

COPE Webinar for Health Professionals



Promoting Sustainable Diets for Human and Planetary Health: The Healthcare Provider's Role

Wednesday, April 19, 2023

Moderator

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Promoting Sustainable Diets for Human and Planetary Health: The Healthcare Provider's Role



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Promoting Sustainable Diets for Human and Planetary Health: The Healthcare Provider's Role



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Becky Ramsing, MPH, RDN
April, 2023



Learning Objectives

1. Describe how components of the food system - diet, public health, food production, and the environment – interact and shape our daily lives, and how the food system faces constant pressures from resource depletion, lack of equity, population growth and climate disruption.
2. Describe the environmental, health and climate impacts of the food we eat.
3. Define a sustainable diet and provide guidelines for helping people make sustainable, healthy food choices.

Sustainability: A process, not prescription

- The capacity of being maintained over the long term in order to meet the needs of the present without jeopardizing the ability of future generations to meet their needs. (Gussow and Clancy)
- Infers a state or process that can be maintained indefinitely. (Kirschenmann)
- A sustainable and resilient food system conserves and renews natural resources, advances social justice and animal welfare, builds community wealth, and fulfills the food and nutrition needs of all eaters now and in the future.” (Harmon A. & Tagtow A., 2008)

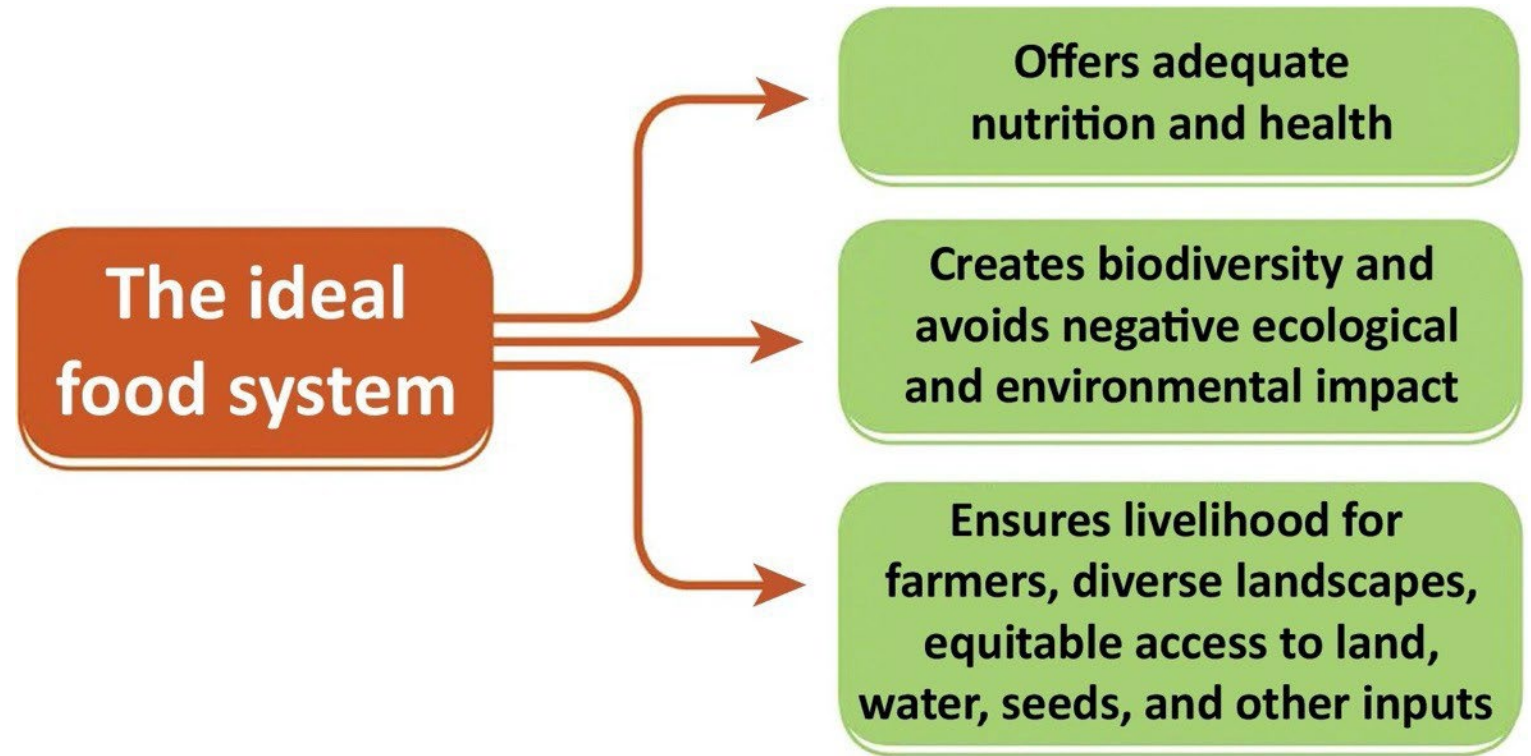
Sustainable, resilient, and healthy food and water systems framework

(Adapted from Tagtow and
colleagues)



Achieving Sustainable diets

- Nutritionally viable
- Ecologically sound
- Culturally acceptable
- Affordable
- Physically accessible
- Fair and equitable



Our diet, our environment

- Land use and degradation (soil)
- Water
- Greenhouse gas emissions
- Energy
- Consumption
- Animal products
- Wasted food

Eating sustainably is one of the easiest ways to combat climate change, experts say

Simple switches on a collective level could move the needle on climate goals.

By [Julia Jacobo](#)

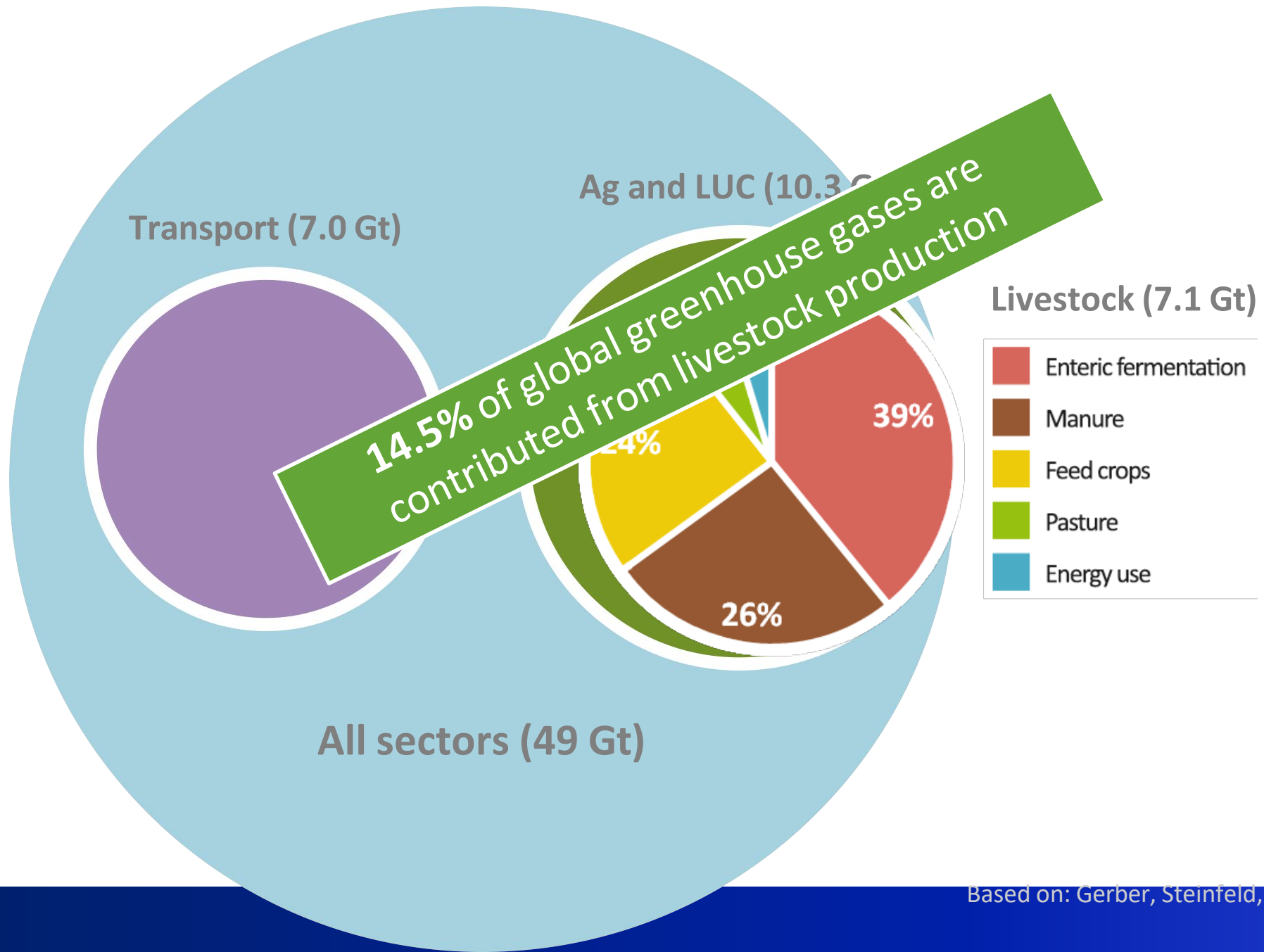
September 24, 2021, 6:02 AM • 11 min read



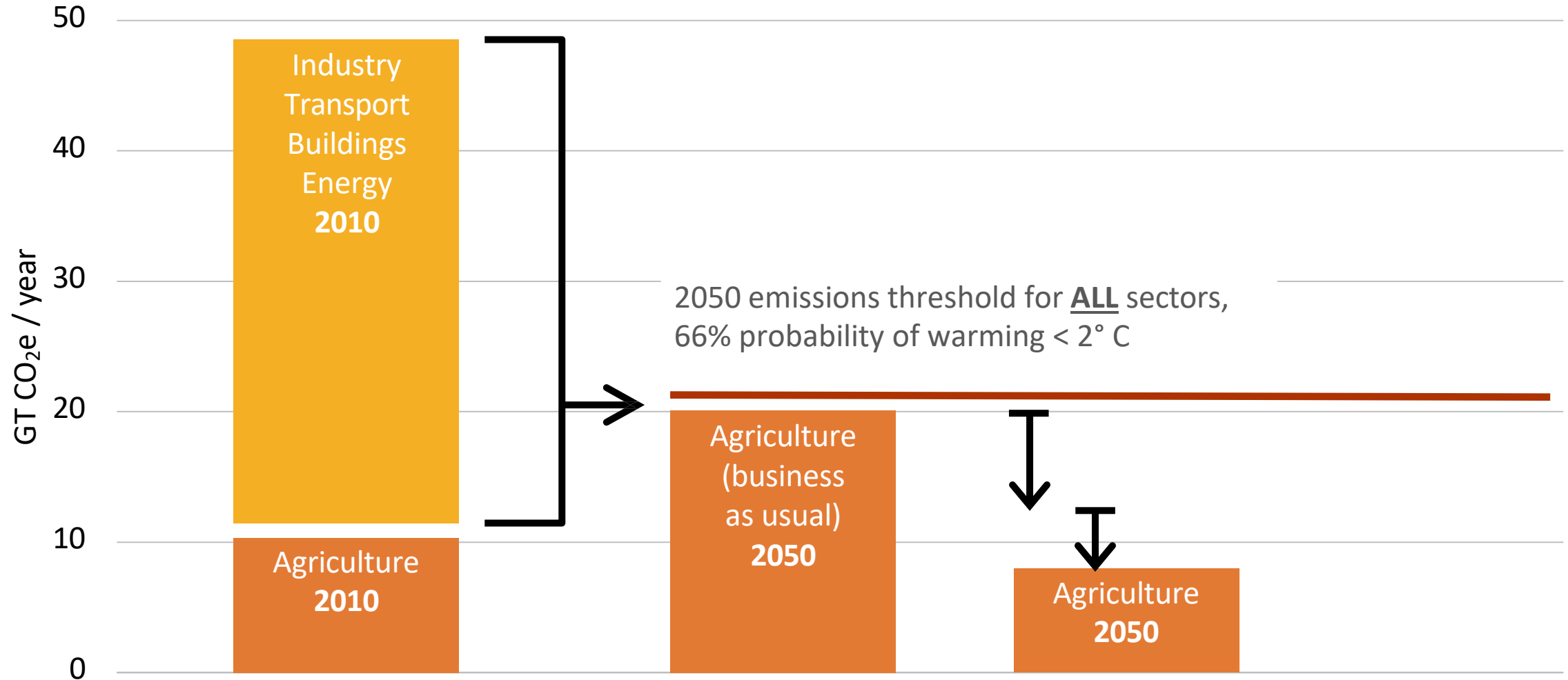
Climate change impacts

- ▶ Decreased food and water security
- ▶ More frequent and intense extreme weather events
- ▶ Increased heat-related mortality
- ▶ Population displacement
- ▶ Spread of vector- and water-borne disease
- ▶ Increased damages from flooding, wildfires



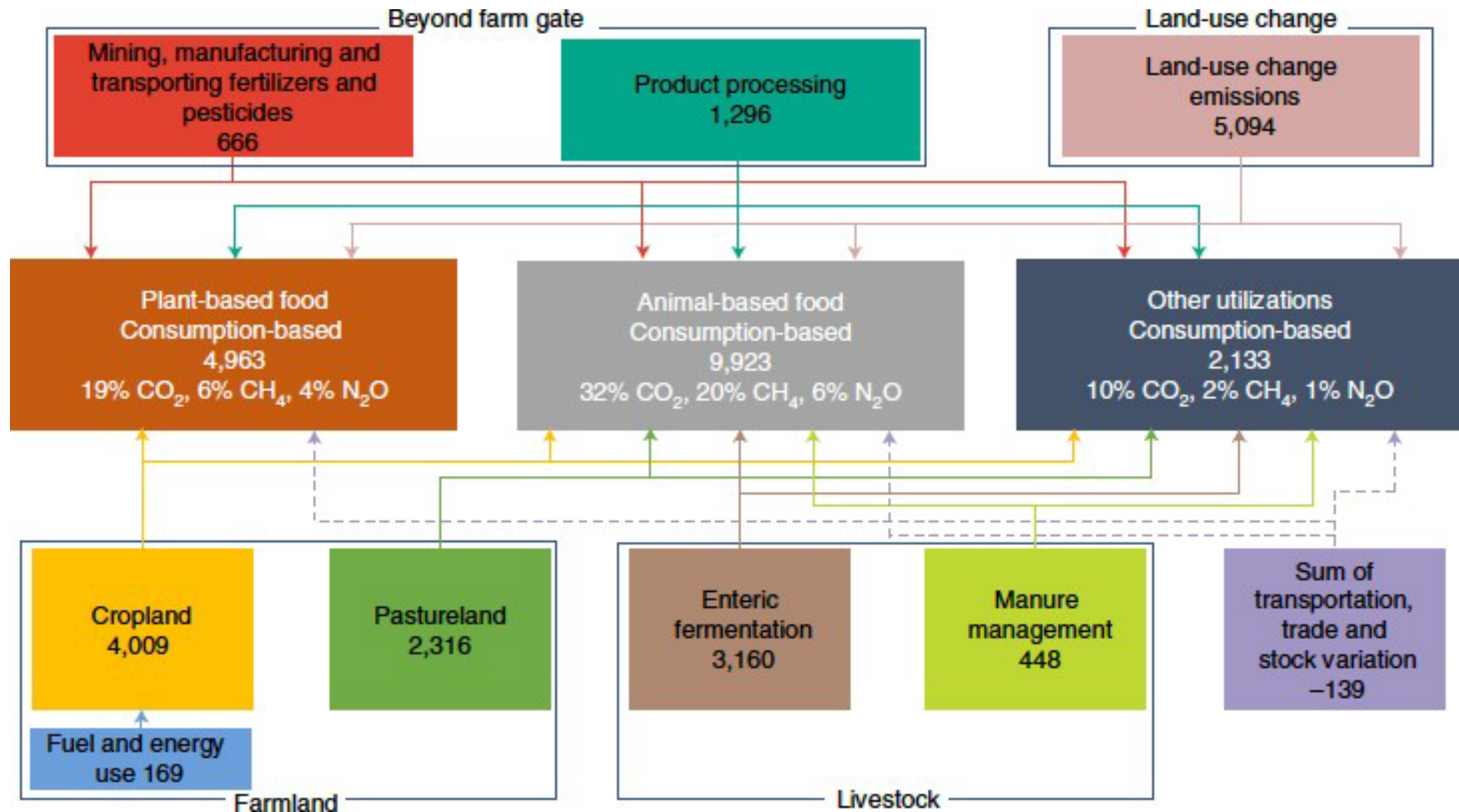


Emissions scenarios

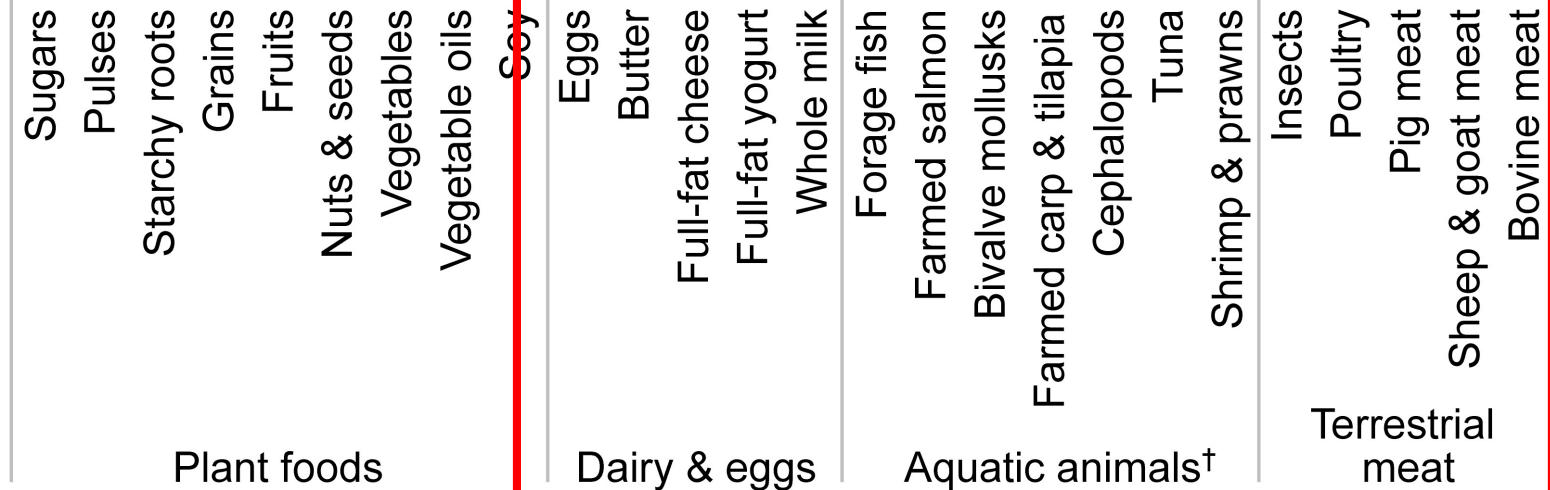
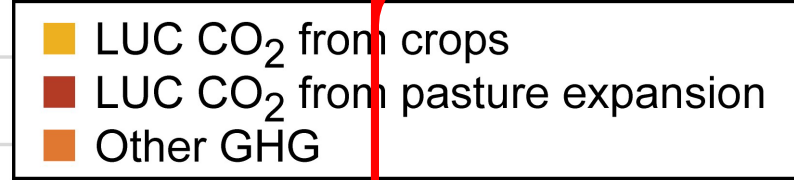


Based on: Kim BF, Neff RN, Santo R, Vigorito J. *The Importance of Reducing Animal Product Consumption and Wasted Food in Mitigating Catastrophic Climate Change*. CLF, 2015. Bajželj B, Richards KS, Allwood JM, et al. Importance of food-demand management for climate mitigation. *Nat Clim Chang*. 2014;4(10):924-929..

