



County of San Diego



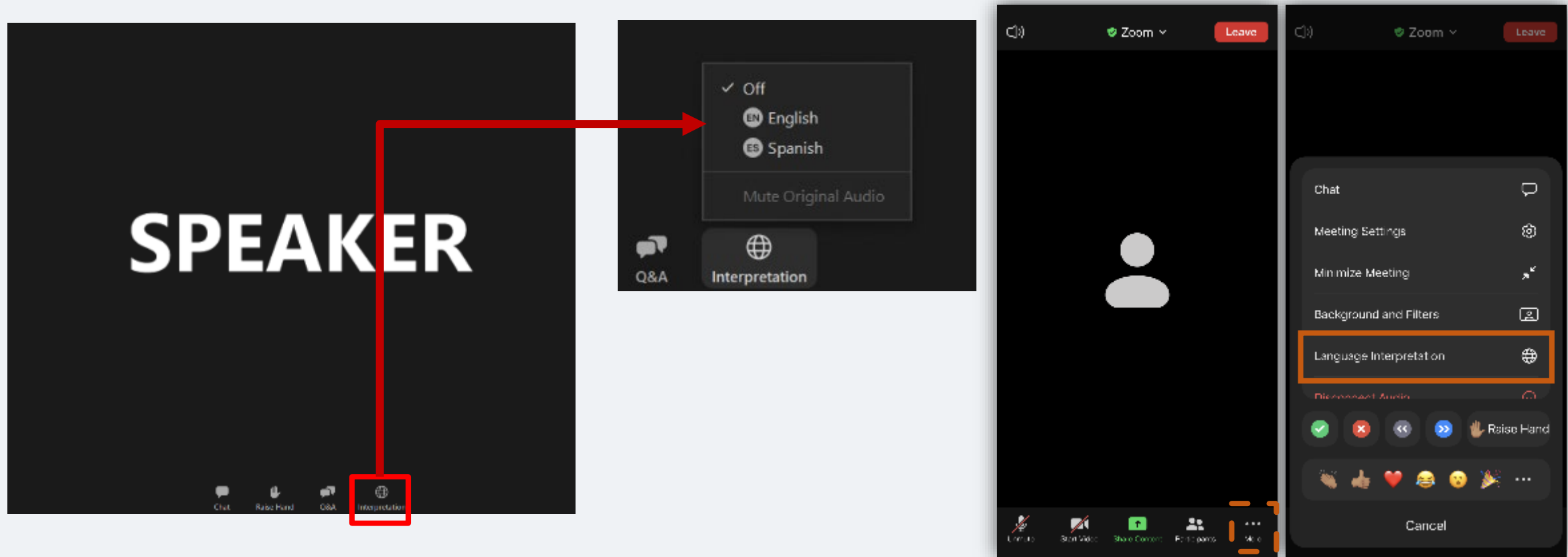
GETTING TO  
**ZERO**

SAN DIEGO COUNTY  
REGIONAL DECARBONIZATION FRAMEWORK

# Food Systems & Circular Economy Working Group

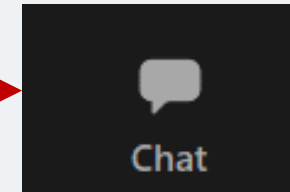
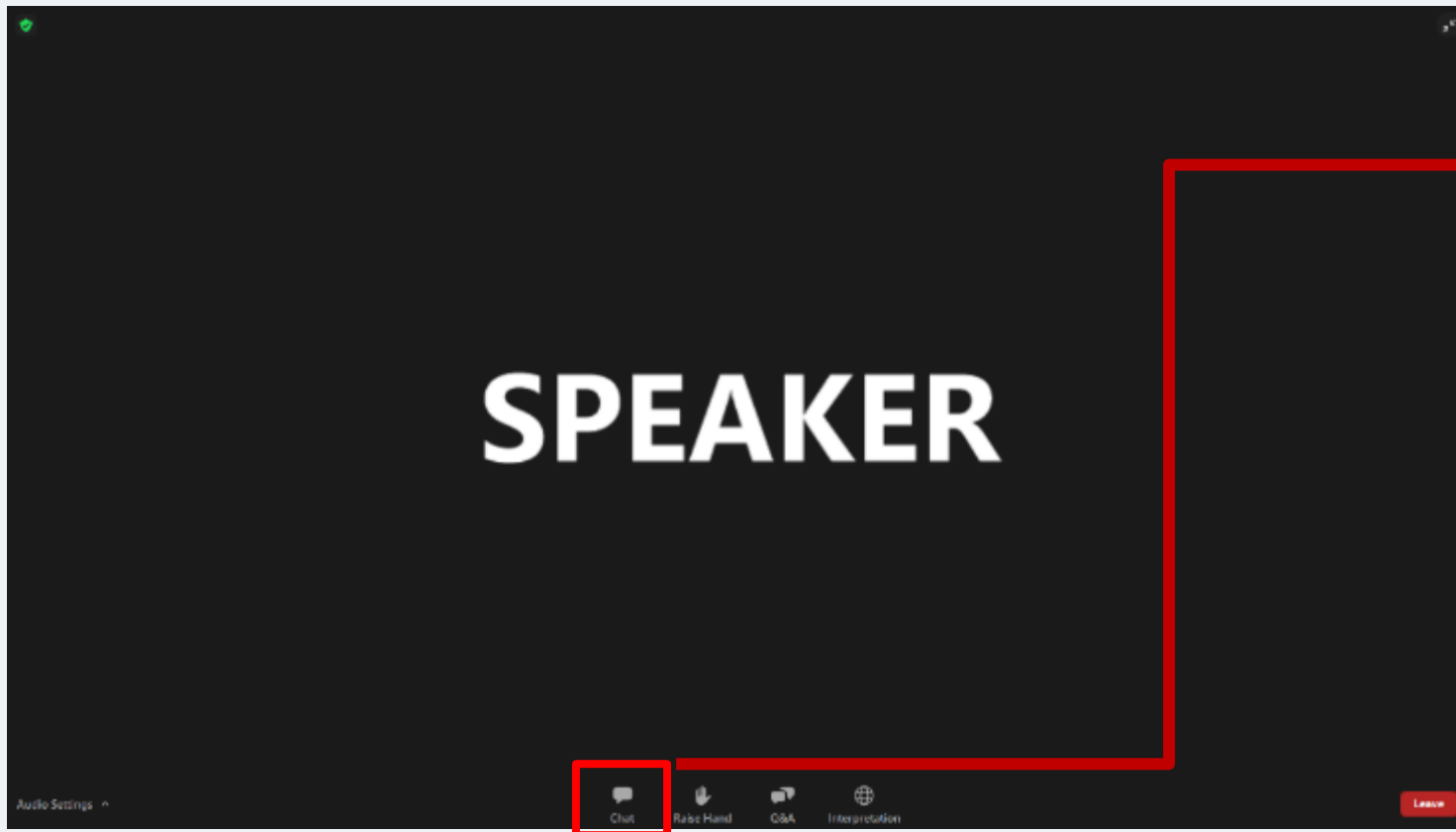
September 22, 2022

