



# Intellectual Community Planning Grant

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Food, Climate and Sustainability

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# Presentation Goals

1

Start developing shared language around food systems

2

Summarize how the relationship between climate and food systems has been explored in literature

3

Start thinking about how this diverse group can collaborate

# A Food System Framework



Source: Niles et al. 2017



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# Key Issues in the Food- climate Space



Part 1: Impacts of food on  
the climate



Part 2: Impacts of climate  
change on food



Part 3: Social impacts of  
food-climate interactions



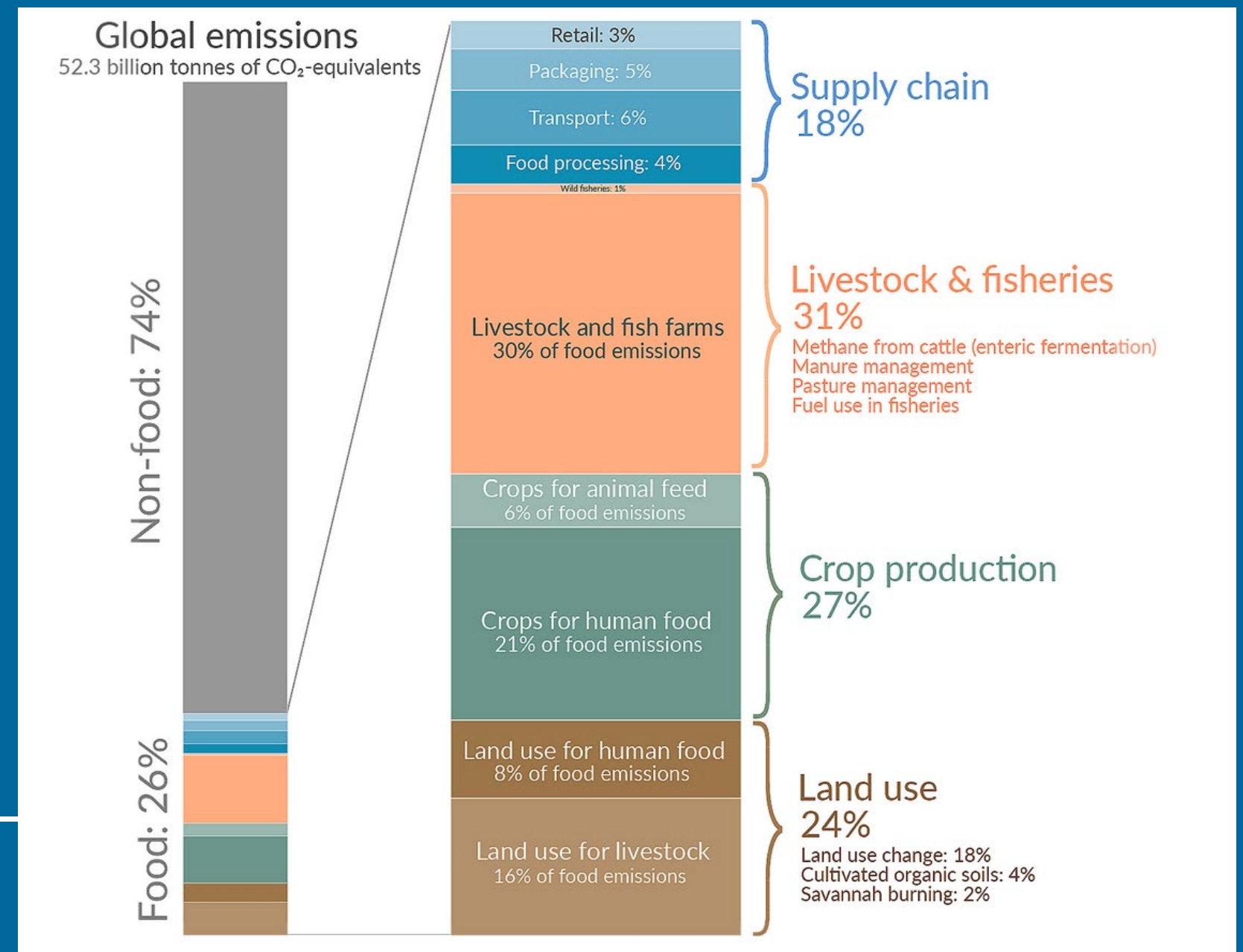
## PART 1

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# Impacts of Food on the Climate