Plant based food consumption is half of animal



GHG footprint (kg CO₂e / serving)

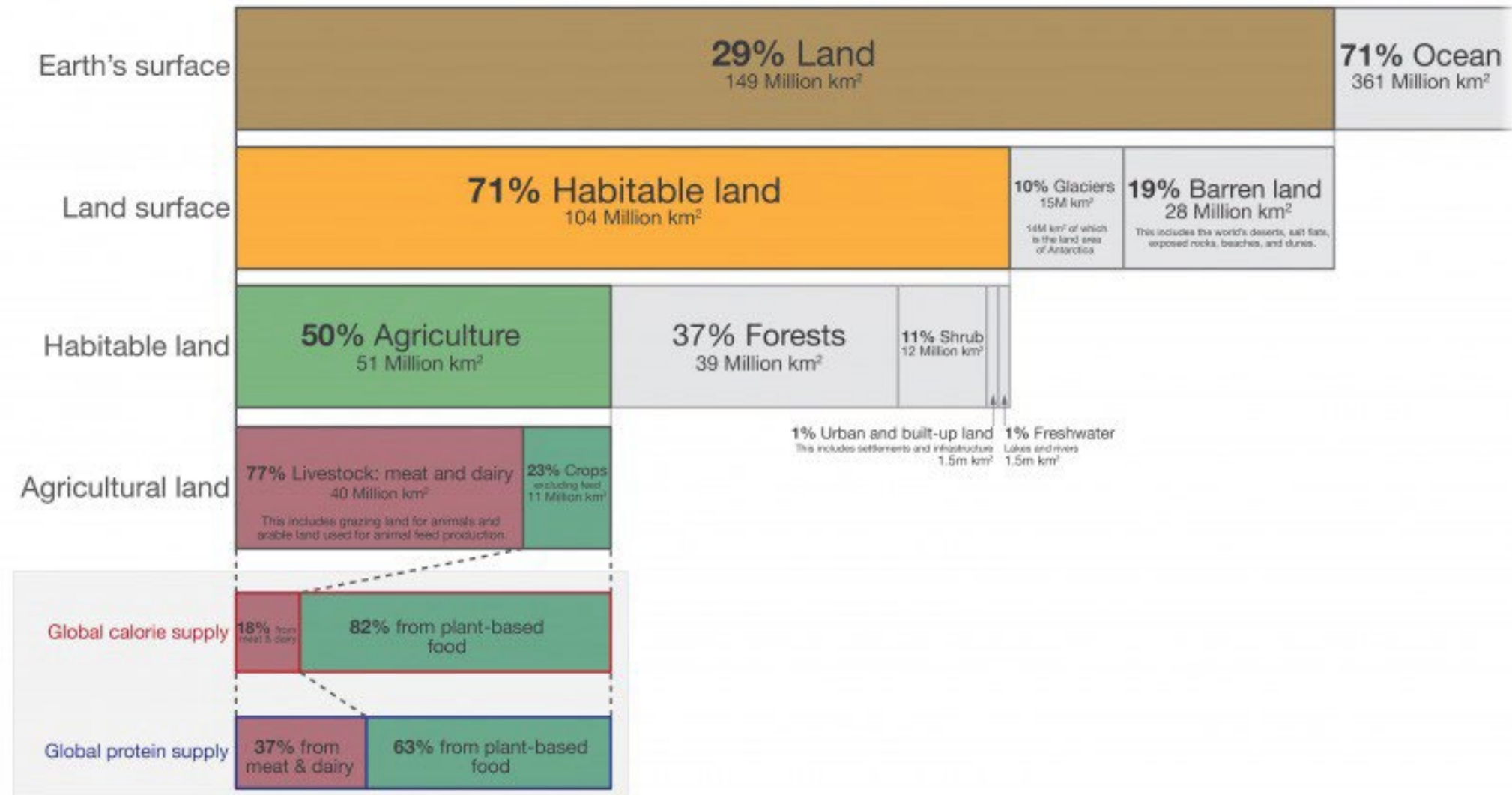


Per Serving Greenhouse Gas Footprints

>3800 unique observations
>150 countries

Kim BF, Santo RE, et al. Country-specific dietary shifts to mitigate climate and water crises. *Global Environmental Change*. 2019.

Global land use for food production



Data source: UN Food and Agriculture Organization (FAO)

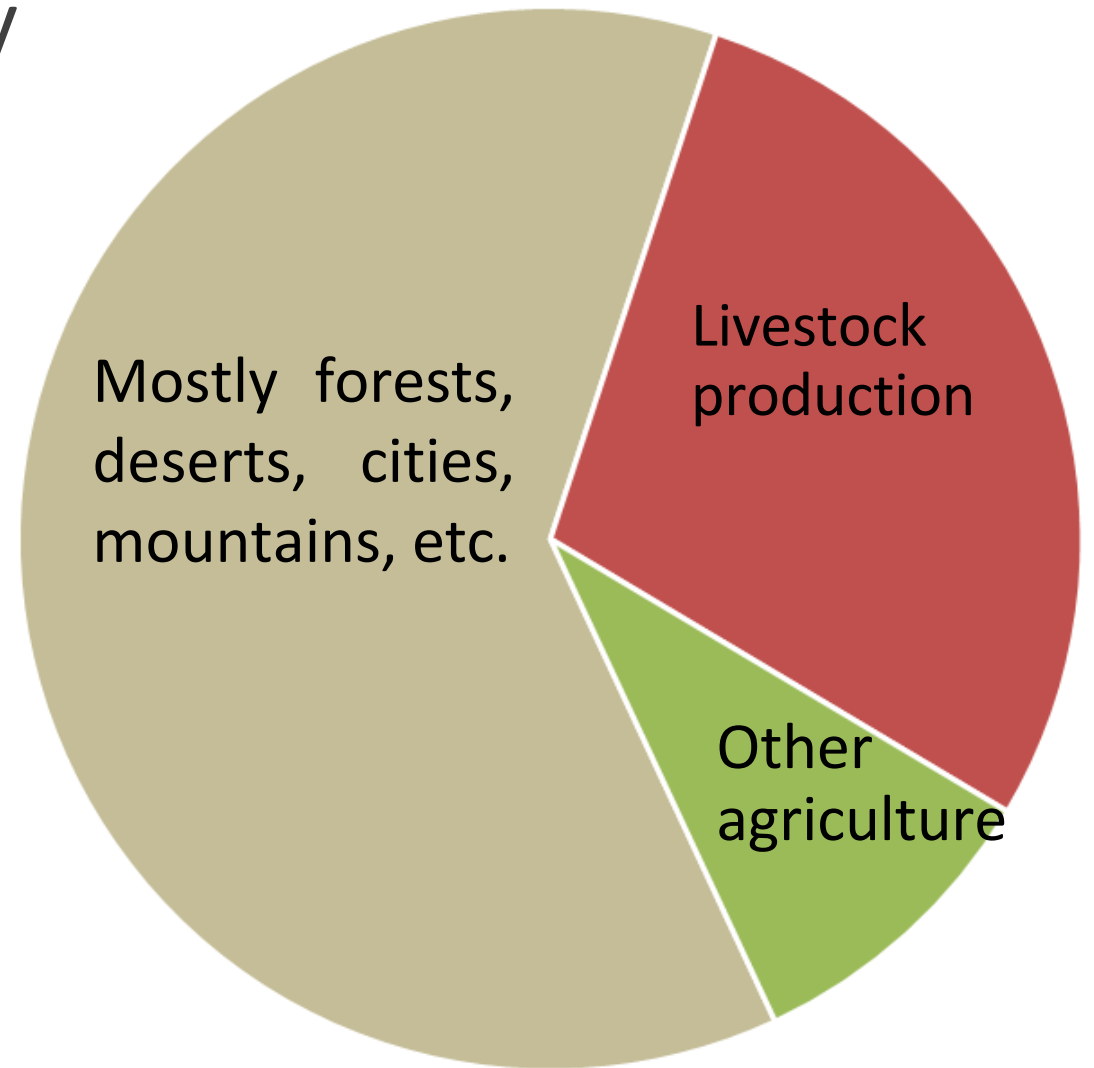
OurWorldinData.org - Research and data to make progress against the world's largest problems.

Licensed under CC-BY by the authors Hannah Ritchie and Max Roser in 2019.

Land -> Soil -> Biodiversity

Land

- 40% global land surface for agriculture
- 70% of this for livestock = 30% of land
- 12% increase of cropland in 4 decades



Land -> Soil - > Biodiversity

Farming practices & Soil

- 40% croplands experiencing soil erosion, reduced fertility, overgrazing
- Healthy soil = resilient, carbon sequestration, reduced erosion



Biodiversity and the Food System



The variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part.

Essential to food systems – prerequisite for ecosystems services related to food production (soil, pollination, etc.)

Loss of Biodiversity = less resilient to climate change and extreme weather, more vulnerable to pests, diseases, etc.

Growing and eating patterns are primary drivers

- Mono crops, farming practices
- Processed foods, more of fewer crops
- Meat consumption - land

Diets drive biodiversity



Today, 75 percent of the world's food is generated from only 12 plants and five animal species. (FAO)



Only three - rice, maize and wheat - contribute nearly 60 percent of calories and proteins obtained by humans from plants.



Diverse diets are healthy diets



Water

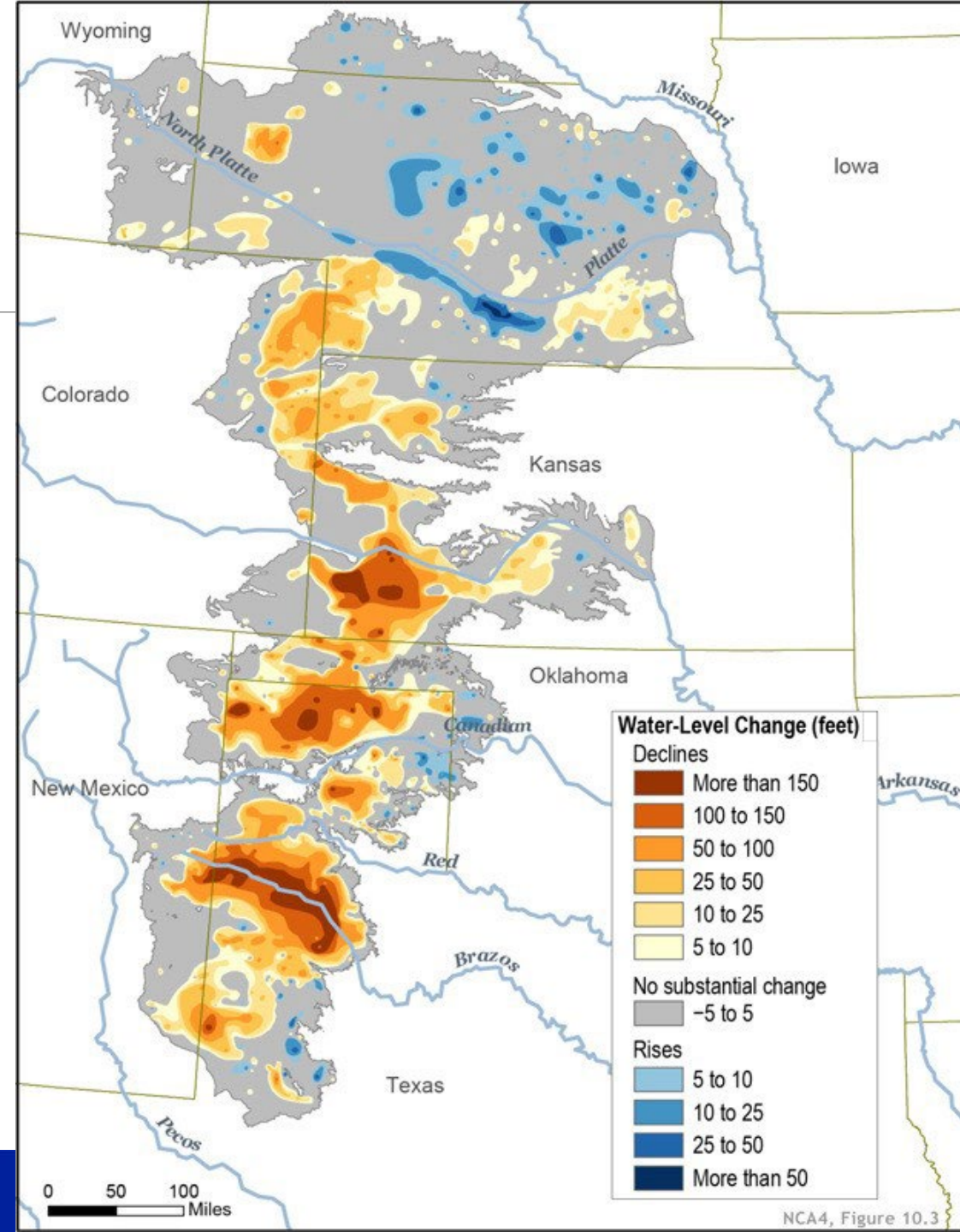
Crop production: 80% US freshwater use; 70% globally

Ogallala Aquifer's declining water levels

27% US irrigated land

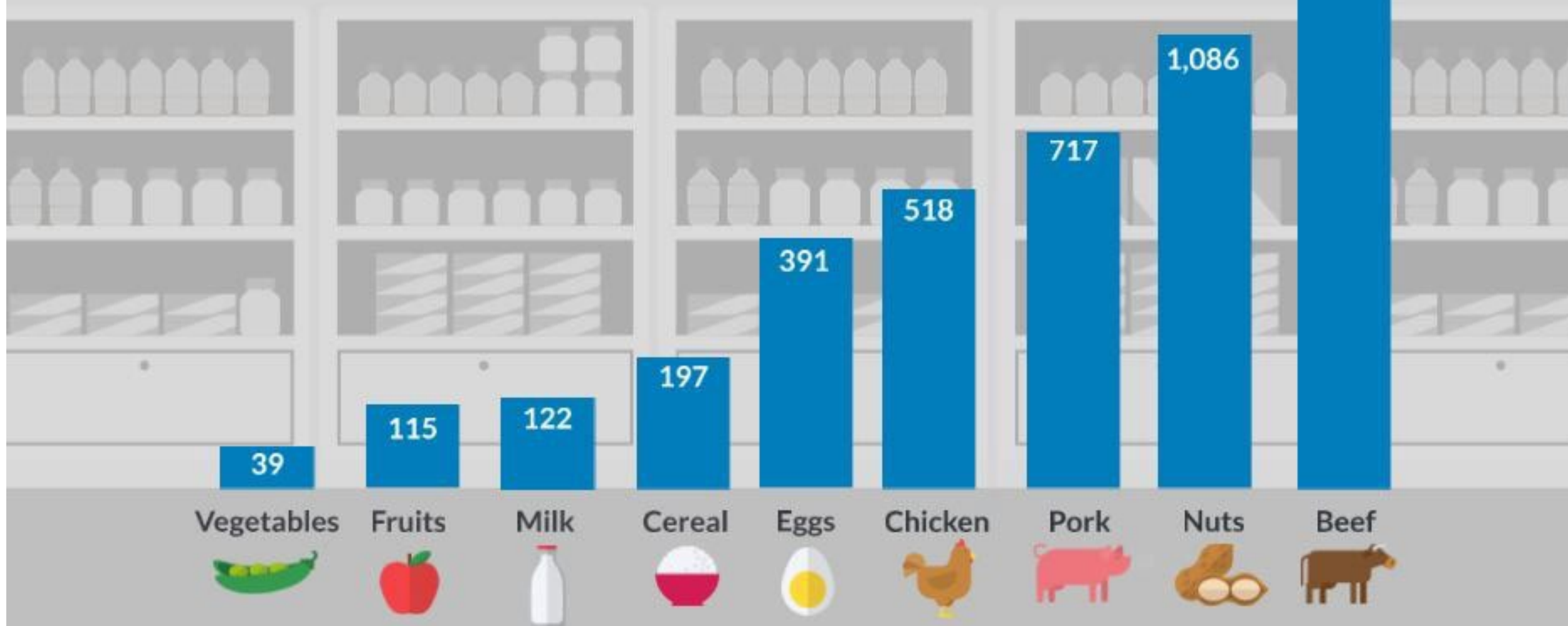
drinking water for 82% of (2.3 mil.) people living in the boundary

Irrigation – salinization – loss of 1.5 m hectares arable land/year



How much water does it take?