# How to use Zoom // *Cómo Usar Zoom*



Please select your language of choice (you must select one option)  
*Debe seleccionar el idioma de su preferencia (Tiene que escoger un idioma)*

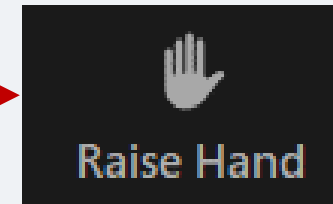
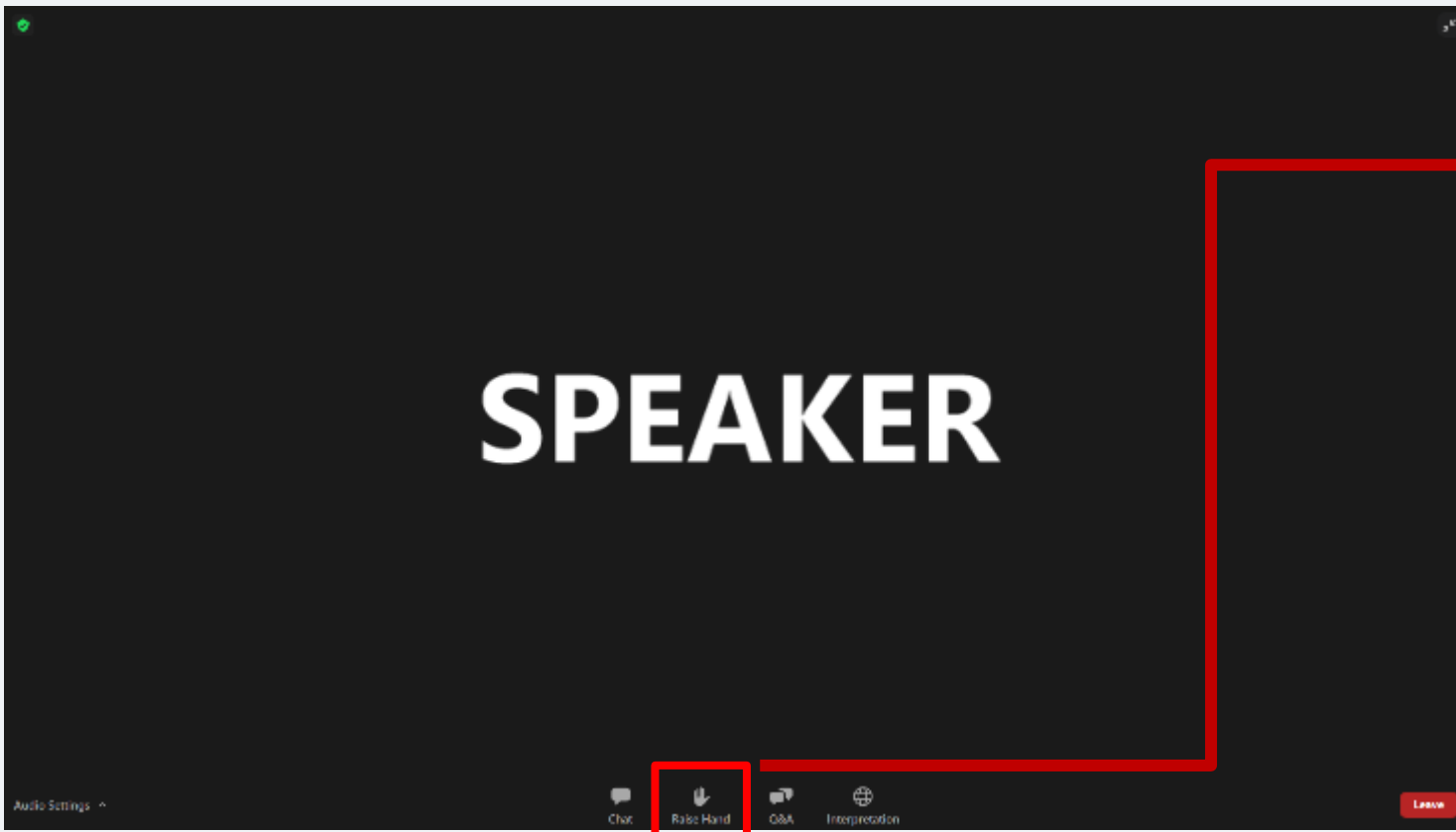
# How to use Zoom // *Cómo Usar Zoom*



