill
- WM2 - ARR expands collection of food residuals and other compostables to multi-family residences

# Next Steps

- Review and Revise the Actions
- Finalize the Appendix / Addendum
- Present to other B&Cs
- Gain approval by the City Council