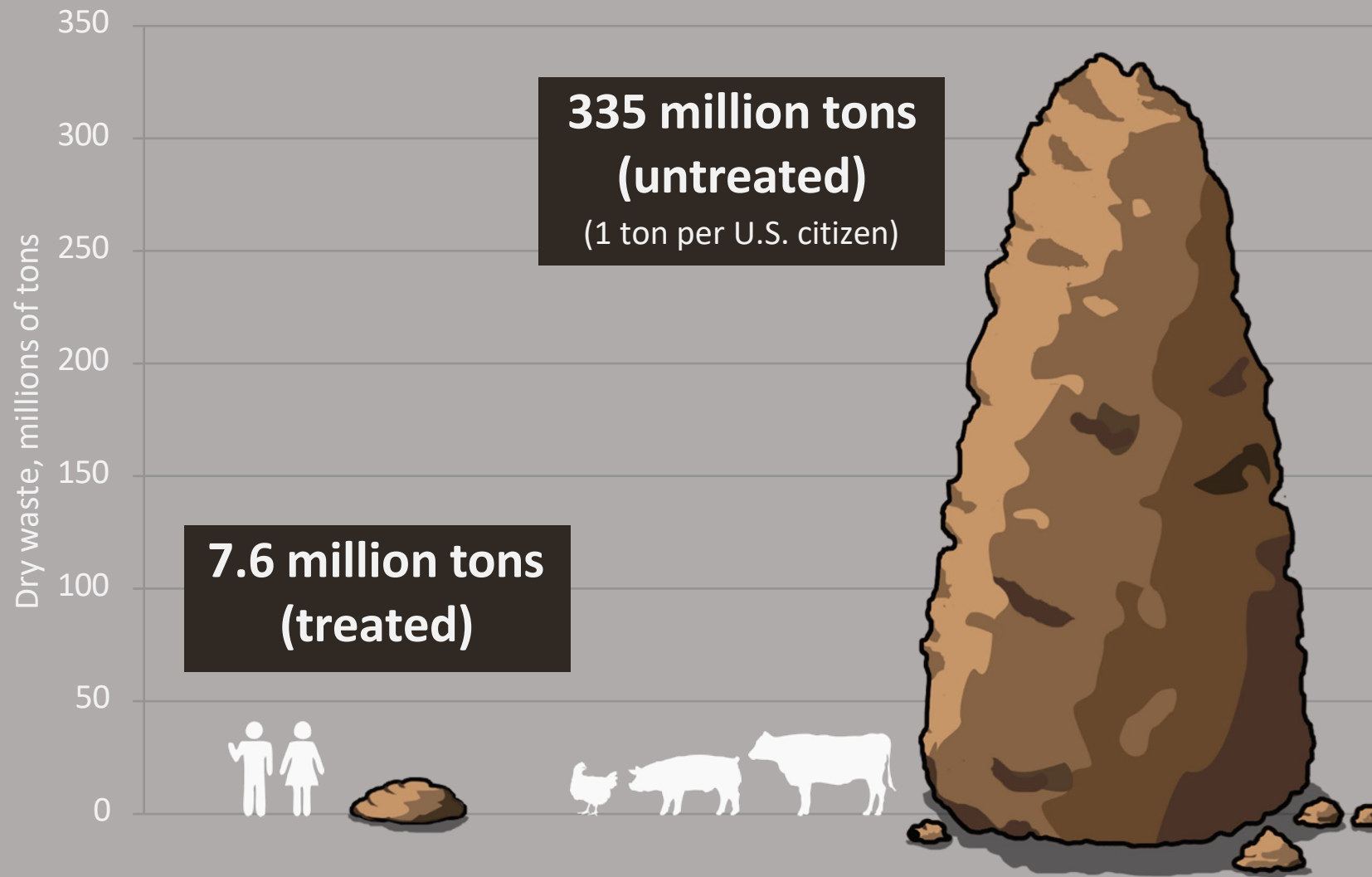
Gallons of water required to make one pound of food



Global averages. Statistics from the Water Footprint Network



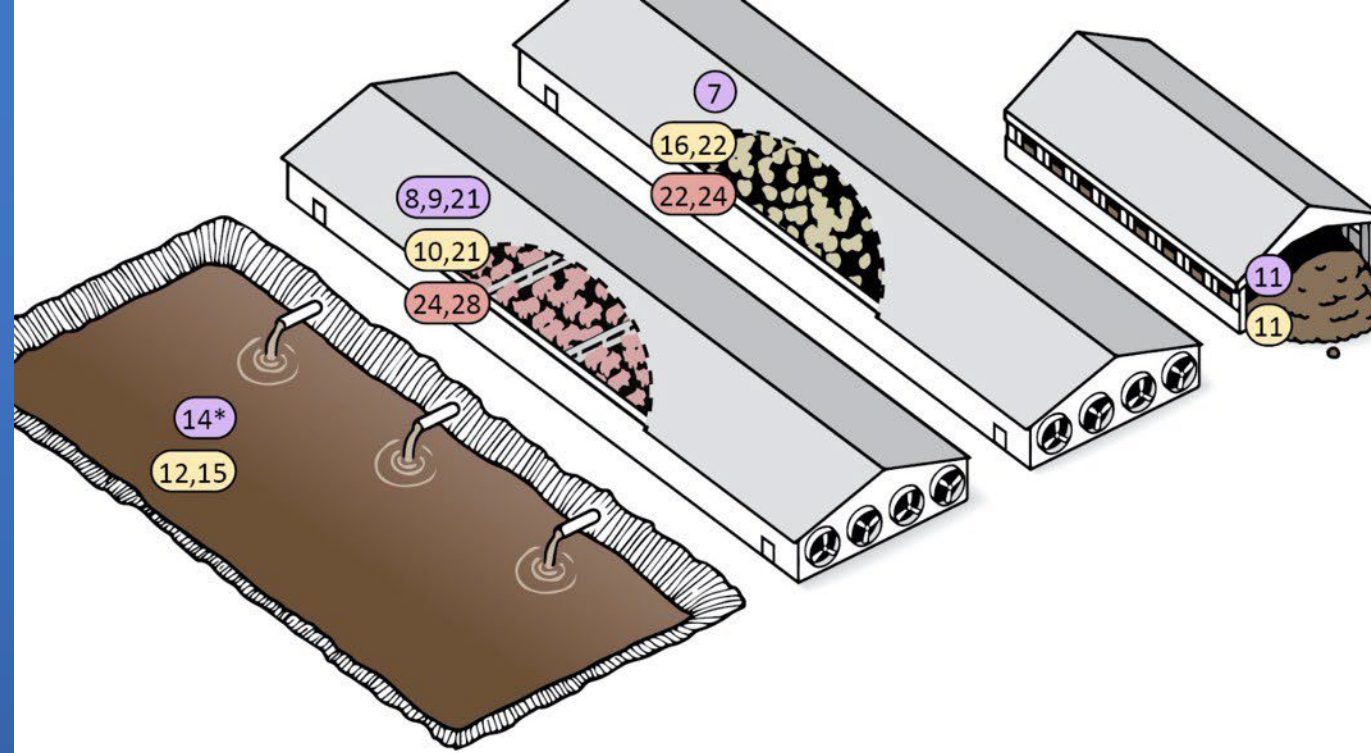
Waste generation







**7.6 million tons
(treated)**

**335 million tons
(untreated)**
(1 ton per U.S. citizen)

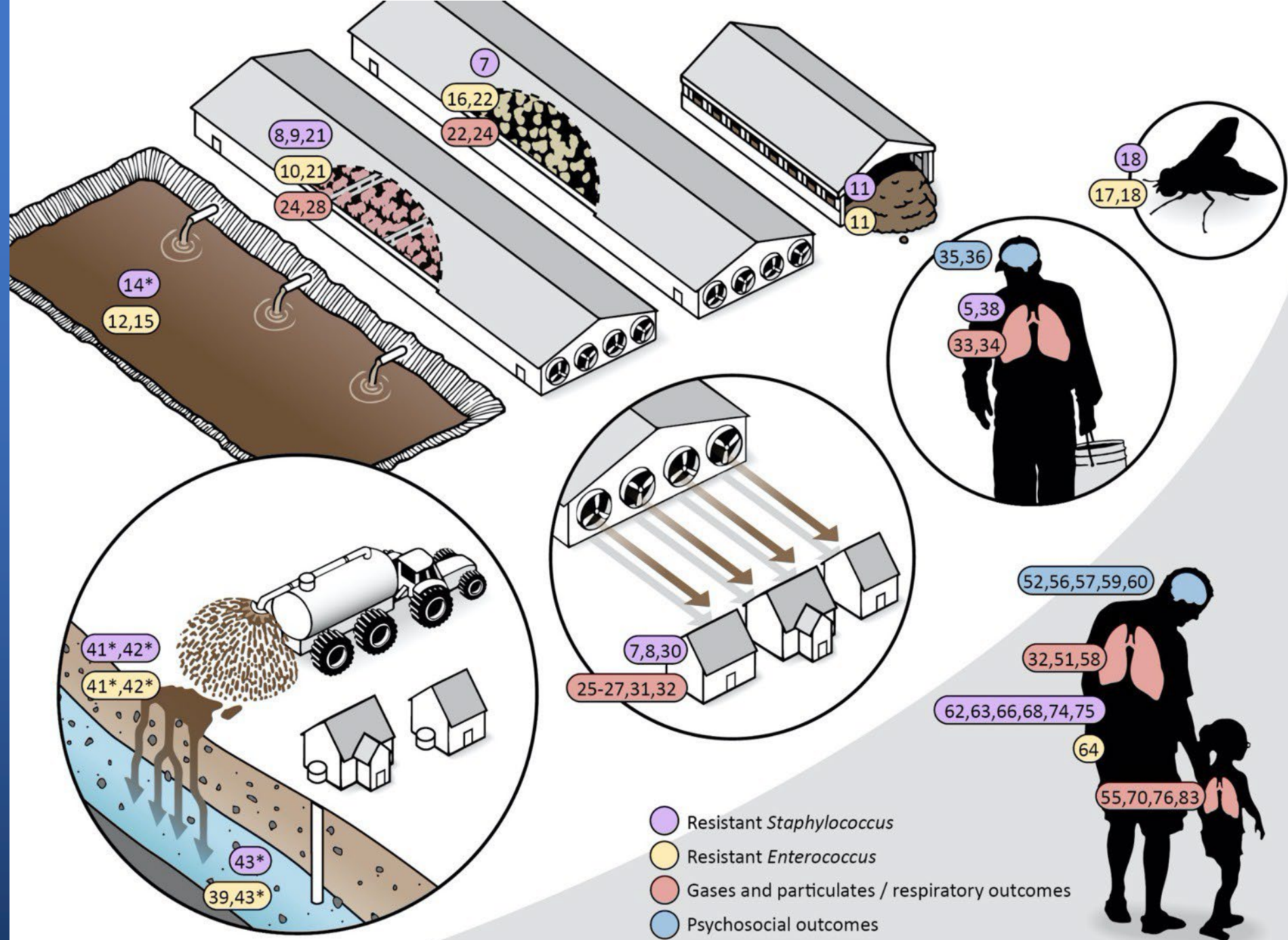
Worker and community health



Casey JA, Kim BF, et al. Industrial Food Animal Production and Community Health. *Current Environmental Health Reports*. 2015; 2:259–271.

-  Resistant *Staphylococcus*
-  Resistant *Enterococcus*
-  Gases and particulates / respiratory outcomes
-  Psychosocial outcomes

Worker and community health



Casey JA, Kim BF, et al. Industrial Food Animal Production and Community Health. *Current Environmental Health Reports*. 2015; 2:259–271.



Our Diets: Research Overview

- ▶ Increased consumption of red and processed meats is associated with increased risk of heart disease, diabetes, some cancers and other diseases
- ▶ Research suggests that diets with more whole grains, vegetables and fruits, and less meat, particularly processed meat, can reduce the risk of type 2 diabetes.
- ▶ Probable links to gut health, healthy weights, and other chronic conditions

Associations of Processed Meat, Unprocessed Red Meat, Poultry, or Fish Intake With Incident Cardiovascular Disease and All-Cause Mortality

JAMA Intern Med. 2020;180(4):503-512.
doi:10.1001/jamainternmed.2019.6969

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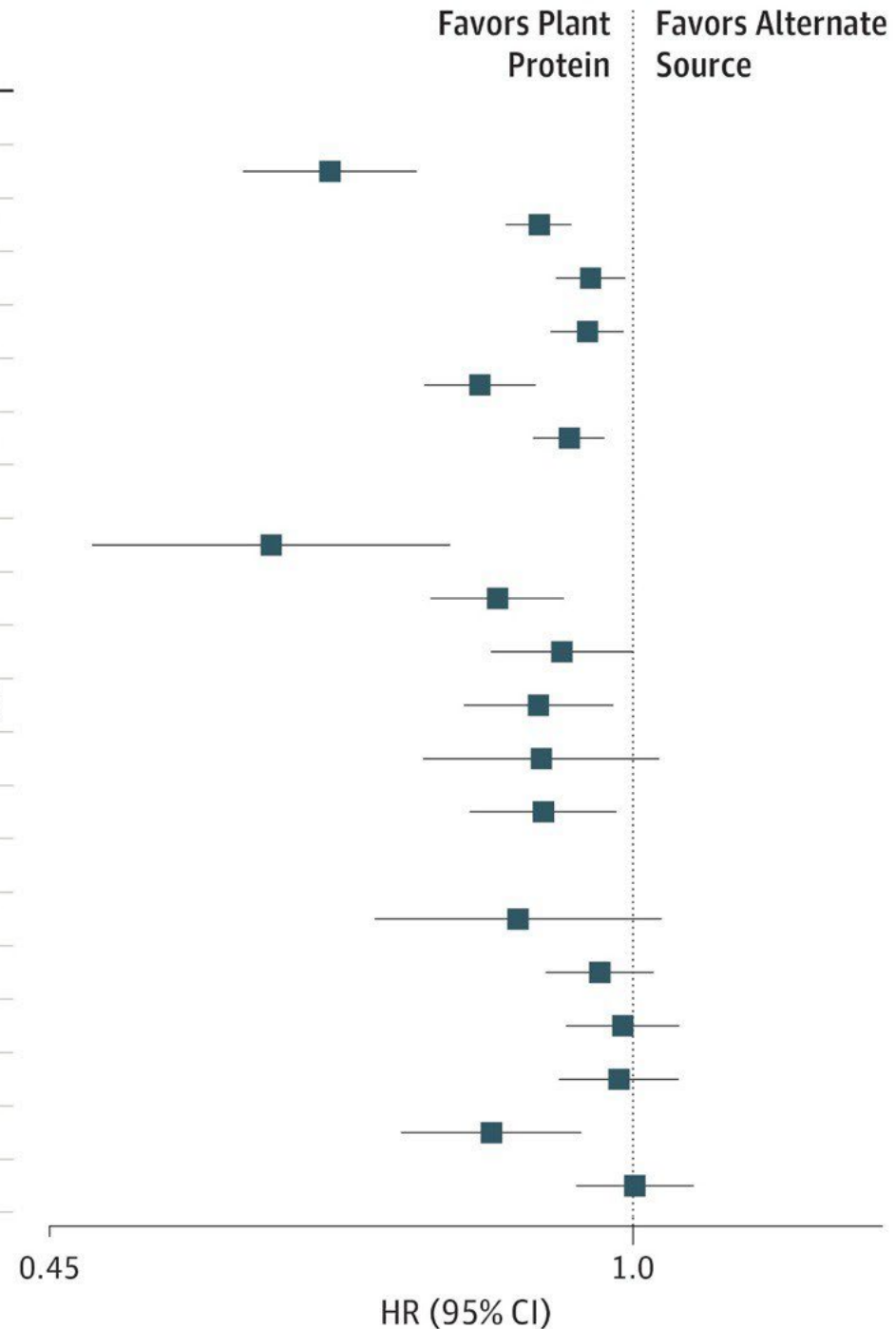
Date of download: 3/31/2021

Model	HR (95% CI)	Lower Risk of CVD	Higher Risk of CVD	P Value
Processed meat intake (2 vs 0 servings/wk)				
Model 1	1.11 (1.07-1.15)			<.001
Model 2	1.08 (1.04-1.11)			<.001
Model 3	1.07 (1.04-1.11)			<.001
Unprocessed red meat intake (per 2 servings/wk)				
Model 1	1.04 (1.03-1.06)			<.001
Model 2	1.03 (1.01-1.05)			.002
Model 3	1.03 (1.01-1.06)			.005
Poultry intake (per 2 servings/wk)				
Model 1	1.02 (0.99-1.04)			.19
Model 2	1.03 (1.00-1.05)			.03
Model 3	1.04 (1.01-1.06)			.008
Fish intake (per 2 servings/wk)				
Model 1	1.00 (0.98-1.02)			.76
Model 2	1.00 (0.98-1.02)			.89
Model 3	1.00 (0.98-1.02)			.79



Replacing 3% of calories from animal protein with plant protein

Animal Protein Source by Cause of Death	HR (95% CI)
All cause	
Processed red meat	0.66 (0.59-0.75)
Unprocessed red meat	0.88 (0.84-0.92)
Poultry	0.94 (0.90-0.99)
Fish	0.94 (0.89-0.99)
Egg	0.81 (0.75-0.88)
Dairy	0.92 (0.87-0.96)
CVD	
Processed red meat	0.61 (0.48-0.78)
Unprocessed red meat	0.83 (0.76-0.91)
Poultry	0.91 (0.83-1.00)
Fish	0.88 (0.80- 0.97)
Egg	0.88 (0.75-1.04)
Dairy	0.89 (0.80-0.98)
Cancer	
Processed red meat	0.86 (0.71-1.04)
Unprocessed red meat	0.96 (0.89-1.03)
Poultry	0.99 (0.91-1.06)
Fish	0.98 (0.91-1.06)
Egg	0.83 (0.73-0.93)
Dairy	1.00 (0.93-1.09)



Replace red meat with plant proteins



Diabetes

Replace red meat with nuts, low fat dairy, whole grains, poultry, fish



Heart Disease

Replace red meat with nuts, beans, poultry, fish



Total mortality

Replace red meat with nuts, beans, low fat dairy, whole grains, poultry, fish



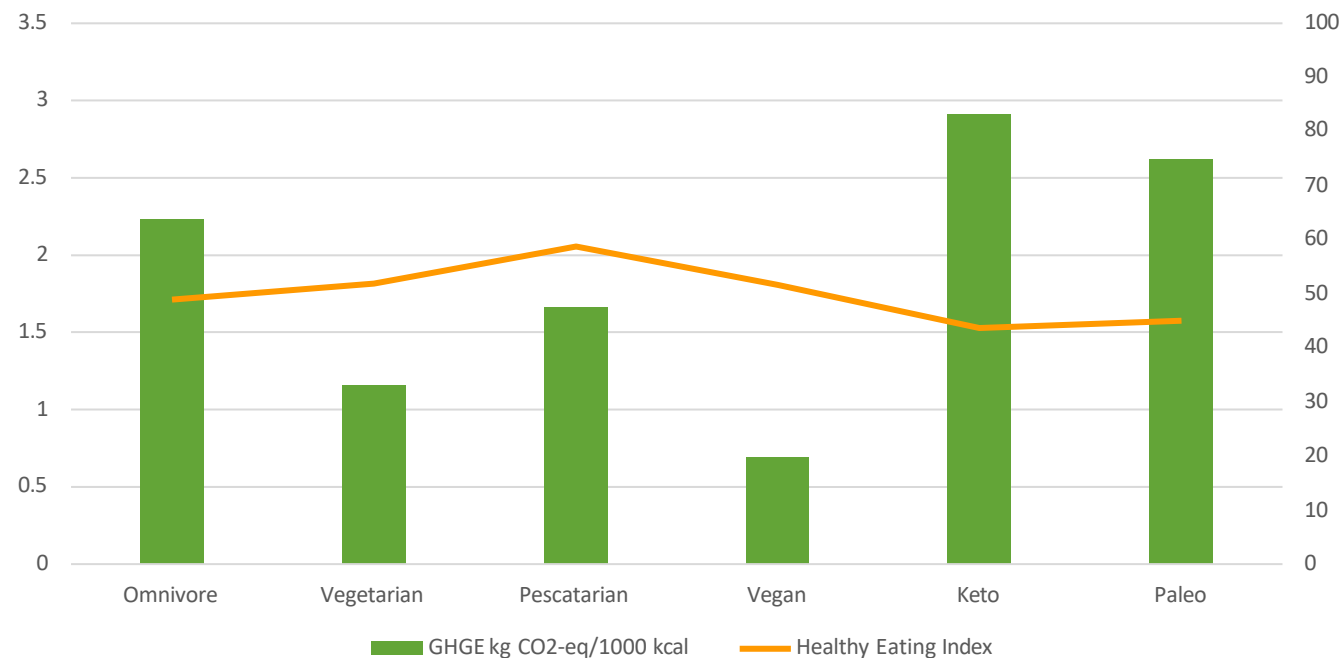
Processed meat consumption

- Strongest link to CVD and mortality (PURE study)
- Considered a group 1 carcinogen
- US consumption per NHANES, 21% of our meat consumption (by weight) is processed; has not declined
- Mostly red meat, but other components may contribute