Comments and questions can be submitted through the chat window.

*Los comentarios y las preguntas se pueden enviar a través de la ventana de chat.*

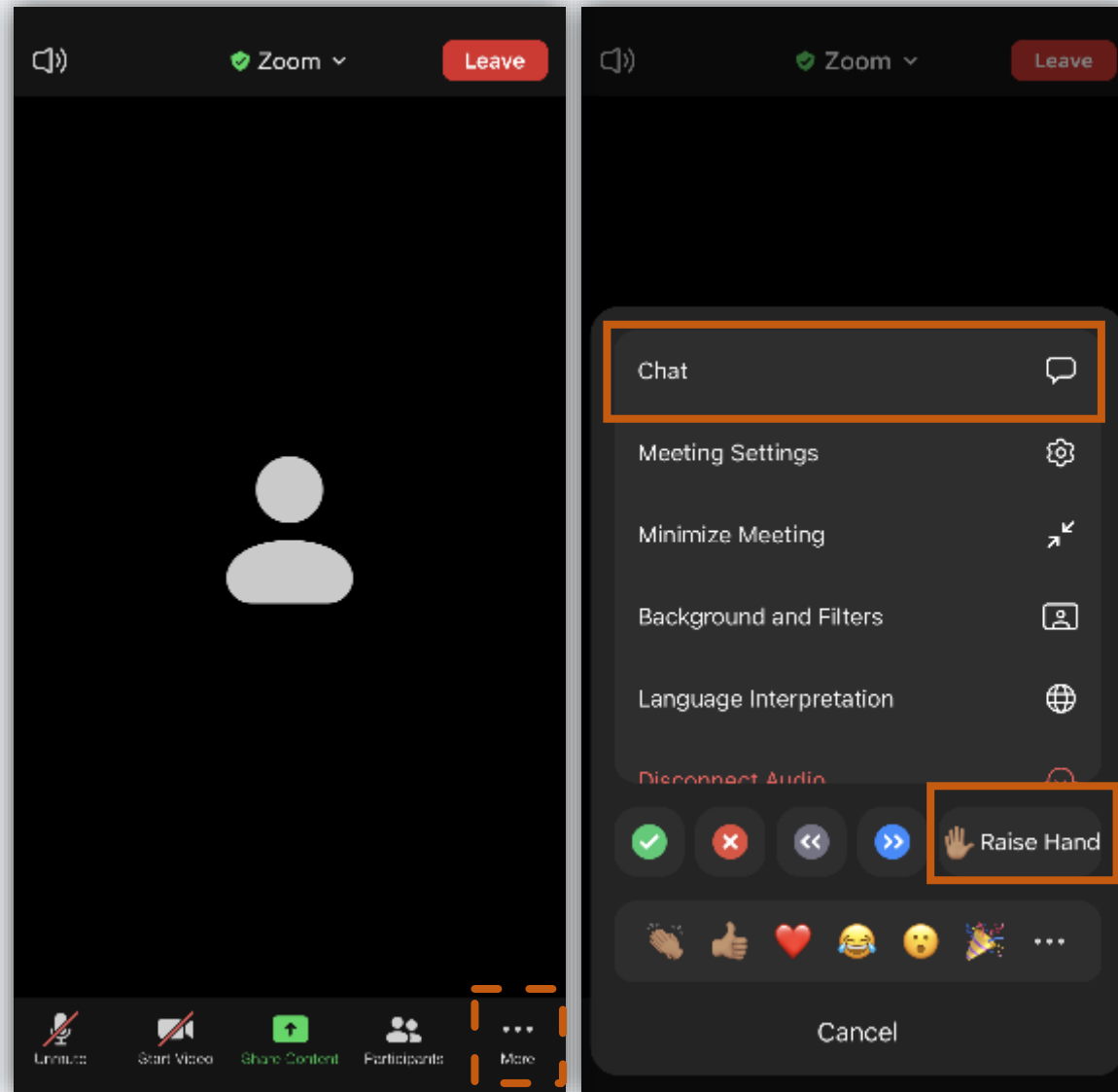
# How to use Zoom // *Cómo Usar Zoom*



During the discussion, if you would like to speak over the audio, please raise your hand (otherwise questions and comments can be submitted through the Chat window)

*Durante el debate, si desea participar de manera oral, por favor, levante la mano (de lo contrario, las preguntas y comentarios pueden presentarse a través de la ventana de Chat)*