4 key sources of emissions + FW

# Global GHG Emissions from Food Production



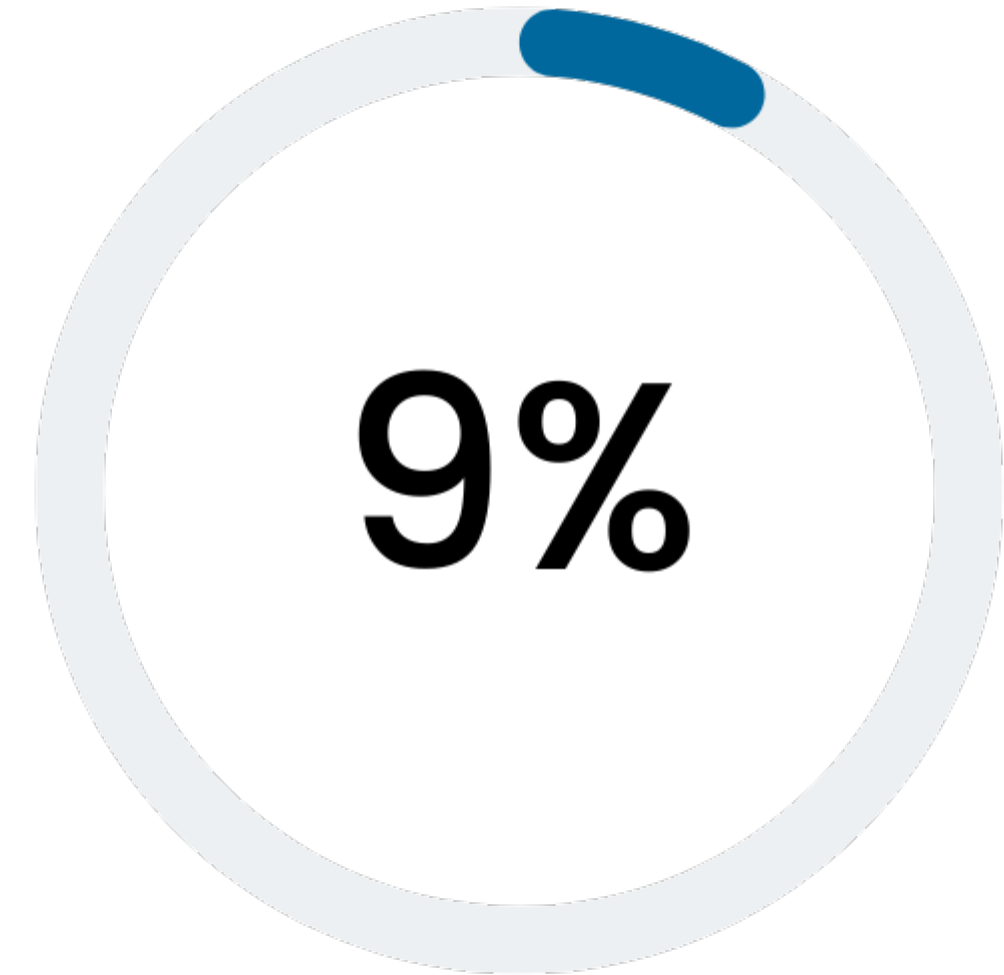
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# Food Waste