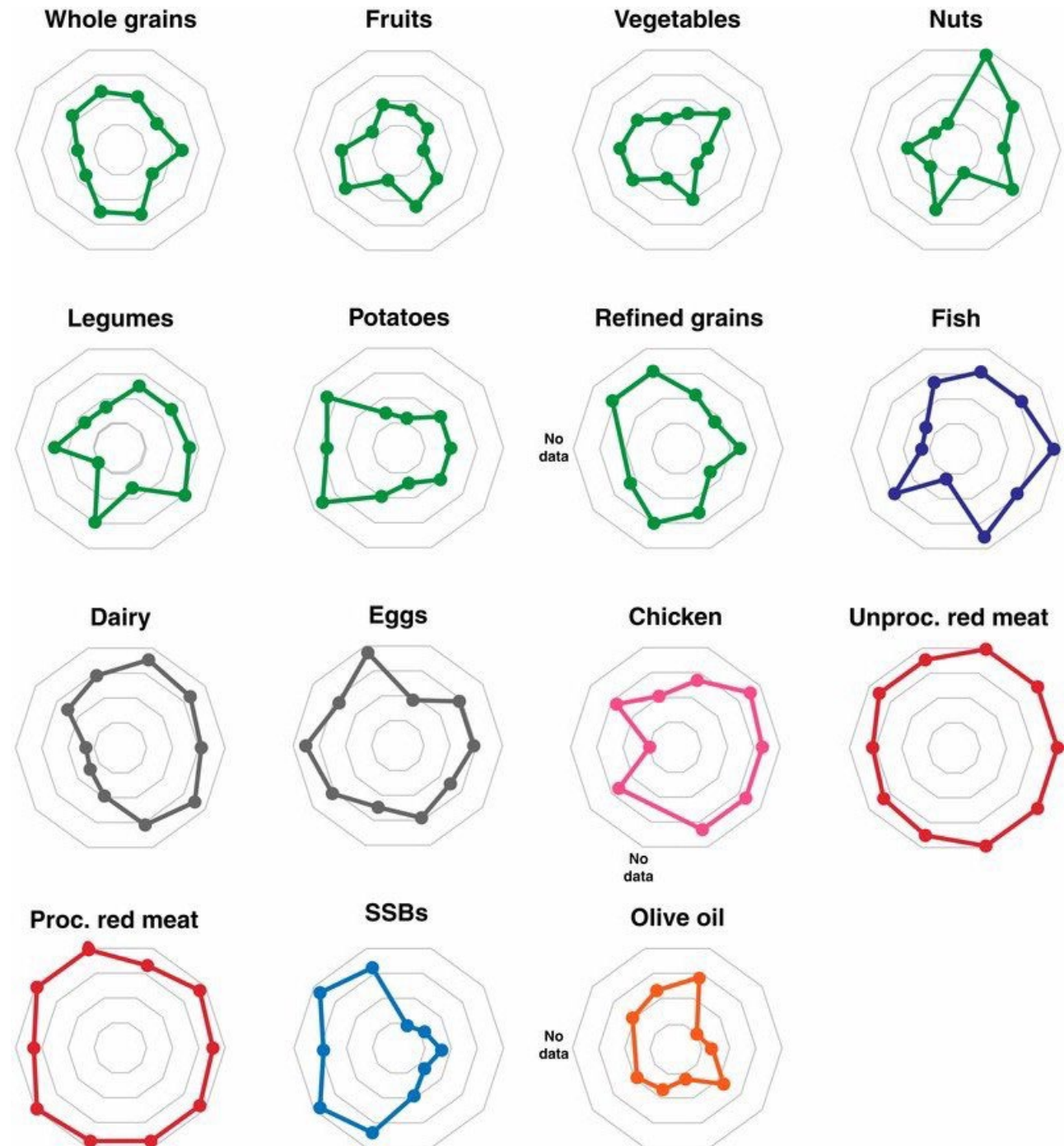
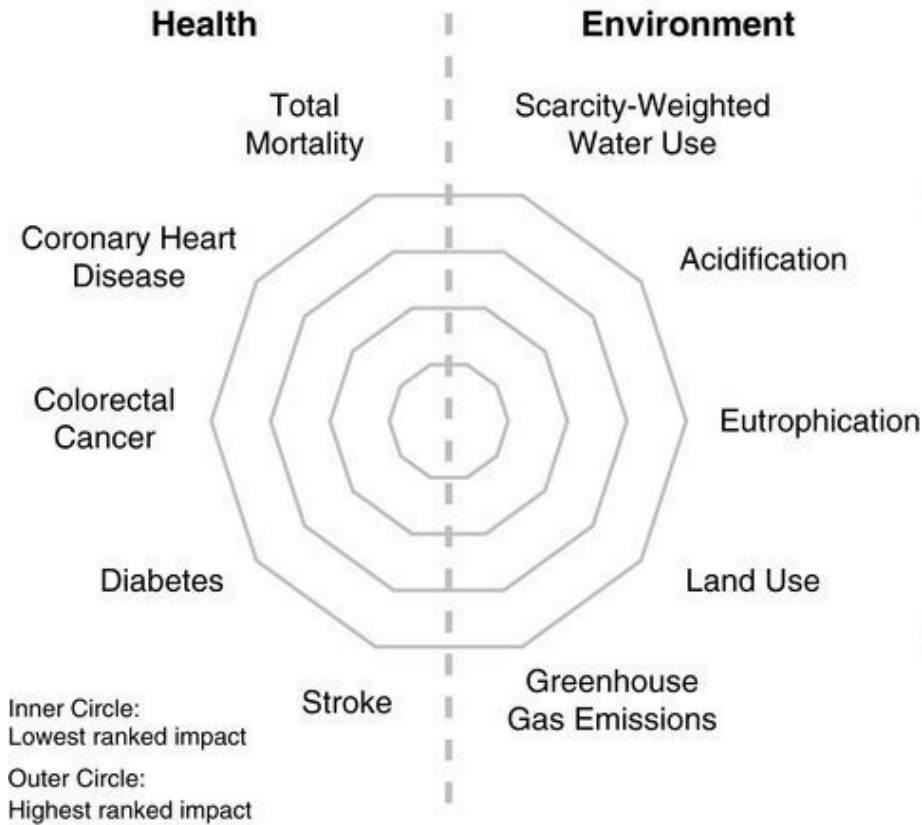
More plants = Healthy diet, healthy planet

Greenhouse gas emissions and quality of diets as reported by consumers, NHANES 2005–2010

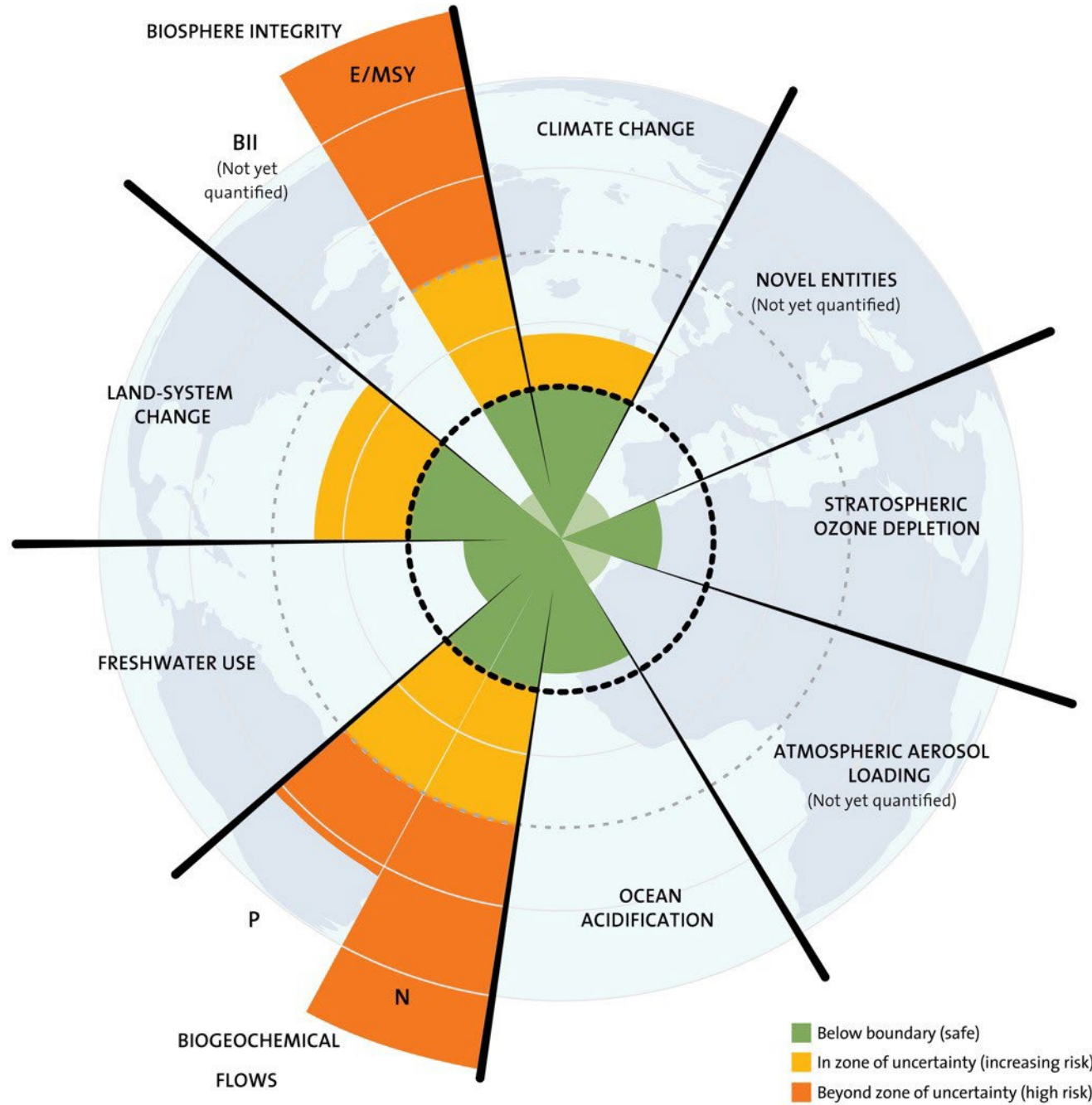


Diet patterns that are lower in meat have lower GHG emissions and score higher on the Healthy Eating Index-2010

Health and Environmental Impacts of Foods Consumed

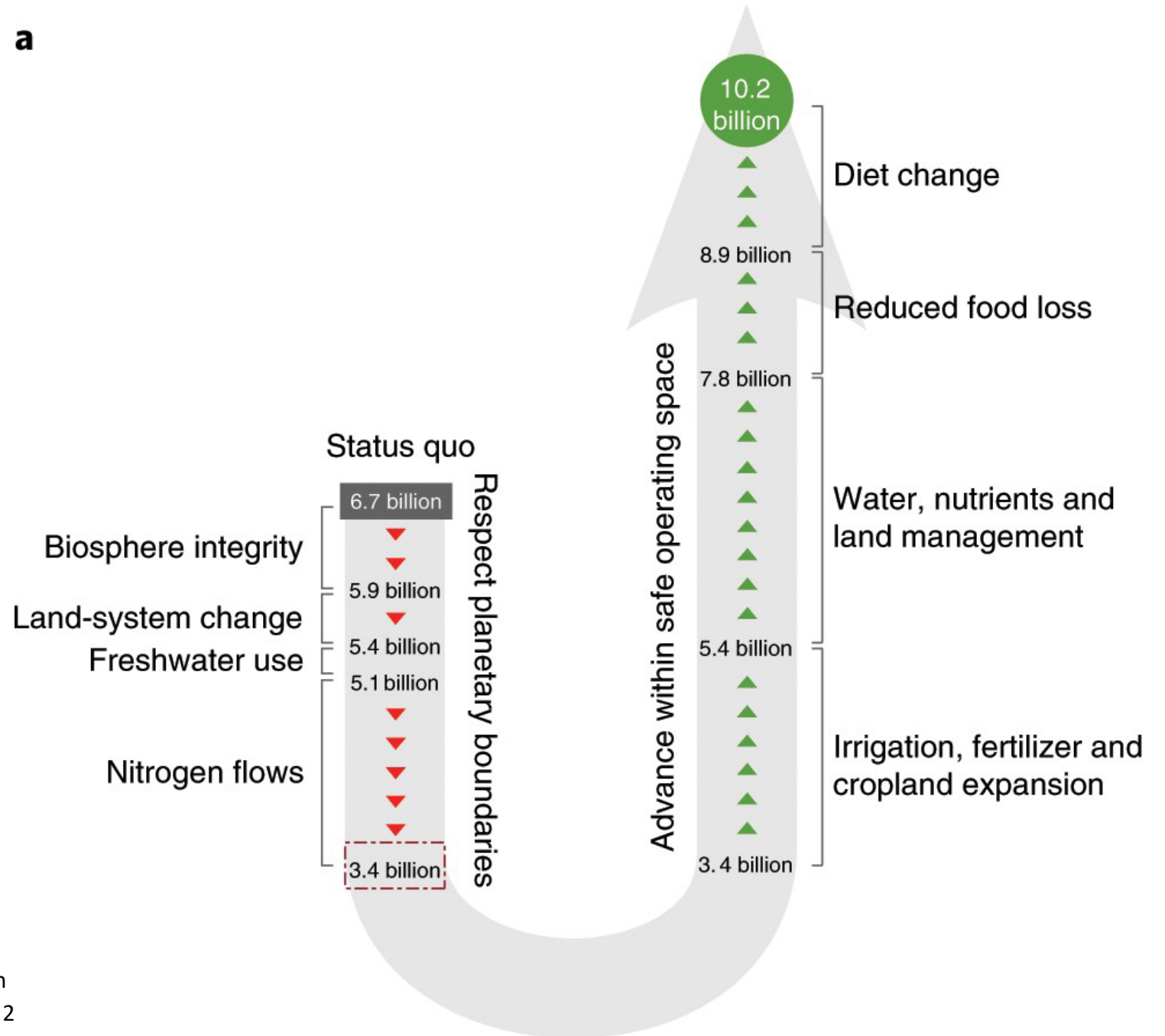


Planetary Boundaries



We need a technological and sociocultural U-turn!

a



Gerten, D., *et al.* Feeding ten billion people is possible within terrestrial planetary boundaries. *Nat Sustain* 3, 200–208 (20 2)

DRAWDOWN FRAMEWORK FOR CLIMATE SOLUTIONS

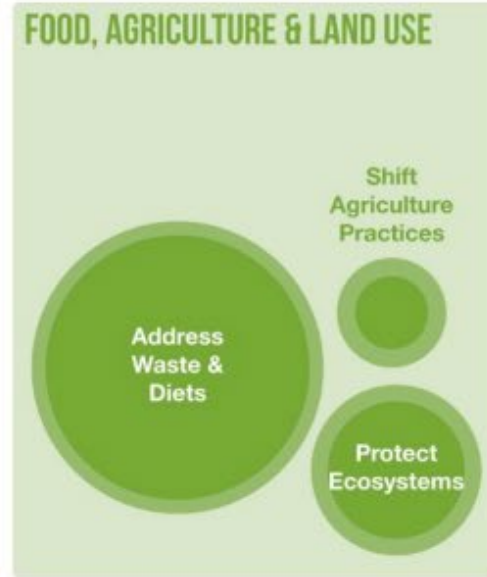
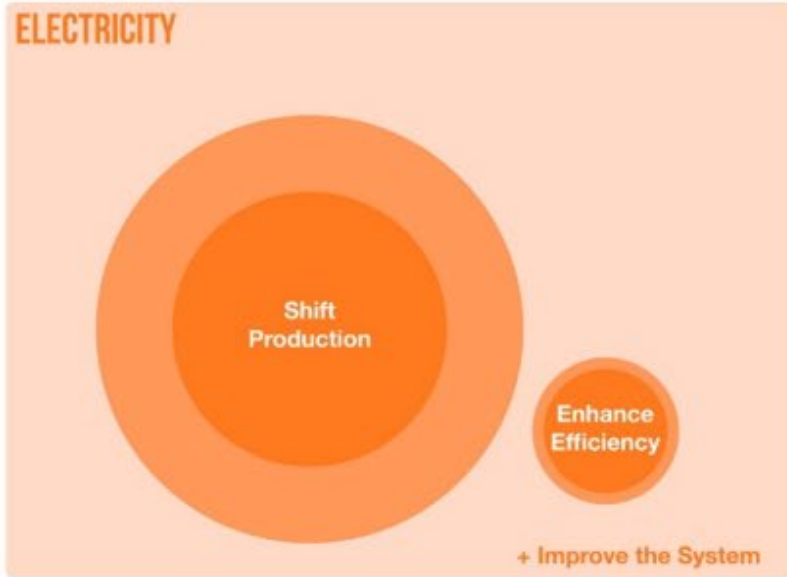
How to Read It

Size represents potential emissions reductions (CO₂-eq (Gt)) 2020-2050

SECTOR

MAX
MIN
Sub-group

1. REDUCE SOURCES



2. SUPPORT SINKS



COASTAL & OCEAN SINKS

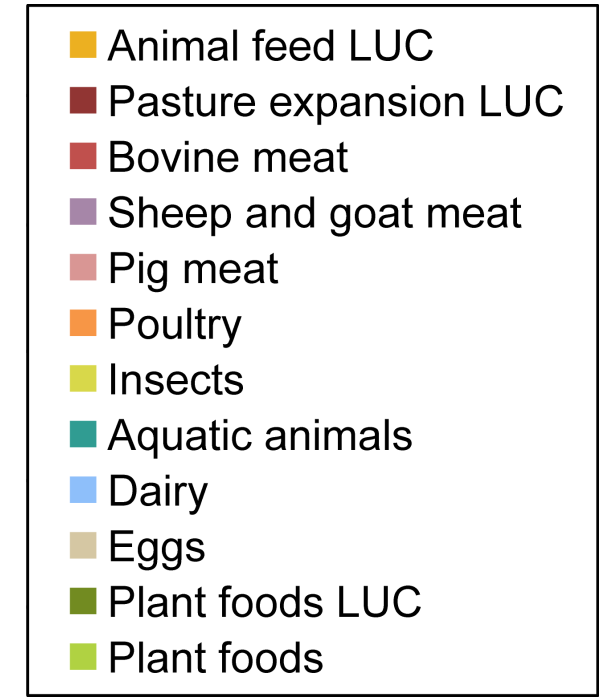
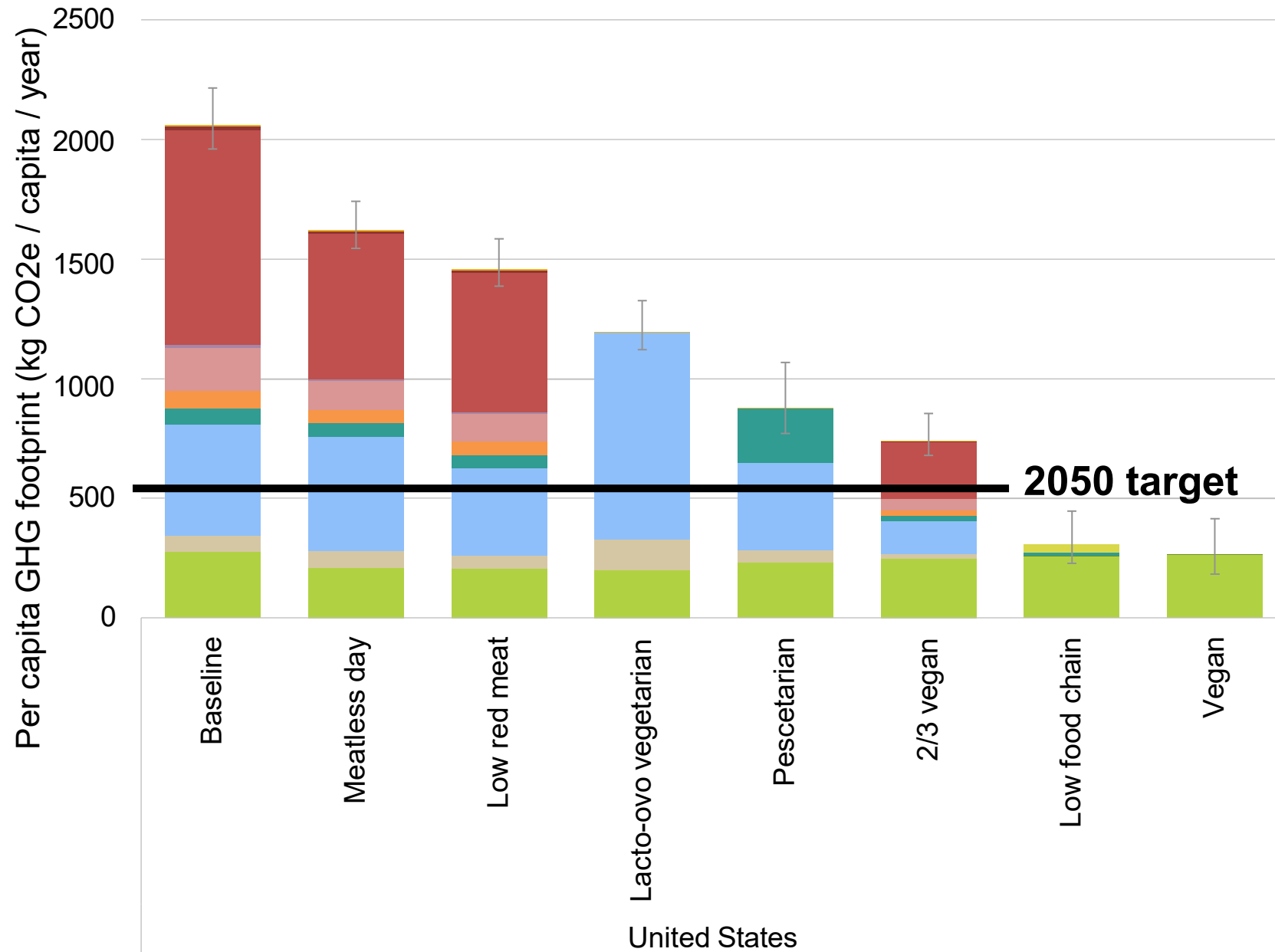
Protect & Restore Ecosystems

ENGINEERED SINKS

Remove & Store Carbon

3. IMPROVE SOCIETY





Kim BF, Santo RE, et al. Country-specific dietary shifts to mitigate climate and water crises. *Global Environmental Change*. 2019.