# On your Phone // *En su teléfono móvil*







# Role of Working Groups



**BUILDINGS**



**ELECTRICITY**



**FOOD SYSTEMS &  
CIRCULAR ECONOMY**



**LAND USE & NATURAL  
CLIMATE SOLUTIONS**

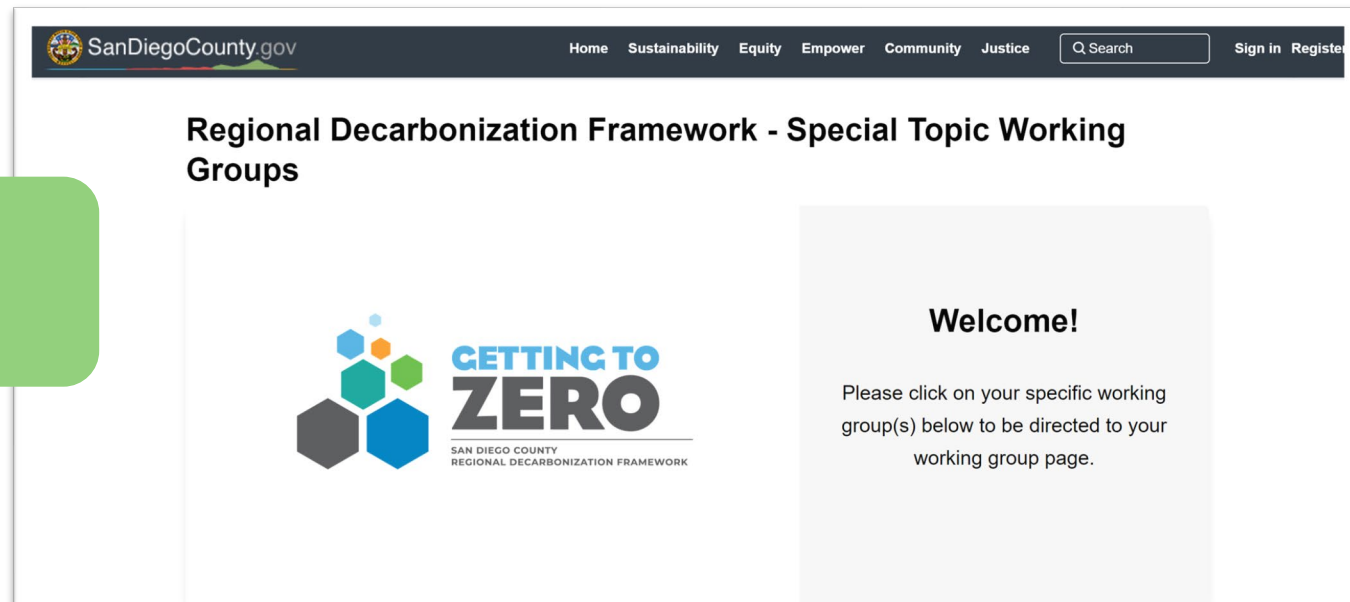


**TRANSPORTATION**

# Engagement Portal

- Special Topic Working Group Engagement Portal:  
<https://engage.sandiegocounty.gov/hub-page/working-groups>
  - Central area where all workshop materials, agendas, recordings, notes etc. will be stored.
  - Can also access the working group portal through the RDF engagement site
- Only have access to working groups that you have shown interest in via interest form

Questions/Concerns email us at:  
[ZeroCarbon@sdcounty.ca.gov](mailto:ZeroCarbon@sdcounty.ca.gov)





# Today's Agenda

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- Introduction to the Implementation Playbook (10 minutes)
- Food Systems & Circular Economy (90 minutes)
  - Regional Emissions (5 minutes)
  - Waste Reduction Introduction (5 minutes) and Discussion (20 minutes)
  - Methane Capture and Use Introduction (5 minutes) and Discussion (20 minutes)
  - Sustainable Agriculture Introduction (5 minutes) and Discussion (20 minutes)
  - Open Discussion on Food Systems & Circular Economy **Not** Discussed (10 minutes)
- Closing (5 minutes)