**3 in 10**

Food produced is lost  
or wasted



of global GHG emissions  
can be linked to  
lost/wasted food



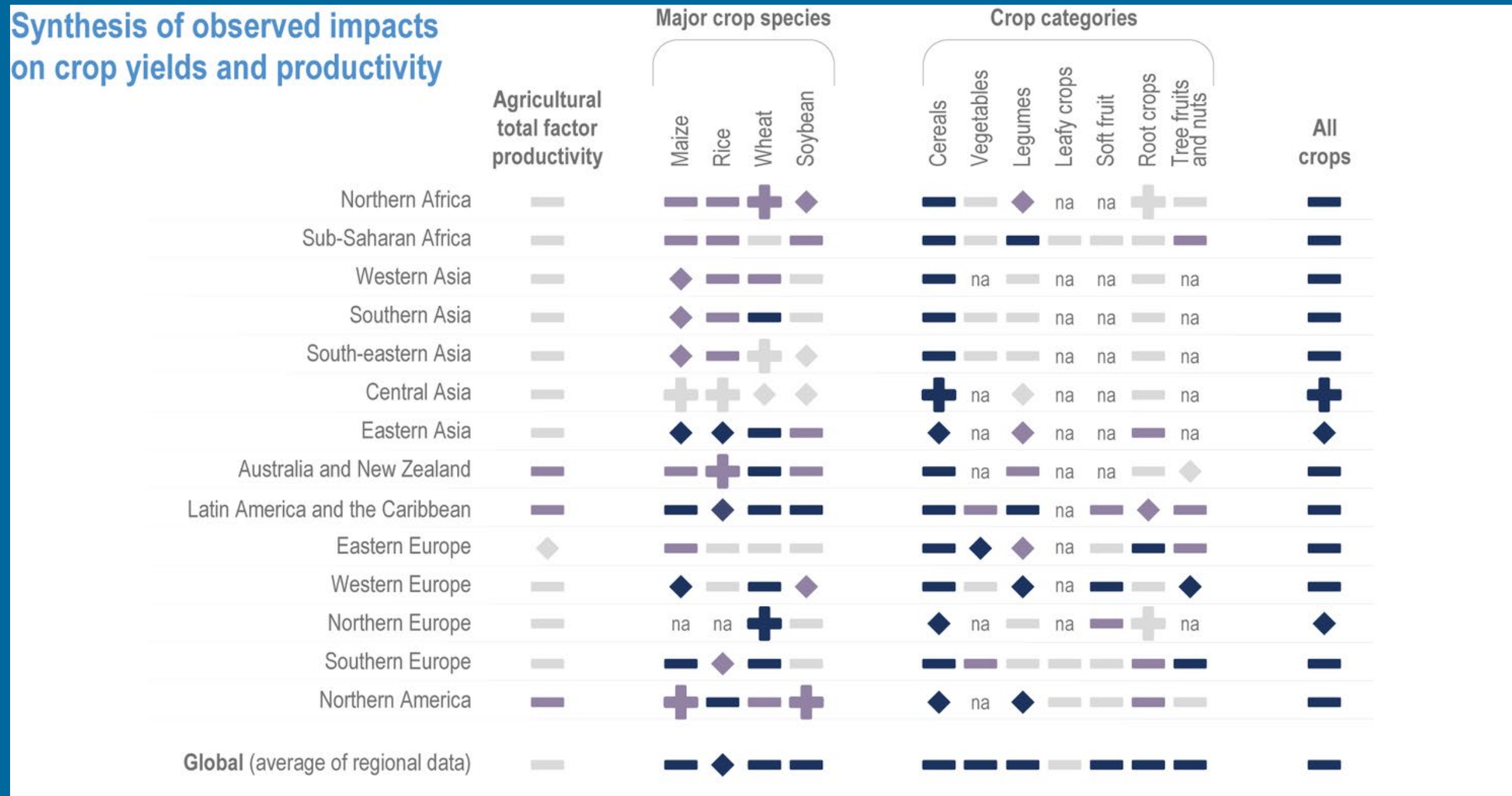
## PART 2

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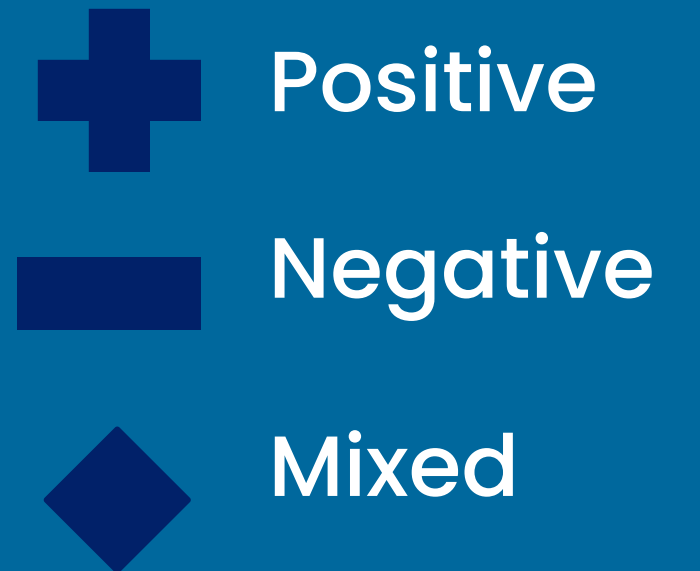
# Impacts of Climate Change on Food