WHAT IS A HEALTHY, SUSTAINABLE DIET?

Socio-Cultural Health

- Worker Health & Safety
- Gender & Racial Equity

Planetary Health

- Carbon Footprint
- Food Loss & Waste
- Agri-Chemical Inputs



Human Health

- Nutritious Food & Diets
- Food Access & Affordability
- Food Safety

Economic Health

- Job Stability
- Living Wage

People and Planetary Health



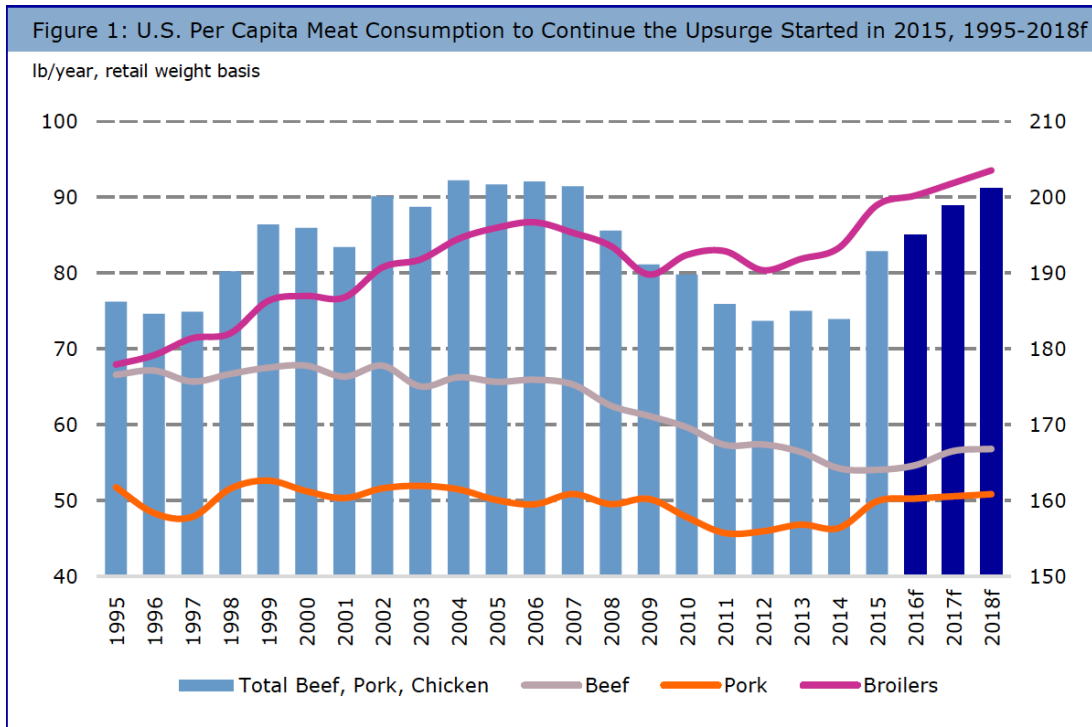
	Macronutrient intake grams per day (possible range)	Caloric intake kcal per day
 Whole grains Rice, wheat, corn and other	232	811
 Tubers or starchy vegetables Potatoes and cassava	50 (0-100)	39
 Vegetables All vegetables	300 (200-600)	78
 Fruits All fruits	200 (100-300)	126
 Dairy foods Whole milk or equivalents	250 (0-500)	153
 Protein sources Beef, lamb and pork Chicken and other poultry Eggs Fish Legumes Nuts	14 (0-28) 29 (0-58) 13 (0-25) 28 (0-100) 75 (0-100) 50 (0-75)	30 62 19 40 284 291
 Added fats Unsaturated oils Saturated oils	40 (20-80) 11.8 (0-11.8)	354 96
 Added sugars All sugars	31 (0-31)	120

Guiding principles for a sustainable diet (1)

- **Eat less meat & dairy (for most):**
 - Replace animal proteins with healthy vegetable proteins (beans, lentils, nuts)
 - Emphasize sustainably produced animal foods
 - Moderate portions of dairy
 - Choose sustainable sources, including seafood



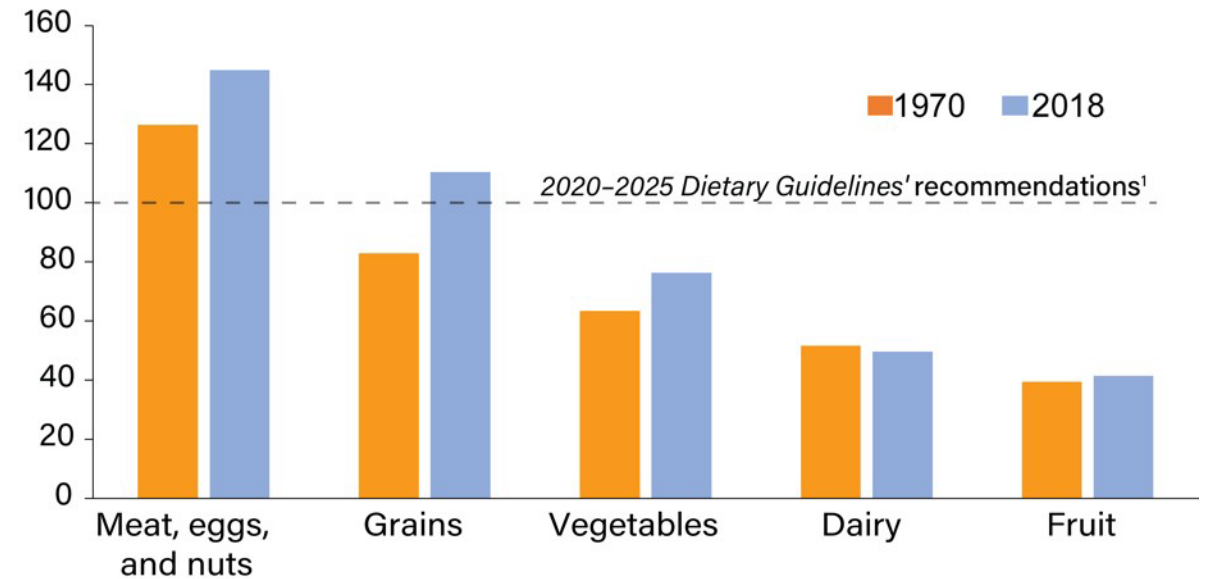
Meat consumption in the US



Source: USDA, Rabobank 2016

Estimated average U.S. consumption compared to recommendations, 1970 and 2018

Percent of 2020-2025 Dietary Guidelines' recommendations



¹Based on a 2,000 calorie-per-day diet.

Notes: Loss-adjusted food availability data are proxies for consumption. Rice availability data were discontinued in 2010 and thus are not included in the grains group.

Source: USDA, Economic Research Service, Loss-Adjusted Food Availability Data and 2020-2025 Dietary Guidelines.

Better Meat or Less Meat?



- ✓ Raised without antibiotics
- ✓ Grass fed, pasture raised
- ✓ Humanely raised



- Healthier soil
- Fewer antibiotics
- Possible nutritional value
- Food system workers health

Dairy – the conundrum

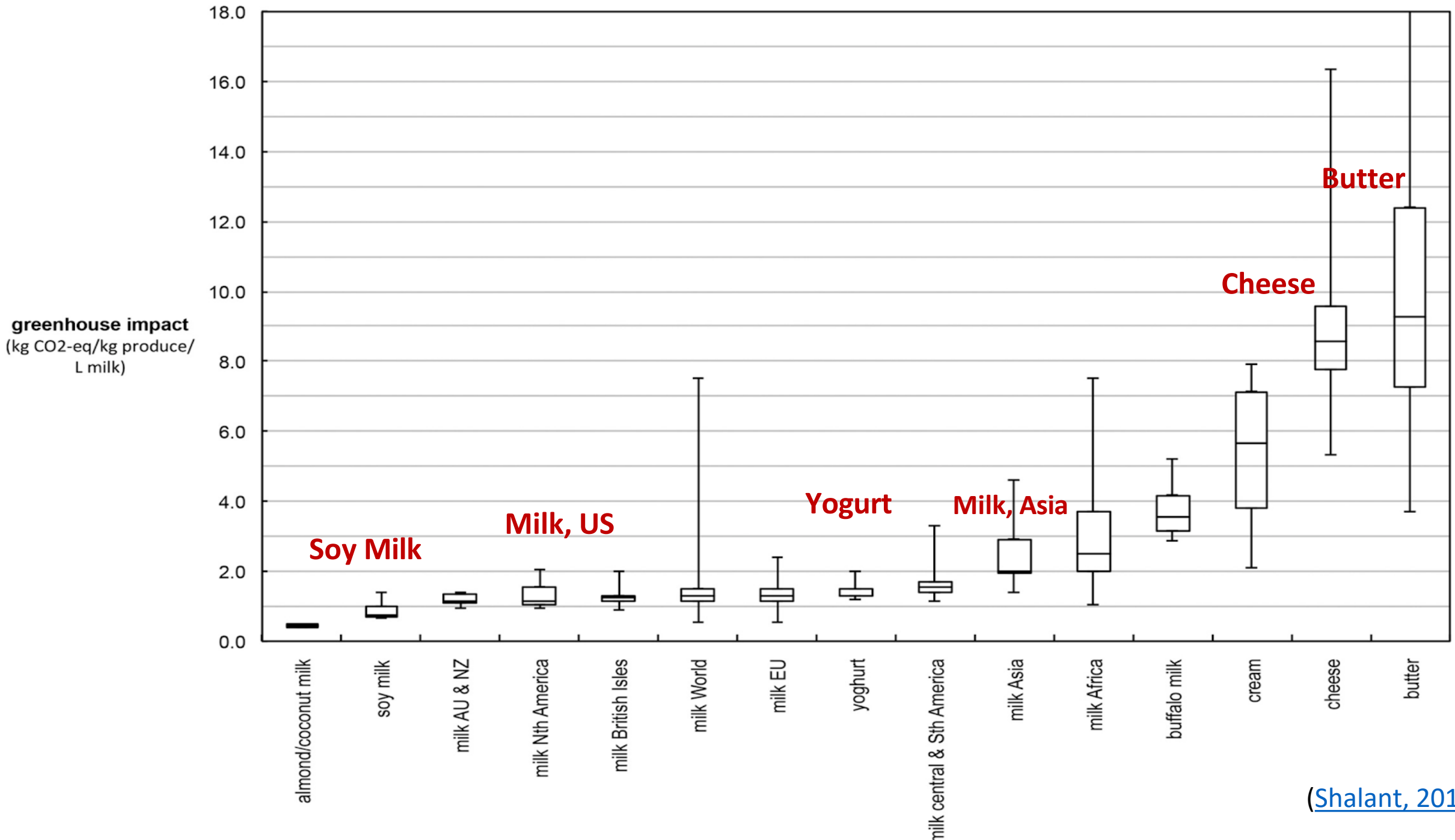
Health

- Source of critical micronutrients (calcium, magnesium, phosphorus, zinc)
- Among children in LMIC, intake associated with growth and cognition
- Evidence of protection against serious heart disease and ACM
- Plant-based alternatives are more varied nutritionally



Environment

- More GHGe/L than dairy alternatives but greater nutrient density per GHGe
- Variation by products, depend on quantity of milk
- Most impact from animal feed production and farm activities; solid waste disposal in lagoons



([Shalant, 2017](#)).

Guiding principles for a sustainable diet (2)

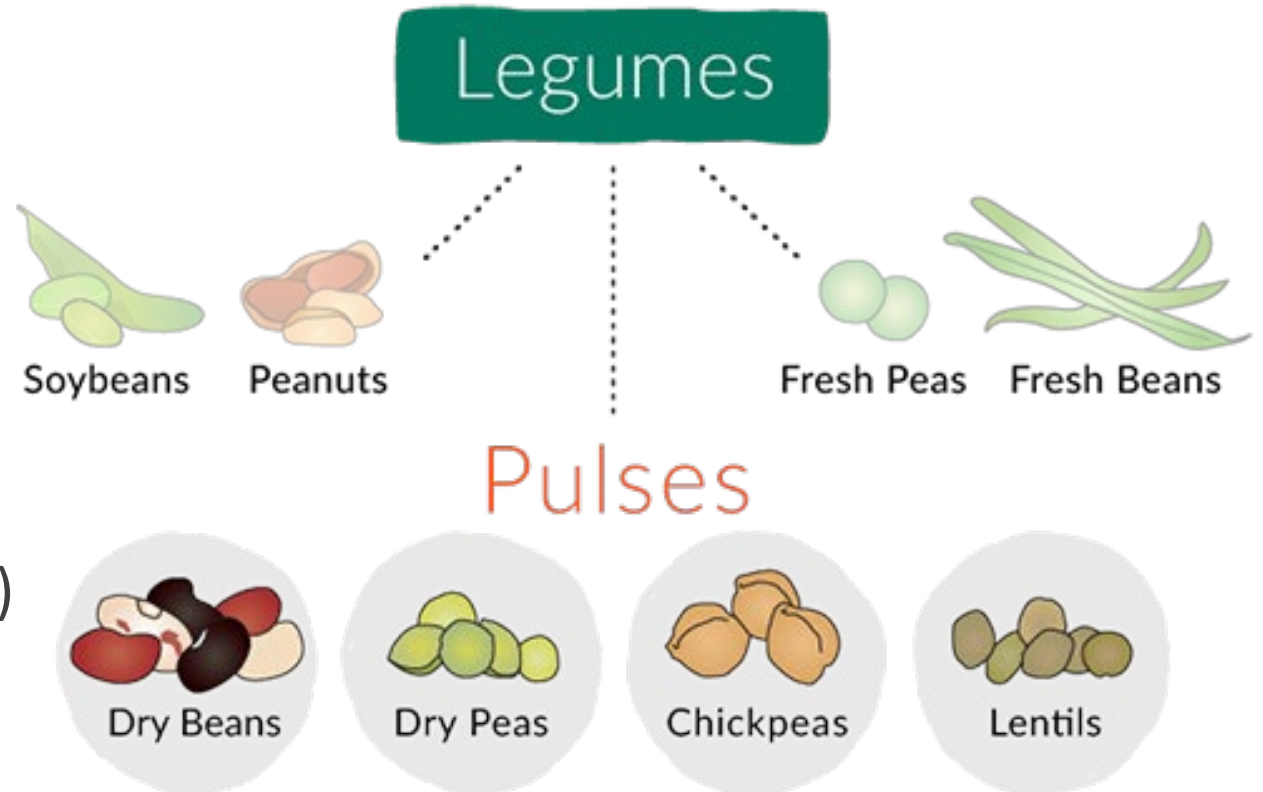
Consume more whole grains, vegetables, legumes and nuts

- Choose healthy plant proteins
- Choose a variety of whole grains, reduce reliance on staples
- Purchase local produce in season
- Focus on diversity and variety



Legumes (pulses)

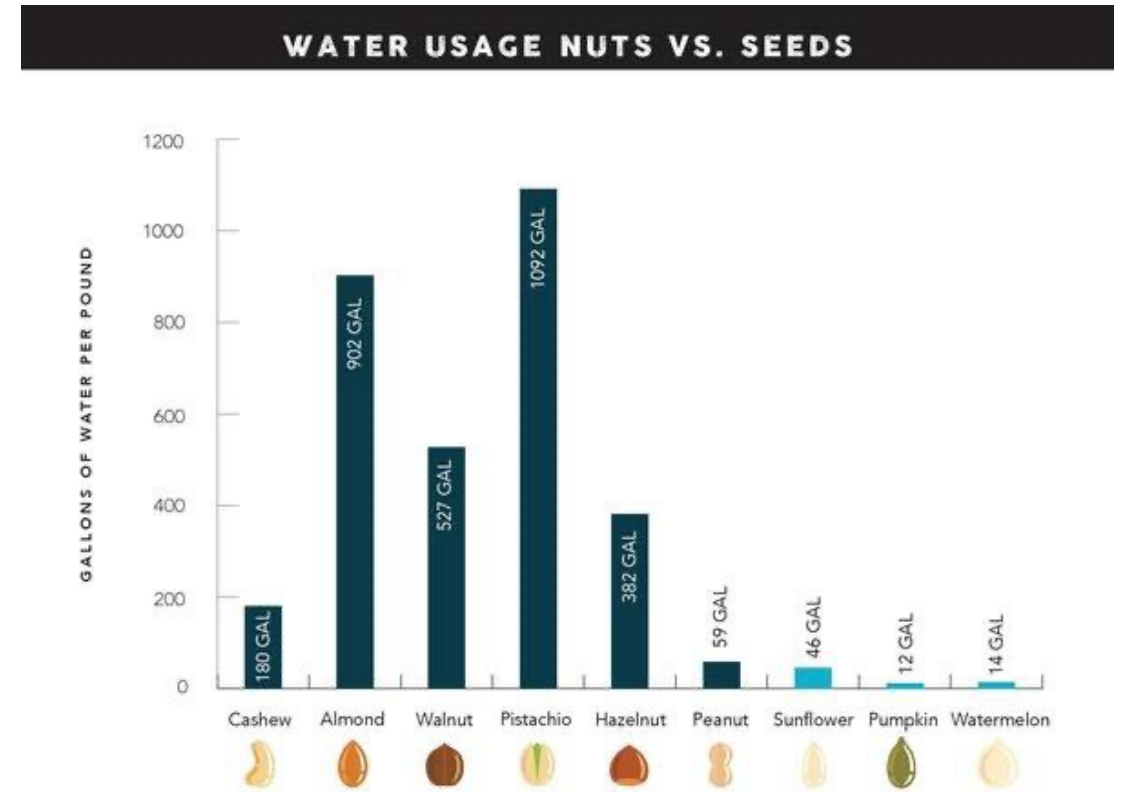
- ▶ Legumes
 - ▶ High in protein, fiber, vitamins
 - ▶ Inexpensive
 - ▶ Easy to grow, good for soil (nitrogen fixer)
- ▶ Soy
 - ▶ “Complete” protein - PDCAA
 - ▶ High in isoflavones (plant estrogens)
 - ▶ Strong evidence –LDL cholesterol, blood pressure, kidney health
 - ▶ Processed vs unprocessed