# Integrated Regional Decarbonization Framework



Technical Report led by  
UC San Diego and USD

Completed  
August 2022



Workforce Development  
Study by Inclusive  
Economics

Completed  
August 2022

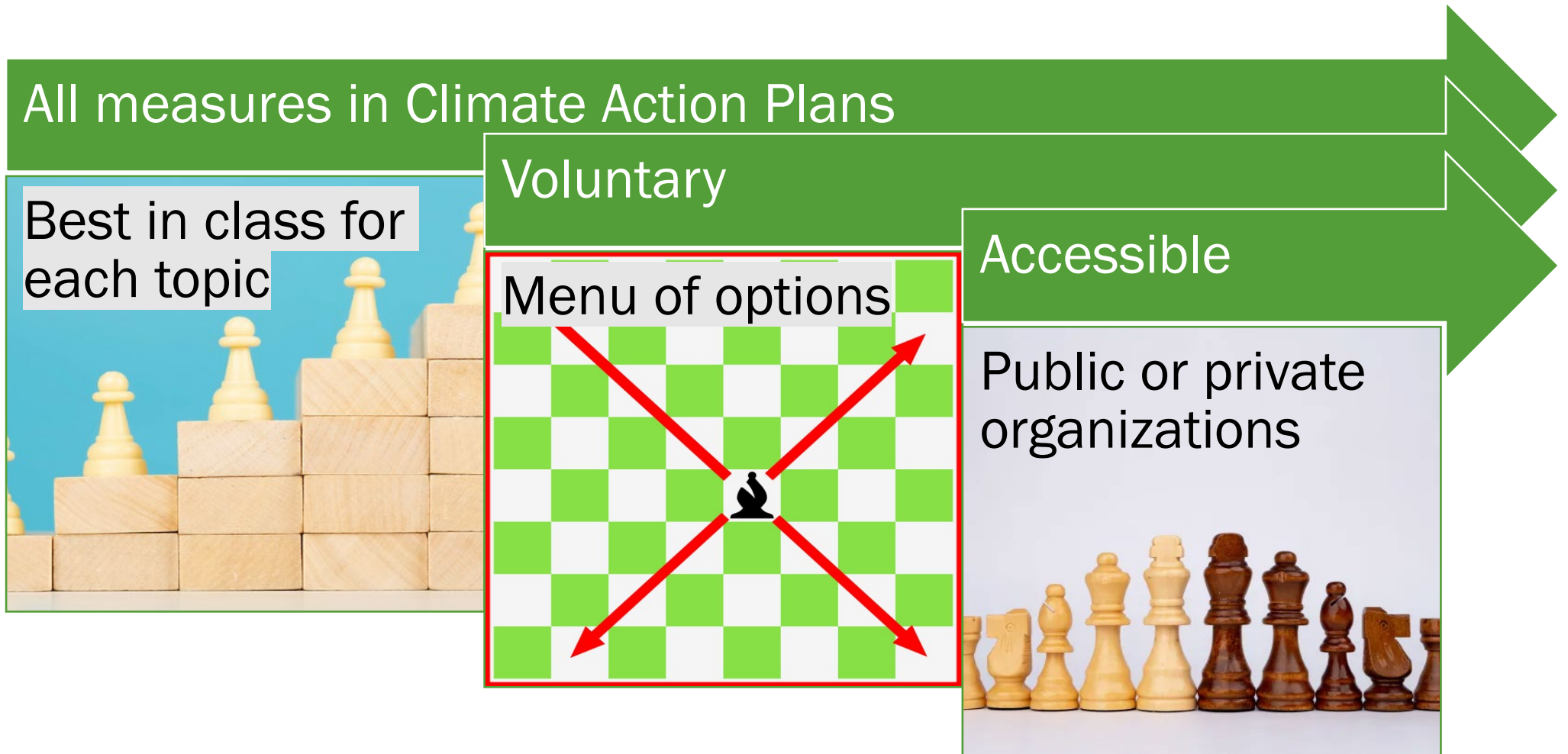


Implementation  
Playbook

Draft December 2022  
Final by Spring 2023

[www.sandiegocounty.gov/RDF](http://www.sandiegocounty.gov/RDF)

# Implementation Playbook



# Implementation Playbook: Level of Approach



Organizational  
Operations



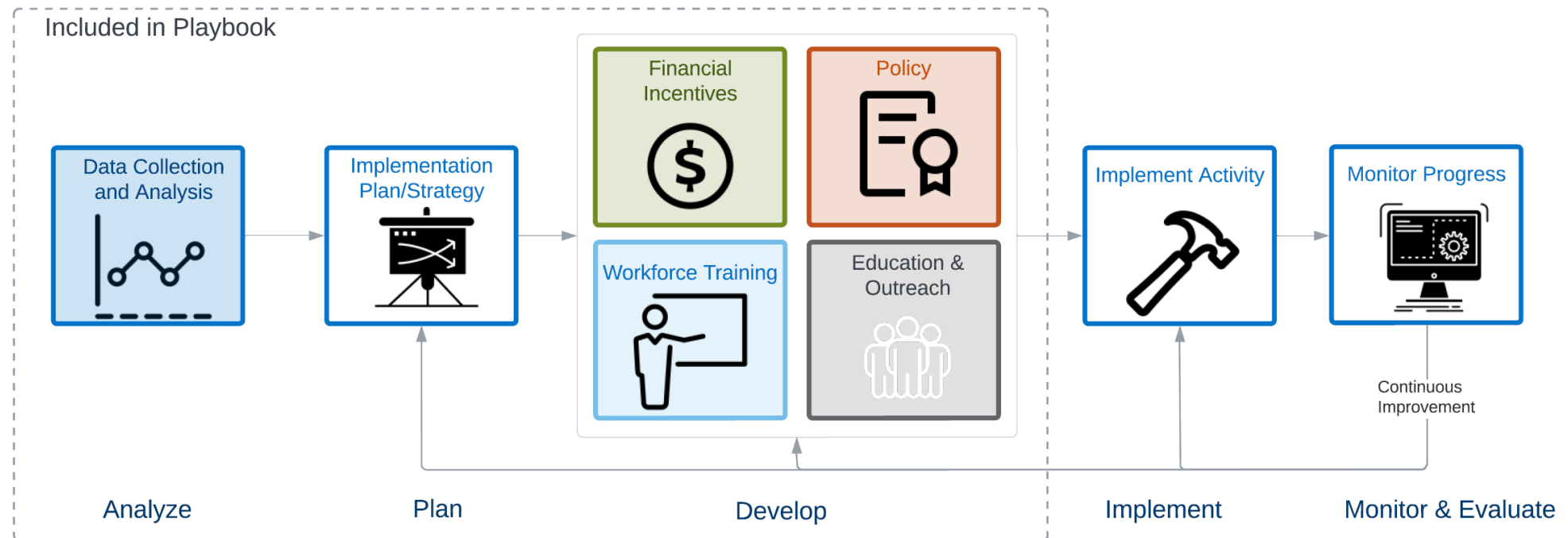
Community



Region

# What we are looking for today:

1. In your experience what has worked or not worked in terms of existing policies?
2. What programs could benefit underserved communities or have adverse impacts?
3. What are solutions that are not in the data base?