1. Reduction in crop yields
2. Decline in nutritional value

# Observed Reductions in Crop Yields



## Impact level



## Confidence level



# Nutritional Decline in Some Crops

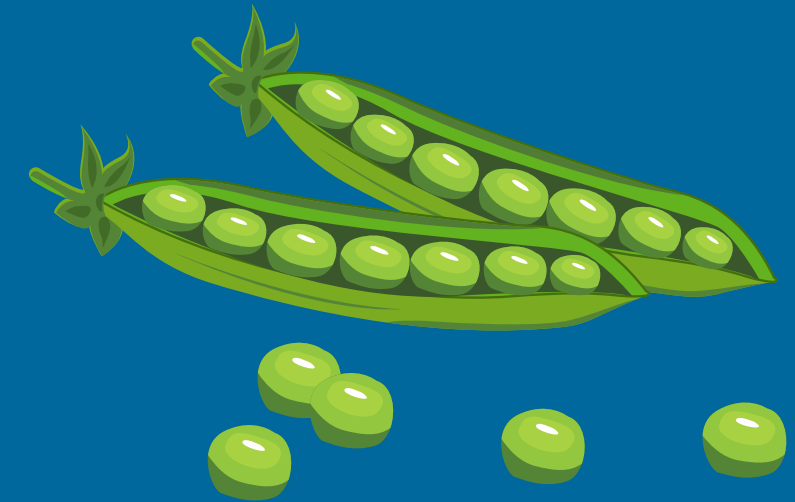
Wheat



Rice



Field Peas

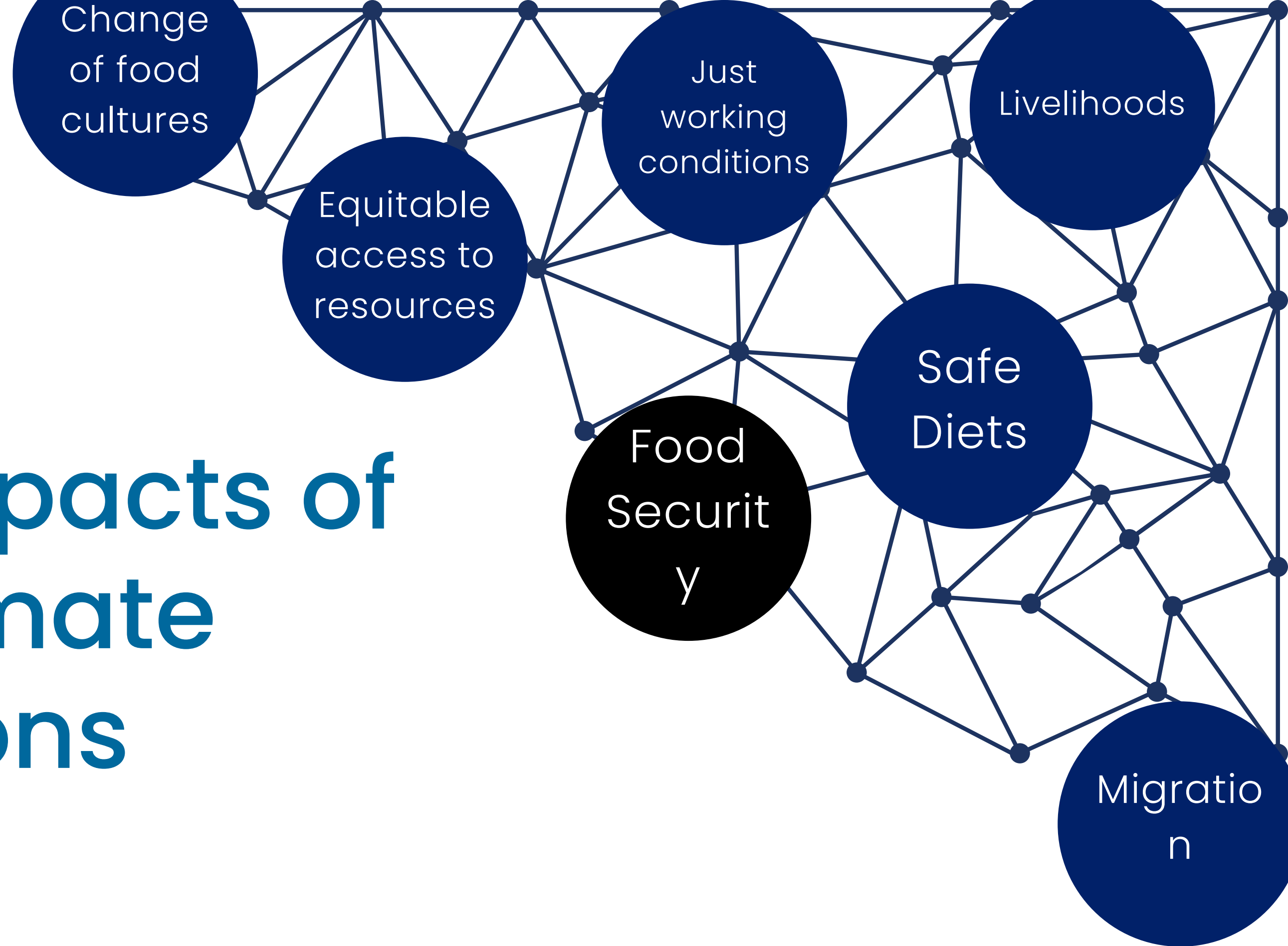


Zin c	-9%	-3%	-7%
Iron	-6%	-5%	-4%
Prote in	-7%	-8%	-2%

PART 3

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# Social Impacts of Food-climate Interactions





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## Food Security: Populations Most at Risk

"About 80% of the global population most at risk from crop failures and hunger from climate change are in Sub-Saharan Africa, South Asia, and Southeast Asia, where farming families are disproportionately poor and vulnerable."

Source: World Bank

# FOOD SYSTEMS TRANSFORMATION



# Discussion Qs



Did today's introductions or discussions spark any new connections for you in terms of work that we could pursue as a group?



Where do you see your work or interests reflected most in the food system framework?



What further angles of the food-climate nexus are important to address?

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# Next Gathering

Develop a research  
agenda for our  
collaboration

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March 22  
1 PM

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Sanford 201

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