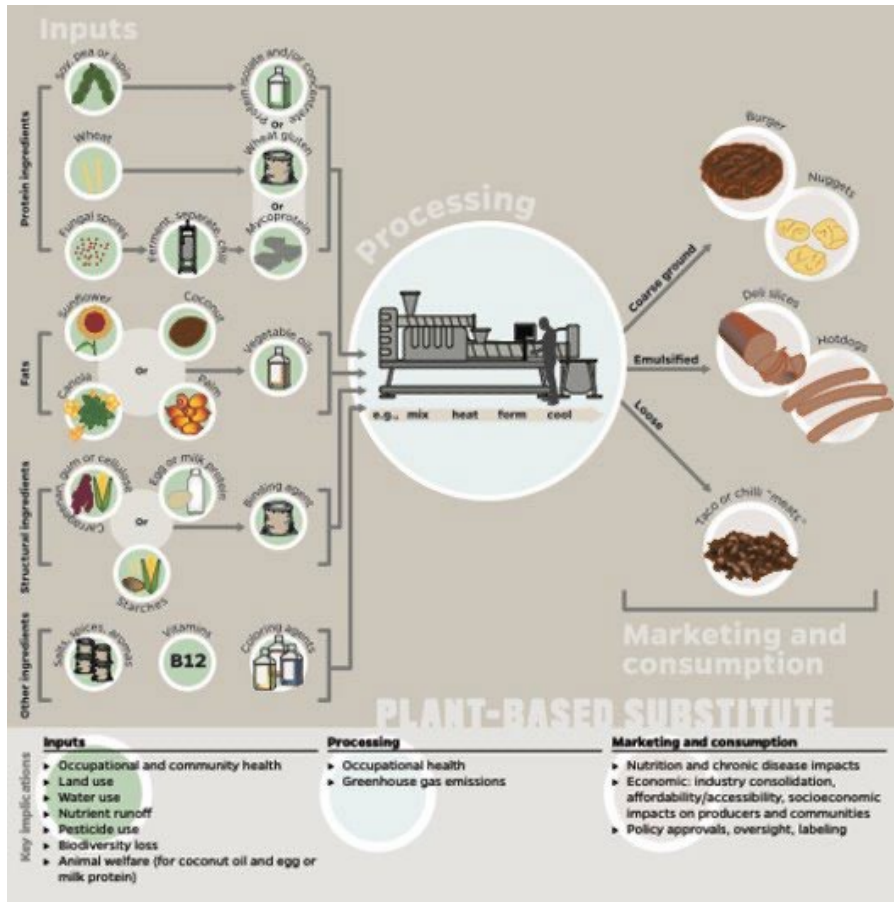
Nuts and seeds



- Source of protein and healthy fats
 - Omega-3 (ALA), MUFA's and PUFA's – especially flax, walnuts & chia
 - Fiber, micronutrients
- Ecological
 - Water – green v. blue
 - Yields (trees = higher yields)
 - Soil (peanut = N fixing)

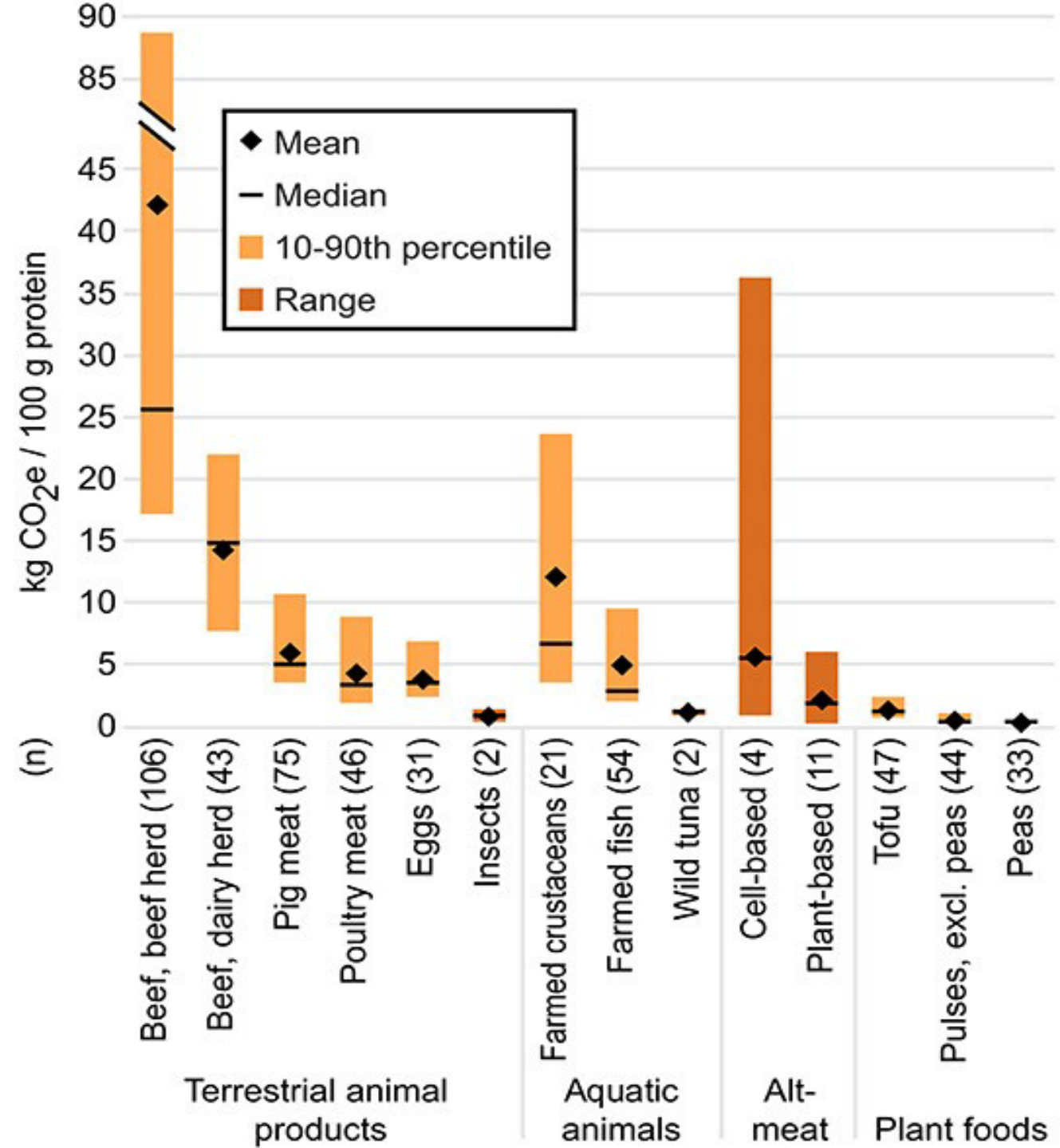


"Alt Meats"



- ▶ Products derived from plant-based ingredients, designed to imitate the entire experience of eating certain meats
- ▶ Most use soy, wheat, or pea protein isolates
- ▶ Does not include natural foods that mimic certain characteristics of meat (e.g., pulses, mushrooms) or products that can be used in similar ways but aren't designed to replicate meat (e.g., tofu, tempeh, seitan)

Plant-based proteins differ in nutrition and environmental impacts

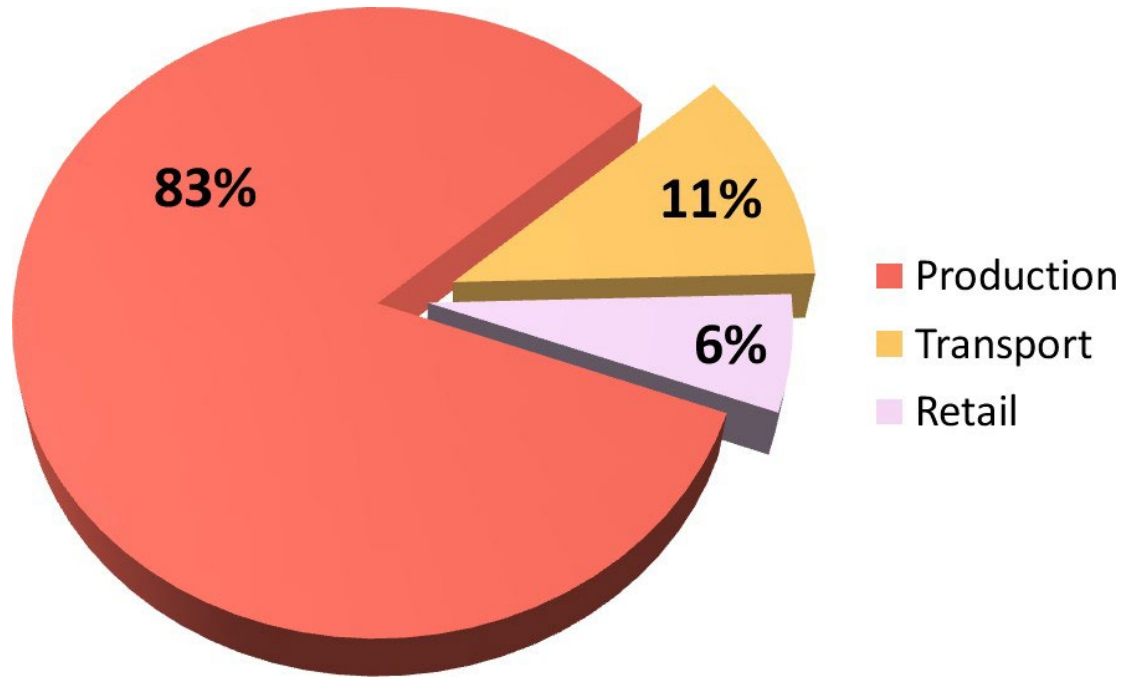


Whole grains

- Whole grains and fiber
 - Type 2 Diabetes (barley, buckwheat, brown rice, oats, rye, millet, corn)
 - Healthy weights
- Source of protein
- Variety > Monoculture
- Cover crops for soil fertility: triticale, oats, rye, barley



Local, organic, and beyond



US GHG emissions by food supply chain stage

Other sustainable practices

- Integrated Pest control
- Soil protection and crop rotation
- Water conservation
- Organic

Benefits

- Lower environmental impact, care of soil
- Nutrient value possibly better in organic, higher Phenols
- More variety
- Supporting farm communities and workers

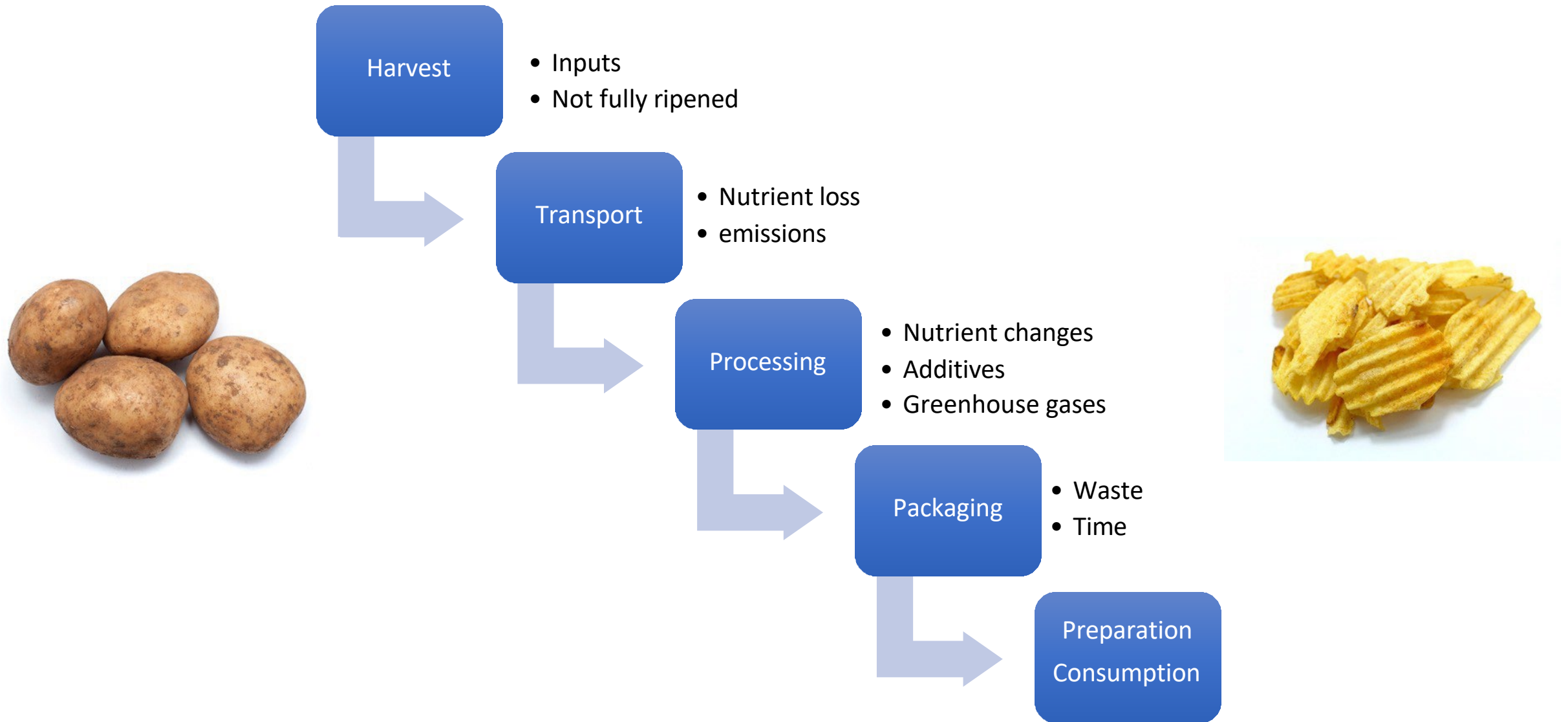
Guiding principles for a sustainable diet (3)

Eat fewer highly-processed foods

- Less sugars and salt
- Homecooked meals more often
- Less fast food
- Less processed and less packaging
- Reduce waste



The Food Journey



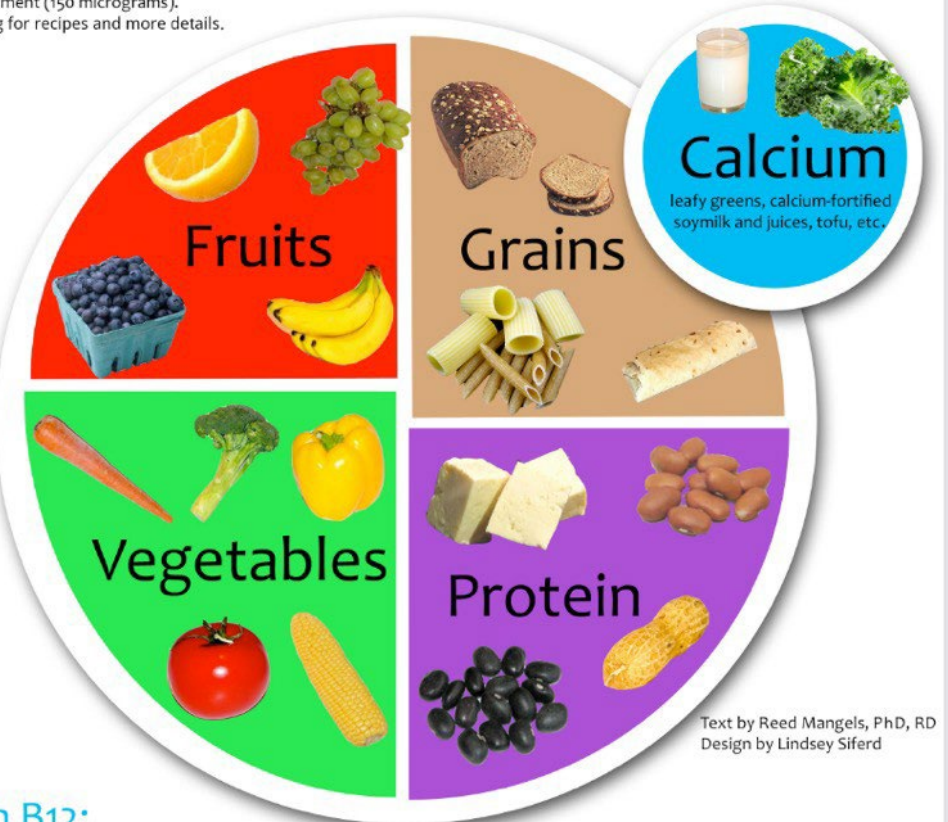


EAT Lancet Planetary Health Diet

Vegan MY ^ PLATE

Nutrition Tips:

- *Choose mostly whole grains.
- *Eat a variety of foods from each of the food groups.
- *Adults age 70 and younger need 600 IU of vitamin D daily. Sources include fortified foods (such as some soymilks) or a vitamin D supplement.
- *Sources of iodine include iodized salt (3/8 teaspoon daily) or an iodine supplement (150 micrograms).
- *See www.vrg.org for recipes and more details.