**FOOD SYSTEMS &  
CIRCULAR ECONOMY**

# Food Systems & Circular Economy

# Regional GHG Emissions – Main Sources

On-Road  
Transportation



48%

Electricity



20%

Natural Gas



12%

80%

of total GHG emissions  
in the San Diego region

# Regional GHG Emissions – Other Sources

Industrial Gases



8%

Other Fuels  
(e.g., wood, propane)



4%

Off-Road  
Transportation



4%

Solid Waste



2%

Water, Aviation, Rail, Wastewater,  
Agriculture, Marine Vessels, Fertilizers

1% or less each

# What is a Circular Economy?

## LINEAR ECONOMY

Materials in a **Linear Economy** create waste after use.



VS.

## CIRCULAR ECONOMY

Materials in a **Circular Economy** are collected and reused after each use.

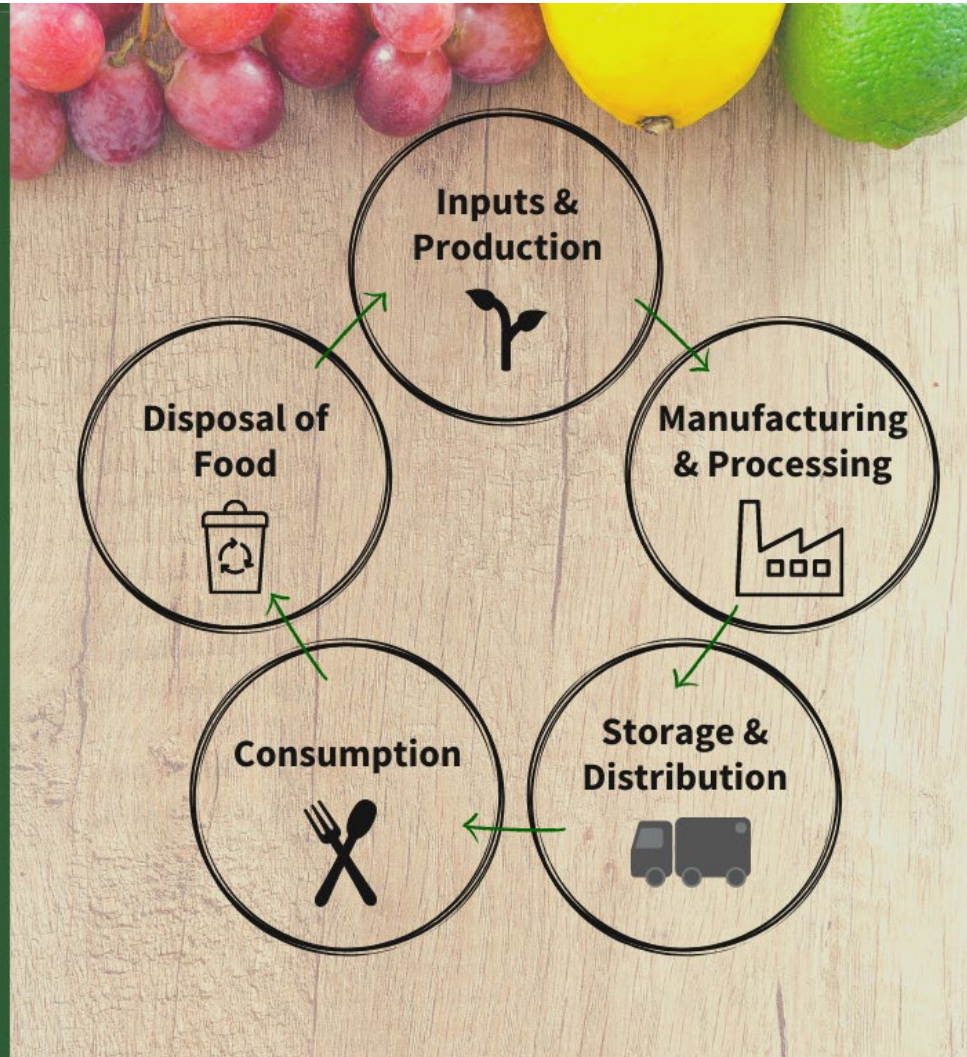




# How can a food system be a solution to GHG emissions?

## COMPONENTS OF THE FOOD SYSTEM

All of these components are interconnected and impact the social, environmental, and economic conditions of a population.





# Food Systems & Circular Economy – GHG Reductions



## Waste Reduction

- Diversion and Recycling



## Methane Capture and Use

- Landfills
- Wastewater treatment plants
- Livestock operations



## Sustainable Agriculture

- Agriculture easements
- Carbon-farming practices
- Urban gardens

# Waste Reduction– Laws and Programs

- State Law/Regulation
  - SB 1383
    - Requires 75% reduction of organic waste disposal by 2025
    - Requires at least 20% of current disposed edible food be recovered
  - AB 1826
    - Requires certain business to recycle organic waste



# Waste Reduction– Other Key Considerations

Diverted organic waste can be used in several ways

- Compost
- Converted to biogas
- Create a higher value products
  - Grains from beer making used to create other products
  - Grains from beer making used to feed livestock

Capacity to process organic waste is lagging in the San Diego region





# Waste Reduction– Example Actions



## Organizational Operations

- Adopt a zero waste plan and policy for facilities and operations
- Purchase products with recycled content or that are compostable



## Community

- Adopt a zero waste plan and policy for an entire city or county
- Adopt policies to require construction waste recycling



## Region

- Develop regional capacity to accommodate organic waste flows
- Develop programs to support diversion of edible food

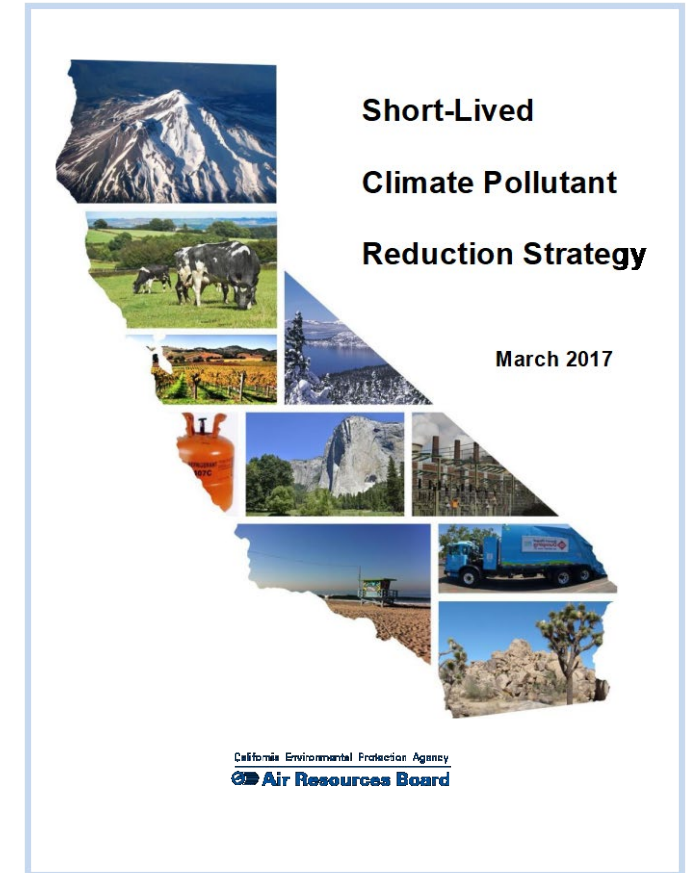
# Waste Reduction Discussion

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# Methane Capture and Use- Laws and Programs

- State Law/Regulations
  - CARB Landfill Methane Control Measure (LMCM)
  - CARB Short-Lived Climate Pollutant Strategy
- SB 1383
  - Permits CARB to regulate livestock emissions after 1-1-24



# Methane Capture and Use– Other Key Considerations

Reducing methane can have immediate impact on climate

- Higher climate warming impact than carbon dioxide

High levels of capture at landfills and Wastewater Treatment Plant

Few dairies in the San Diego region

Waste already in landfill will continue to produce methane

# Methane Capture and Use– Example Actions



## Organizational Operations

- Landfill or Wastewater Treatment Plant owners adopt target to capture 100% of methane



## Community

- Local jurisdictions can advocate for increased methane capture at landfills and Wastewater Treatment Plant



## Region

- Conduct analysis of methane emissions in the San Diego region
- Develop a regional methane reduction strategy

# Methane Capture and Use Discussion

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# Sustainable Agriculture – Laws and Programs

- State Law
  - SB 27
    - Natural and Working Lands Climate Smart Strategy
  - Executive Order N-82-20
    - Conserve 30% of land and coastal waterways by 2030 (30x30)
- Healthy Soils Program
  - Financial incentives to implement strategies to remove and store carbon
- Farm Bill (2023)





# Sustainable Agriculture– Other Key Considerations

San Diego region's farming community is characterized by hundreds of small farms – small proportion of regional emissions

## Food system

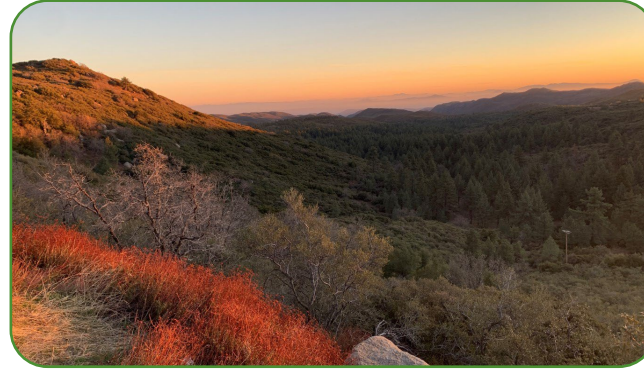
- Food consumed in San Diego region was produced elsewhere and transported
- Energy required at all points in supply chain
- Locally-produced food can require less energy and have lower emissions

# Sustainable Agriculture– Example Actions



## Organizational Operations

- Breweries provide spent grain for animal feed
- Preference to purchase locally-produced food



## Community

- Support urban gardens
- Develop programs to encourage preservation of agricultural lands