Text by Reed Mangels, PhD, RD
Design by Lindsey Siferd

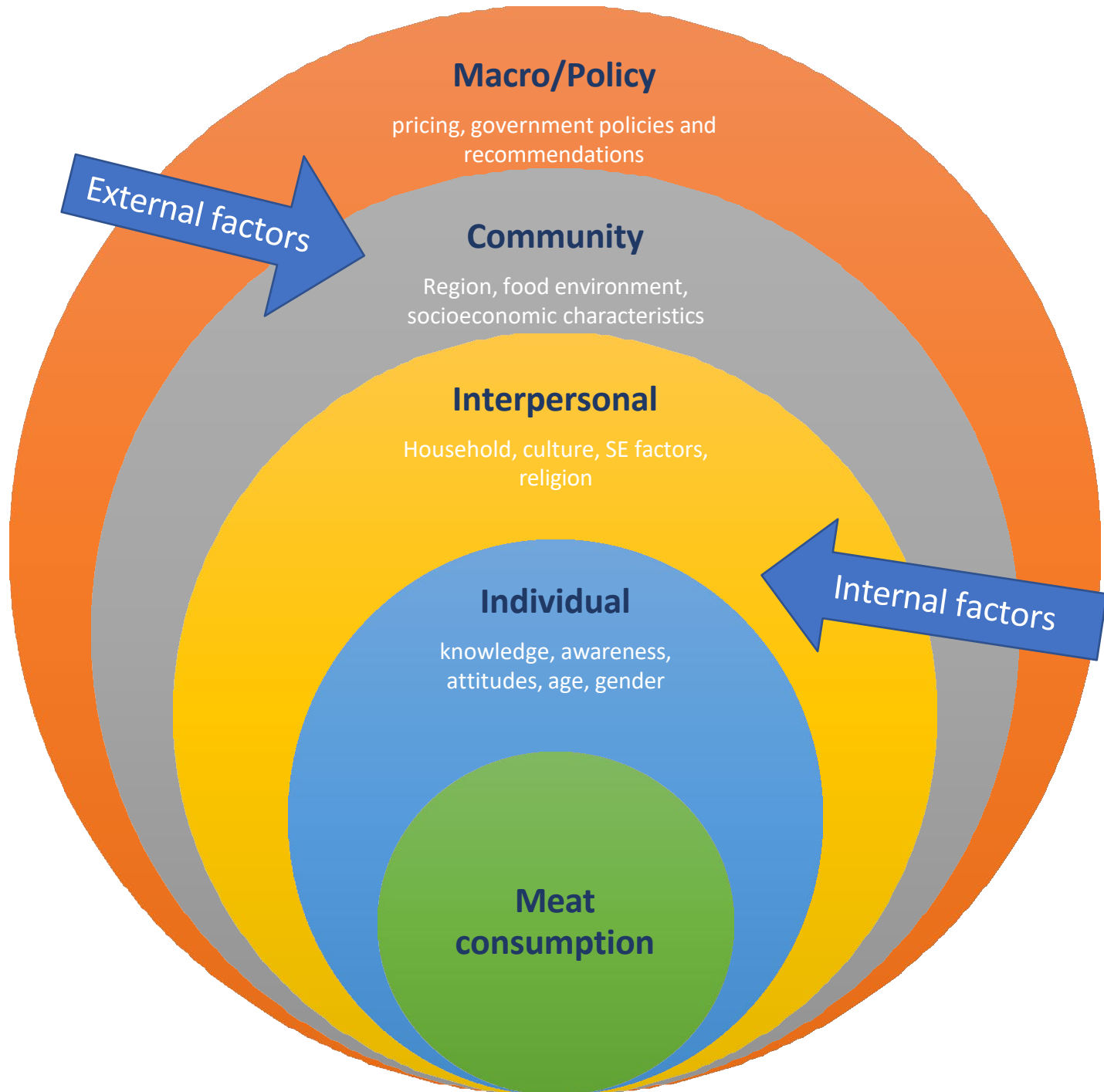
Vitamin B12:

Vegans need a reliable source of vitamin B12. Eat daily a couple of servings of fortified foods such as B12-fortified soymilk, breakfast cereal, meat analog, or Vegetarian Support Formula nutritional yeast. Check the label for fortification. If fortified foods are not eaten daily,



Shifting Choices

Drivers of Meat Consumption



Macro/Policy: pricing and marketing of meat, government policies and recommendations

Community/Institution: Geographic region, urban vs. non-urban, food environment, school/workplace environment, socioeconomic characteristics, media, culinary trends, availability and attractiveness of alternative proteins

Interpersonal: Household dietary norms, culture, relationships, friends/family's dietary practices, SE factors, religion

Individual: knowledge, awareness, attitudes, values (moral disengagement, openness to change, altruism), age, gender, health, environment and animal welfare concerns

Barriers To Meat Reduction

- Taste preferences
- Dietary patterns and culture
 - ▶ Convenience, habit
 - ▶ Culturally preferred foods
 - ▶ Sign of prosperity
 - ▶ Identity, masculinity
- Knowledge
 - ▶ Environmental impacts
 - ▶ Nutritional needs
- Industry power, livelihoods



Public Health Nutrition

NS THE NUTRITION SOCIETY
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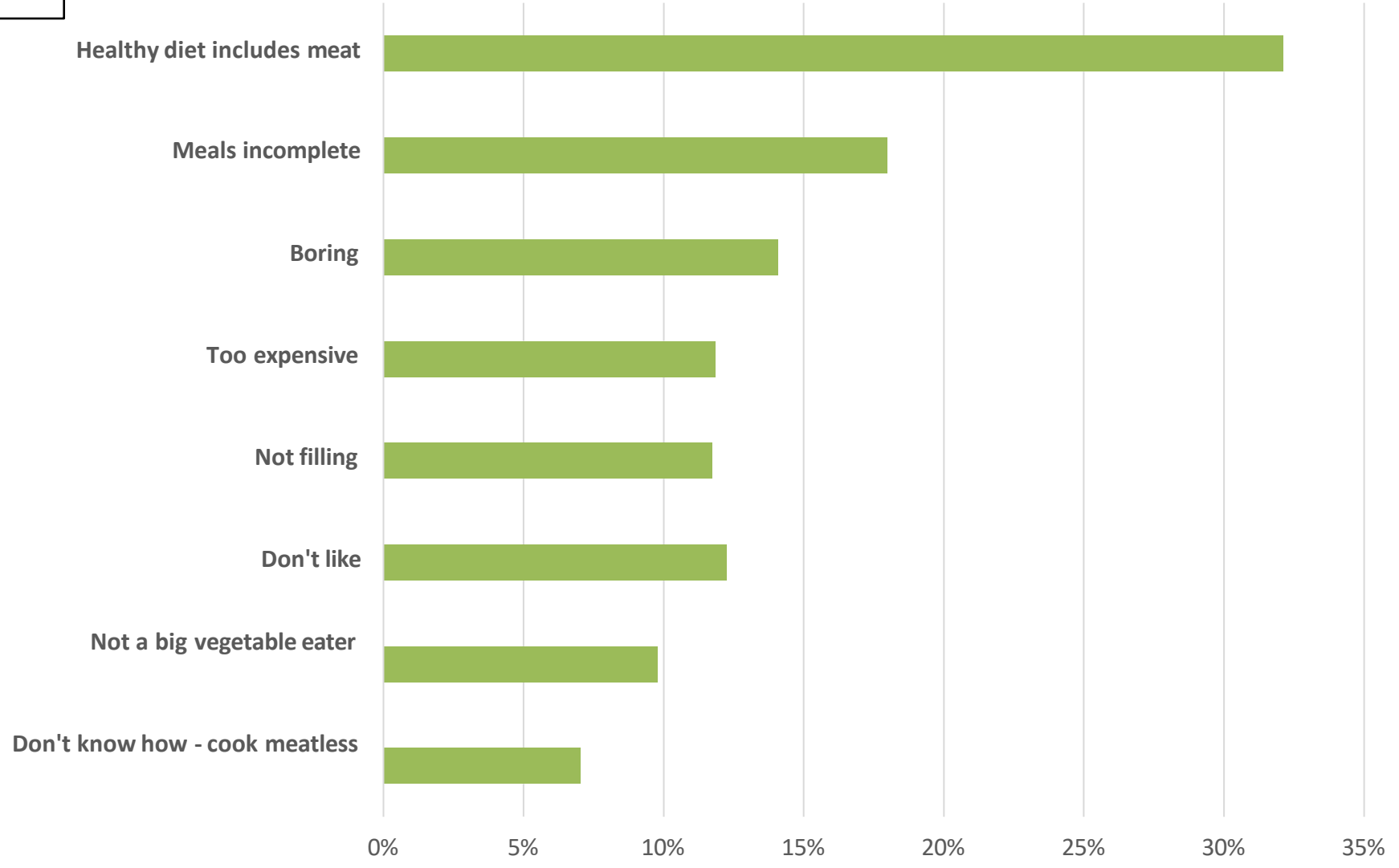
Reducing meat consumption in the USA: a nationally representative survey of attitudes and behaviours

Roni A Neff ^(a1) ^(a2) ^(a3), Danielle Edwards ^(a2) ^(a3), Anne Palmer ^(a3) ^(a4), Rebecca Ramsing ^(a3) ... ^(a)

<https://doi.org/10.1017/S1368980017004190> Published online: 26 March 2018

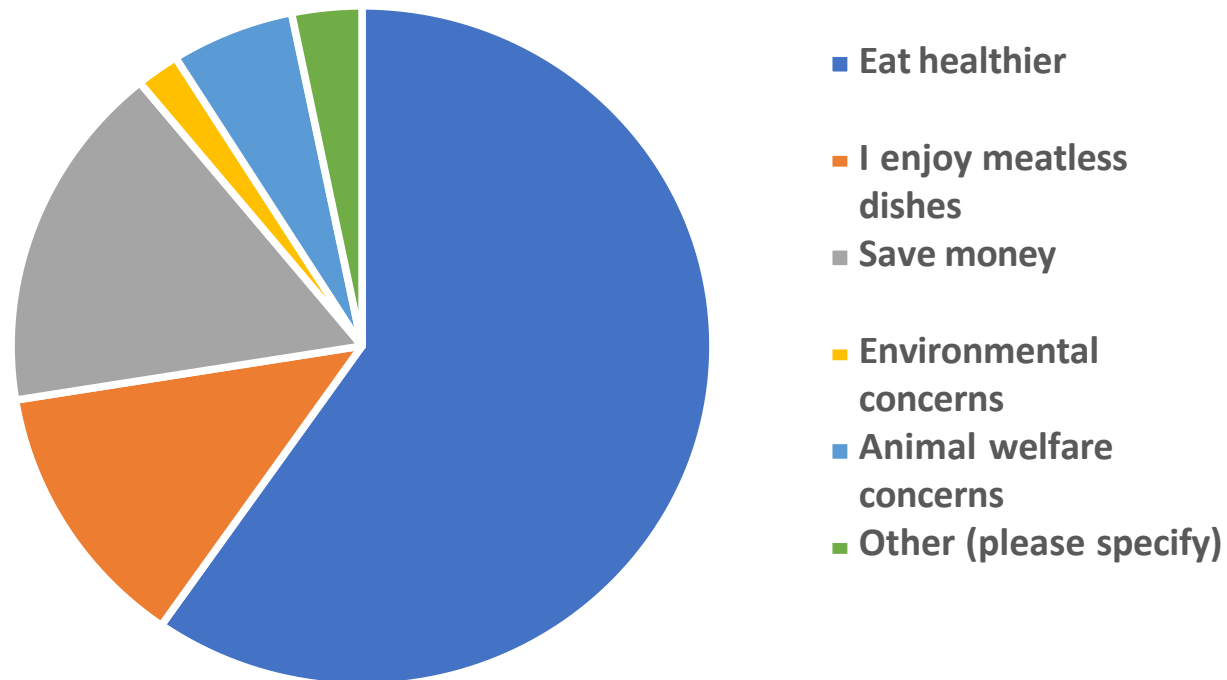
Non-Reducers: Agreement with Statements

Neff, Edwards, Righter,
Palmer, Wolfson, 2017



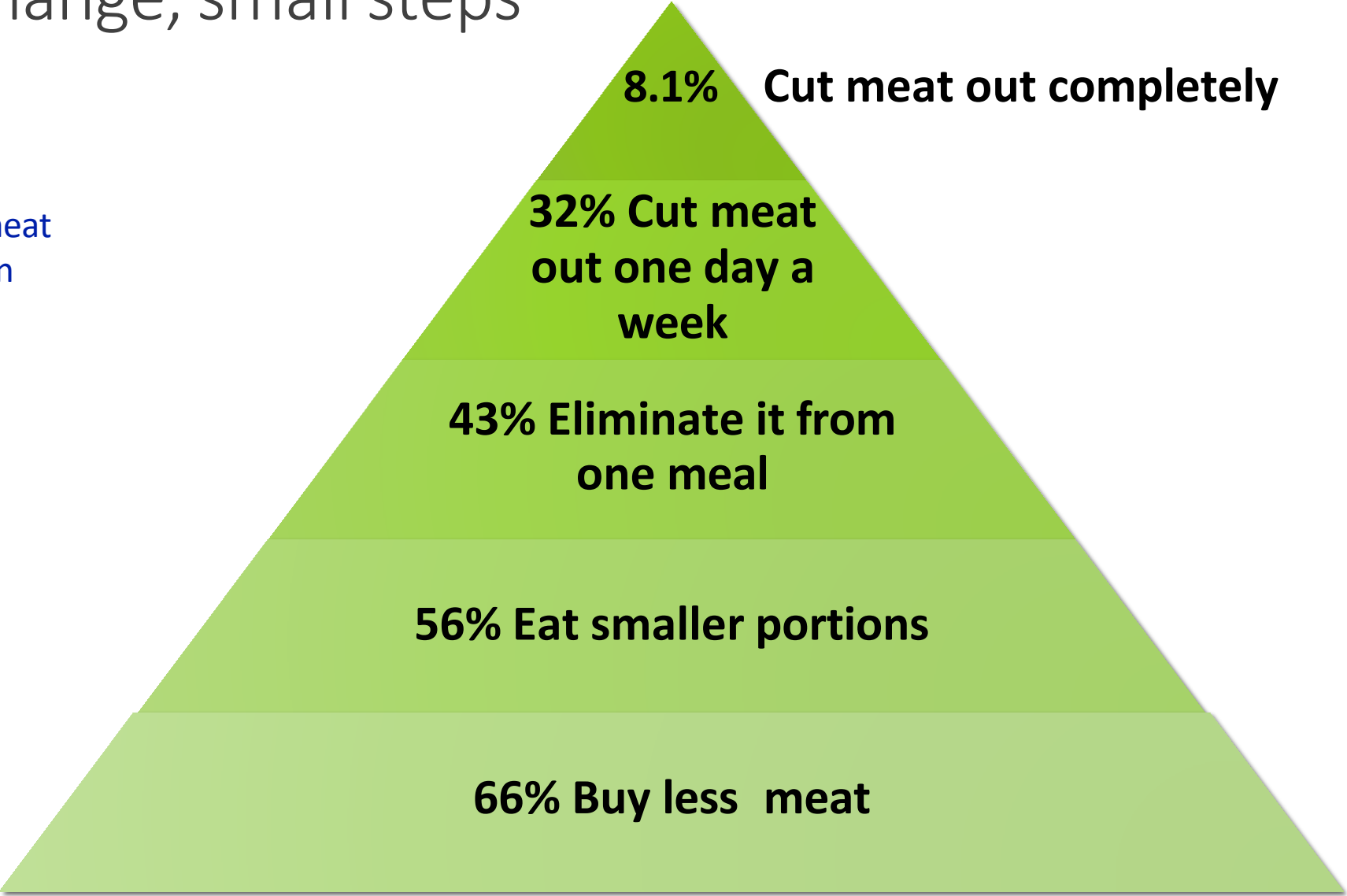
Reasons people do reduce meat

What is the PRIMARY REASON you do not eat meat, cut back on meat in the past, or are considering cutting back on the amount of meat you eat?



Gradual change, small steps

62% ate less meat of some type in past year



Making the Connection

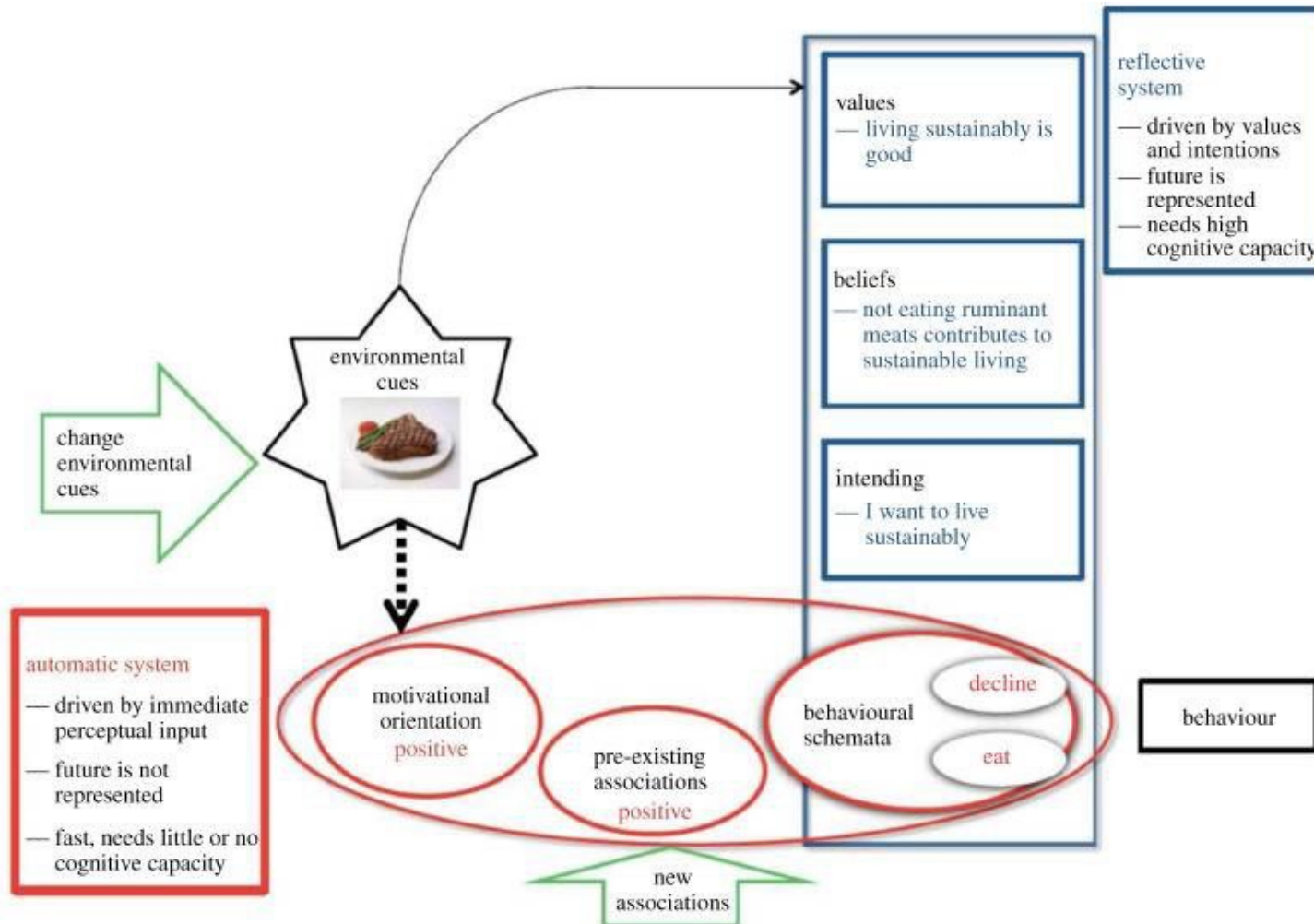


- ▶ Awareness of diet-climate is low
- ▶ Meat intake is valued
- ▶ Awareness raising is first step but unlikely to prompt shifts
- ▶ Nudges are not enough
- ▶ Combined approaches that raise awareness and facilitate access and remove barriers are likely to be most accepted and successful

Cabbage field Image by venture_out from Pixabay <https://pixabay.com/photos/farm-garden-rows-cabbages-1094434/>

Grocery store by Image by Peggy cci from Pixabay <https://pixabay.com/photos/grocery-store-market-supermarket-2619380>

Automatic & Reflective Systems Guiding Behavior



Marteau TM. Towards environmentally sustainable human behaviour: targeting non-conscious and conscious processes for effective and acceptable policies. *Phil. Trans. Soc. A* 375:20160371

The Power of the Food Environment



“Health, wellness and sustainability are starting to converge at the most progressive food retail and food service outlets.

Consumers see the convergence as being all about mindfulness, integrity and authenticity.”

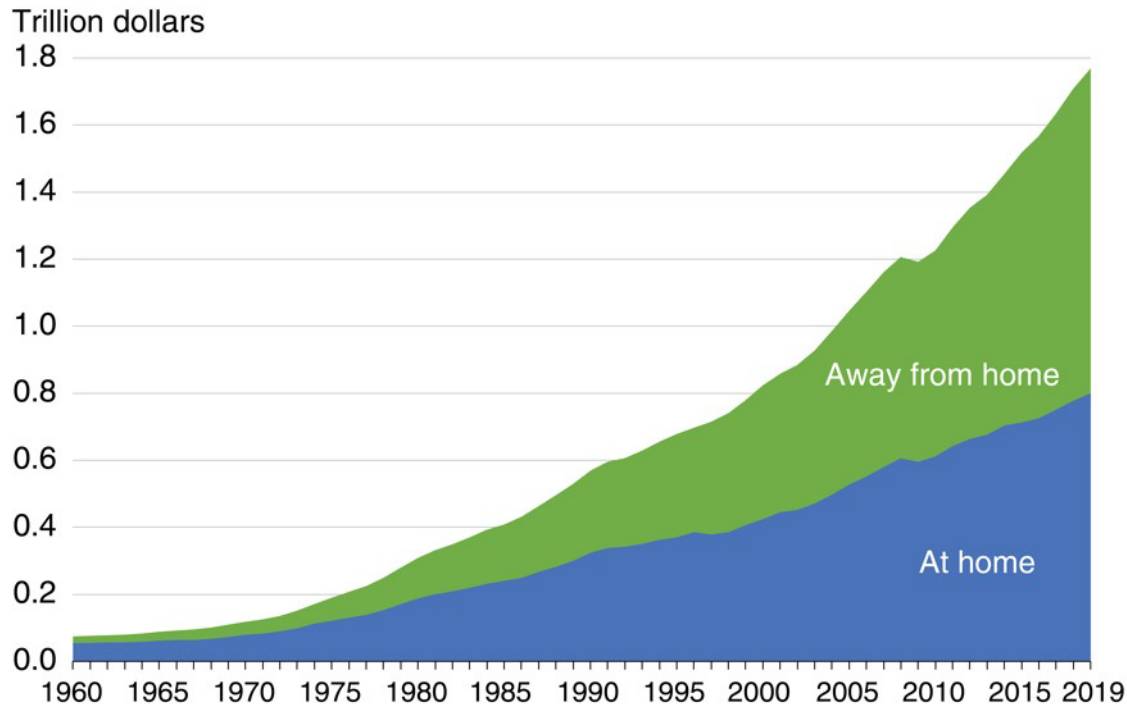
Hartmann Group

The Power of the Consumer

- Continued interest in eating less meat
- Changing menus
 - Vegetables taking center of the plate
 - New and diverse ingredients
- Demand for more transparency, sustainability and new ingredients

The Power of Food Service and Retail

Food-at-home and away-from-home expenditures in the United States, 1960-2019



Source: USDA, Economic Research Service, Food Expenditure Series.

- Touches many consumers
- Can influence food & culinary trends
- Can demonstrate leadership in sustainability and health
- Test approaches

Labels & Nudges

Taste focused labels performed best

Traffic Lights

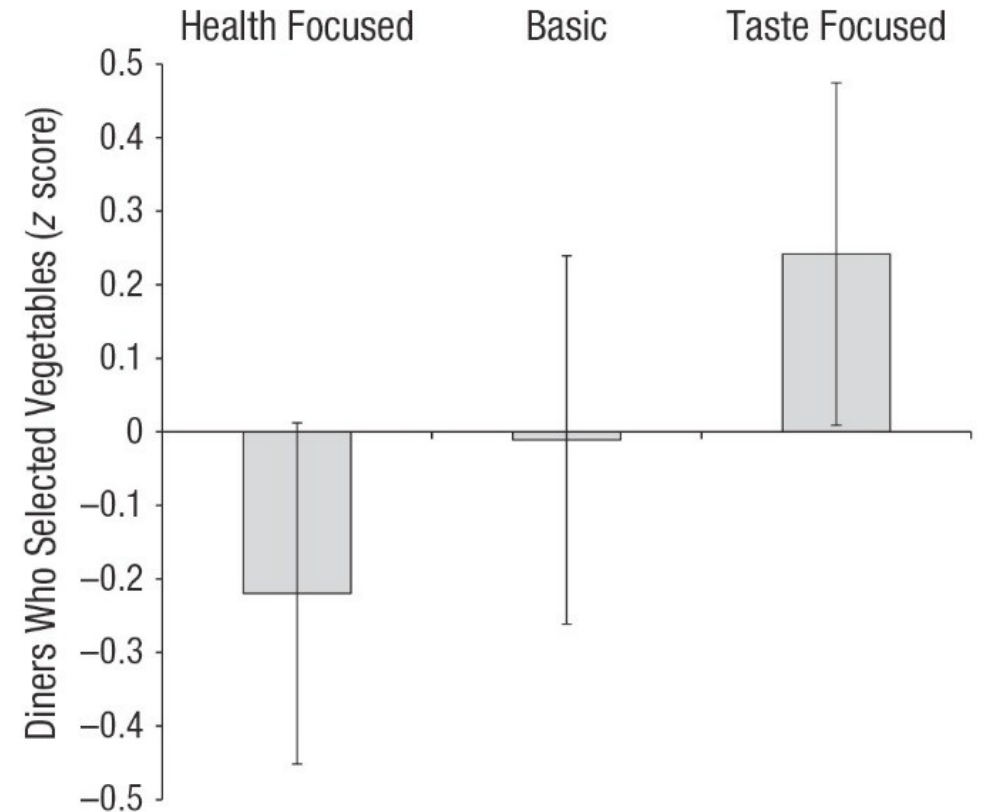
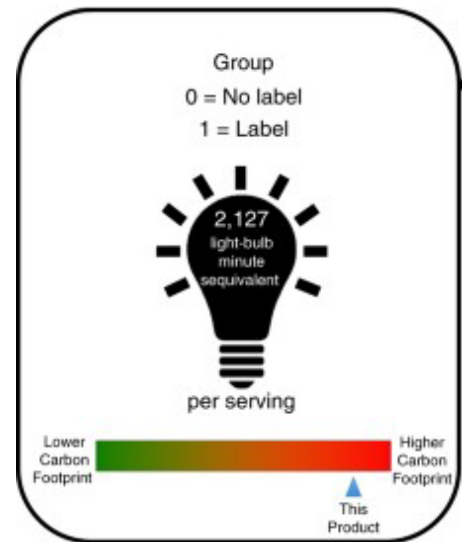


Fig. 1. Proportion of diners across all five schools in the multisite study who selected vegetables, separately for each labeling condition. Error bars represent 95% confidence intervals of the model estimate for each labeling condition.

Chefs and culinary influencers

- Drive culinary trends
- Introduce flavors, ingredients
- Influence trends
- Valuable role in crisis and resilience





The Power of Procurement

- ▶ Good Food Purchasing Program
 - ▶ Local economies
 - ▶ Environmental sustainability
 - ▶ Animal welfare
 - ▶ Health & Nutrition
 - ▶ Valued workforce

PRINCIPLES
OF HEALTHY, SUSTAINABLE MENUS

MENUS CHANGE The Business of Healthy, Sustainable, Delicious Food Choices | CULINARY INSTITUTE OF AMERICA | HARVARD T.H. CHAN SCHOOL OF PUBLIC HEALTH Department of Nutrition

BE TRANSPARENT ABOUT SOURCING AND PREPARATION

BUY FRESH AND SEASONAL LOCAL AND GLOBAL

REWARD BETTER AGRICULTURAL PRACTICES | LEVERAGE GLOBALLY INSPIRED, PLANT-FORWARD CULINARY STRATEGIES

FOCUS ON WHOLE, MINIMALLY PROCESSED FOODS

GROW EVERYDAY OPTIONS, WHILE HONORING SPECIAL OCCASION TRADITIONS | LEAD WITH MENU MESSAGING AROUND FLAVOR | REDUCE PORTIONS, EMPHASIZING CALORIE QUALITY OVER QUANTITY

CELEBRATE CULTURAL DIVERSITY & DISCOVERY | DESIGN HEALTH AND SUSTAINABILITY INTO OPERATIONS AND DINING SPACES

THINK PRODUCE FIRST | MAKE WHOLE, INTACT GRAINS THE NEW NORM | LIMIT POTATOES

MOVE LEGUMES AND NUTS TO THE CENTER OF THE PLATE

CHOOSE HEALTHIER OILS | GO "GOOD FAT," NOT "LOW FAT" | SERVE MORE KINDS OF SEAFOOD, MORE OFTEN

REIMAGINE DAIRY IN A SUPPORTING ROLE | USE POULTRY AND EGGS IN MODERATION | REDUCE ADDED SUGAR | SERVE LESS RED MEAT, LESS OFTEN

CUT THE SALT: RETHINK FLAVOR DEVELOPMENT FROM THE GROUND UP | SUBSTANTIALLY REDUCE SUGARY BEVERAGES, INNOVATE REPLACEMENTS | DRINK HEALTHY: FROM WATER, COFFEE, AND TEA TO (WITH CAVEATS) BEVERAGE ALCOHOL

MENU CONCEPTS AND GENERAL OPERATIONS | FOODS AND INGREDIENTS

DESIGNED BY SARAH DEGEN

The Power of Policy

- Procurement policies - where food comes from, what is served
- Policies that ensure equity - good food purchasing program
- Policies that incentivize local and sustainable businesses



Mayor de Blasio, Chancellor Carranza, and Brooklyn Borough President Adams Announce Citywide Meatless Mondays

March 11, 2019

The Power of Health Professionals

Sustainable Food Systems Education for RDN's and Health Professionals

Front. Nutr., 18 March 2021



Leveraging Online Learning to Promote Systems Thinking for Sustainable Food Systems Training in Dietetics Education

 Marie Spiker^{1,2*},  Amanda Hege^{1,3},  Janice Giddens⁴,  Joanna Cummings⁵,  Jasia Steinmetz⁶,  Angie Tagtow⁷,  Erin Bergquist⁸,  Lauren Burns⁵,  Christina Campbell⁹,  Diane Stadler⁵,  Elizabeth Combs⁹,  Nancy Prange¹⁰,  Aaron Schwartz⁹,  Katie Brown⁴ and  Kevin Sauer¹¹

¹Academy of Nutrition and Dietetics Foundation, Chicago, IL, United States

²Nutritional Sciences Program and Department of Epidemiology, University of Washington School of Public Health, Seattle, WA, United States

³Nutrition and Health Care Management, Appalachian State University, Boone, NC, United States

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⁶School of Health Sciences and Wellness, University of Wisconsin-Stevens Point, Stevens Point, WI, United States

⁷Akta Strategies, LLC, Elkhart, IA, United States

⁸Department of Food Science and Human Nutrition, Iowa State University, Ames, IA, United States

⁹Department of Dietetics and Human Nutrition, University of Kentucky, Lexington, KY, United States

¹⁰School of Health Studies, Northern Illinois University, DeKalb, IL, United States

¹¹Department of Food, Nutrition, Dietetics and Health, Kansas State University, Manhattan, KS, United States

Educating and training a multisectoral food systems workforce is a critical part of developing sustainable, resilient, and healthy food and water systems. This paper shares perspectives from a working group of



MEATLESS MONDAY SM

Source: Barber, K., Swatland, H., Reserason, A., et al. Tackling Climate Change through Livestock - A Global Assessment of Emissions and Mitigation Opportunities. Rome, Food and Agriculture Organization of the United Nations, 2013.

**MEAT,
DAIRY & EGGS
CONTRIBUTE 14.5%
OF ALL
GREENHOUSE
GAS EMISSIONS.**

**LESS MEAT
LESS HEAT**

DO IT FOR **YOUR HEALTH... AND THE PLANET'S HEALTH!**

MEATLESS MONDAY

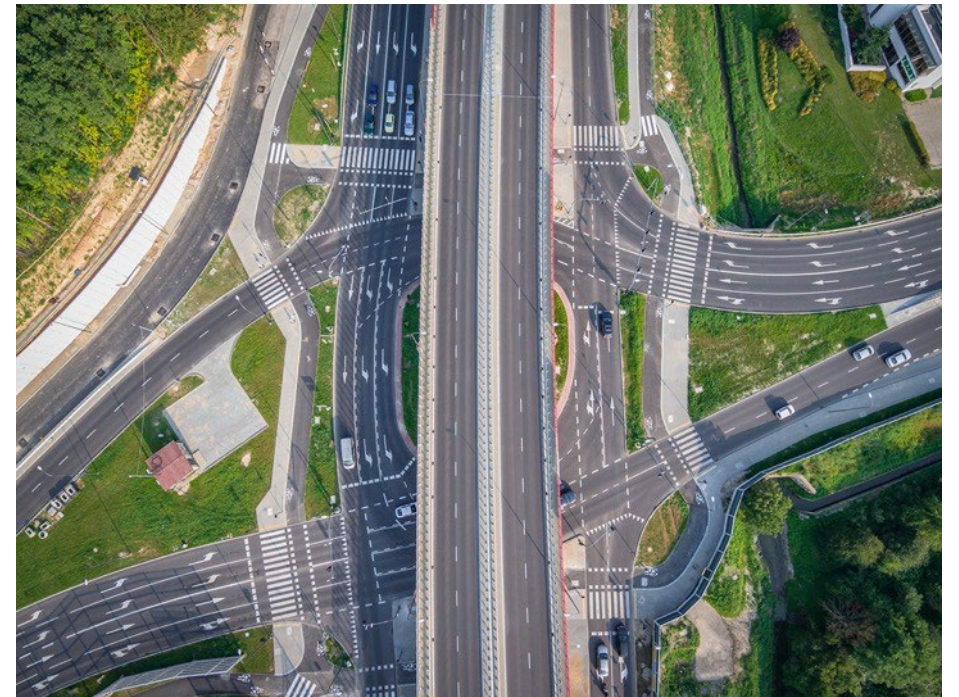
JOHNS HOPKINS
CENTER FOR A LIVABLE FUTURE

The Johns Hopkins Center for a Livable Future is technical advisor to Meatless Monday

www.jhsph.edu/clf/meatless_monday

Meatless Monday as an entry point

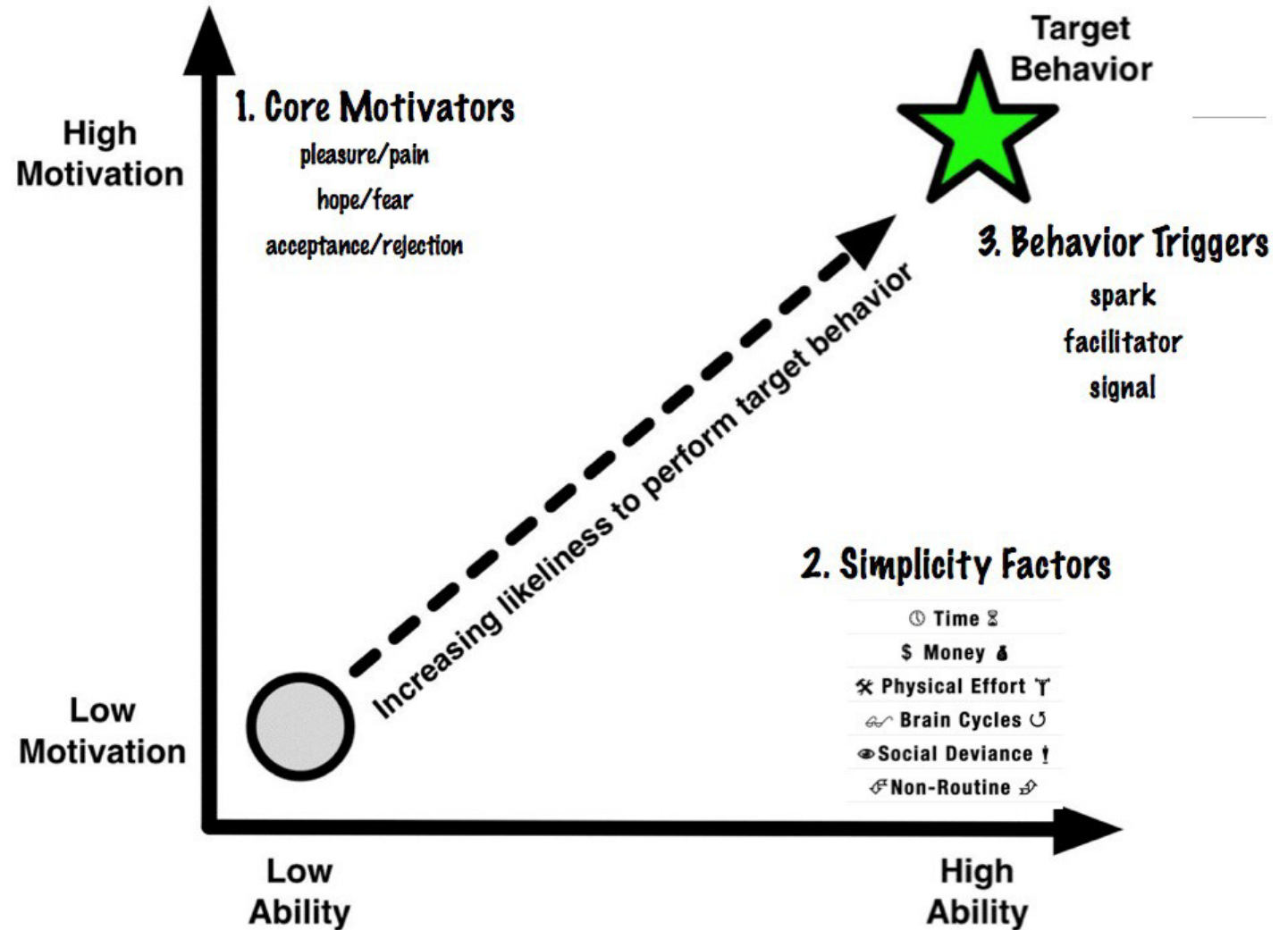
- Not attached to specific agenda
- Attracts those who have not been exposed to specific issues
- Allows for multiple sectors and approaches
- Broad reach and potential impact



Behavior change models can inform approaches



The Buying Funnel, Adapted from: Jansen 2011



• Source: Bfogg Behavior model for persuasive design

A few short conclusions



The environmental, climate and public health impacts of food, from production to consumption call for a significant reduction in meat consumption along with a greater focus on plants.



The reasons people do or don't consume meat, how much, or what kind are complex and differ by individual



There are interventions and influences that have promise for helping people shift toward consuming more plants, and less meat



Understanding the consumer is critical to successful initiatives

The image features two glass jars filled with beans and lentils, set against a burlap background. The top jar contains a mix of white, purple, and speckled beans. The bottom jar is filled with green lentils. The text 'Thank you!' is overlaid on the bottom jar.

Thank you!

The Center for a Livable
Future

www.jhsph.edu/clf

Becky Ramsing

r Ramsin2@jhu.edu

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- We encourage you to provide feedback so we can continue to improve program offerings.
- Complete the evaluation soon after receiving it. It will expire after 3 weeks. Nurses must complete the evaluation before receiving the CE certificate.
- Certificate will be sent to you afterwards

Upcoming Free Webinars for Health Professionals

- **May 24, 2023** Colleen Tewksbury, PhD, MPH, RD, CSOWN, LDN
Watch the Gap: Practical, Comprehensive, and Person-Centered Nutrition Care in Bariatric Surgery
- **June 15, 2023** Wendy Bennett, MD, MPH
Tick Tock Goes the Clock: Timing of Eating and Weight Gain Prevention

Q&A



Moderator:
Lisa Diewald, MS, RDN, LDN
cope@villanova.edu

If you are an RD or RDN and have any questions or concerns about this continuing education activity, you may contact CDR directly at QualityCPE@eatright.org.