## Region

- Analyze potential and opportunities for carbon farming
- Develop programs to promote best practices in carbon farming

# Sustainable Agriculture Discussion

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# Open Discussion – Food Systems & Circular Economy

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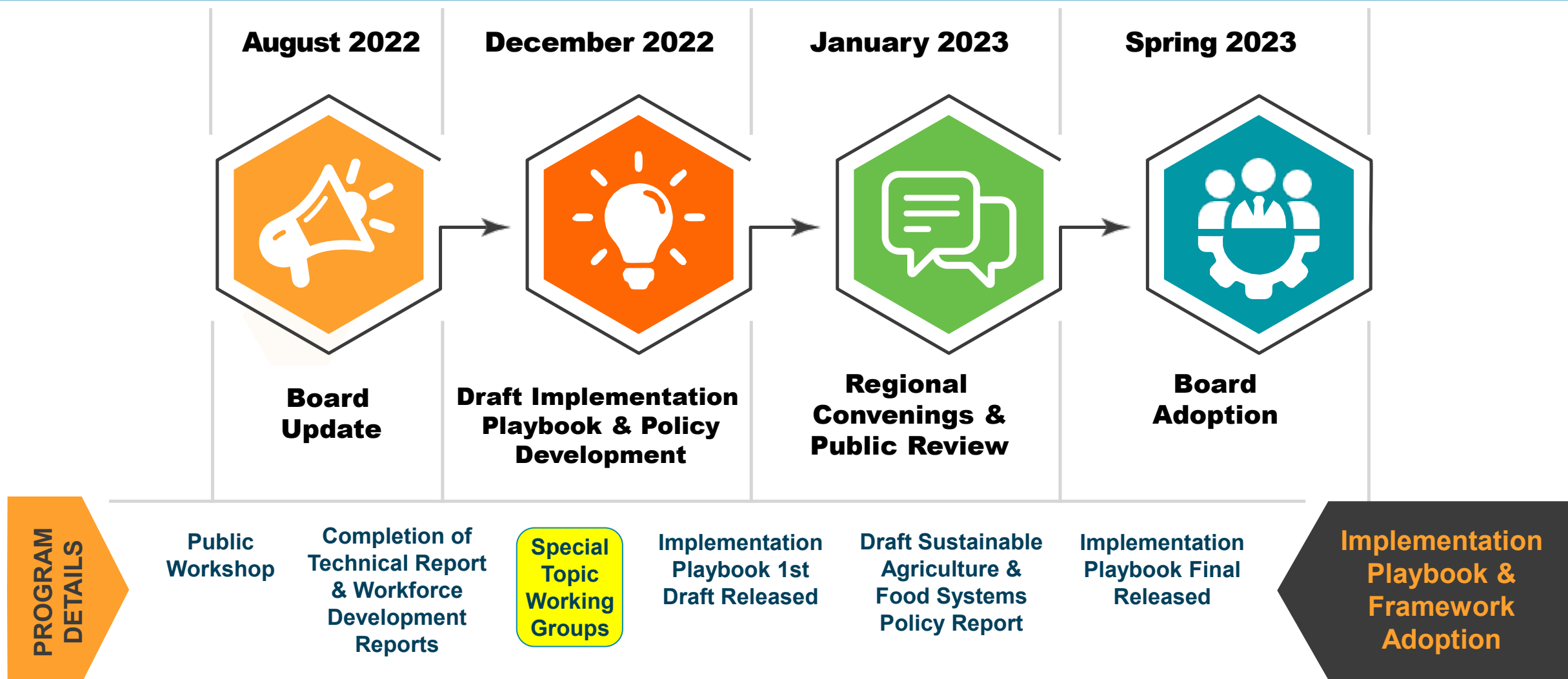
# Food Systems & Circular Economy Working Group

September 22, 2022

# Additional Slides for Q + A

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# Timeline



# Public Outreach: Fall 2022 - Spring 2023

## Special Topic Working Groups



Sept – Nov 2022

Electricity  
Buildings  
Transportation  
Land Use & Natural  
Solutions  
Food Systems & Circular  
Economy

## Regional Social Equity Working Group



Sept 2022 and  
Onwards

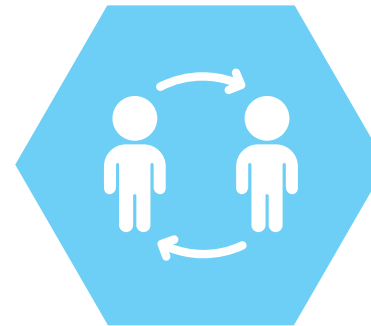
Social Equity Guidance

## Public Workshops



Oct 2022  
Dec 2022  
Feb 2023

## Regional Convenings by Supervisorial District



Jan – Feb 2023

5 supervisorial  
districts

## Technical Working Group



Ongoing

Experts in relevant  
fields as-needed



# Implementation Playbook: Examples



## Buildings

- Better use of energy in existing buildings



## Electricity

- Educate residents & businesses about 100% renewable energy options



## Food Systems & Circular Economy

- Bulk purchase of food
- Waste diversion from landfills



## Land Use & Natural Climate Solutions

- Green streets



## Transportation

- Retire polluting vehicles

# Regional Actions: Examples



Solar electricity for  
low-income renters



Model building code  
for electrification



Regional program for  
suitable tree planting  
locations