



# CLIMATE CHOICE

## Development of Climate Choice (Lunch) -concept for restaurants based on carbon footprinting

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MTT Agrifood Research Finland

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# Starting point



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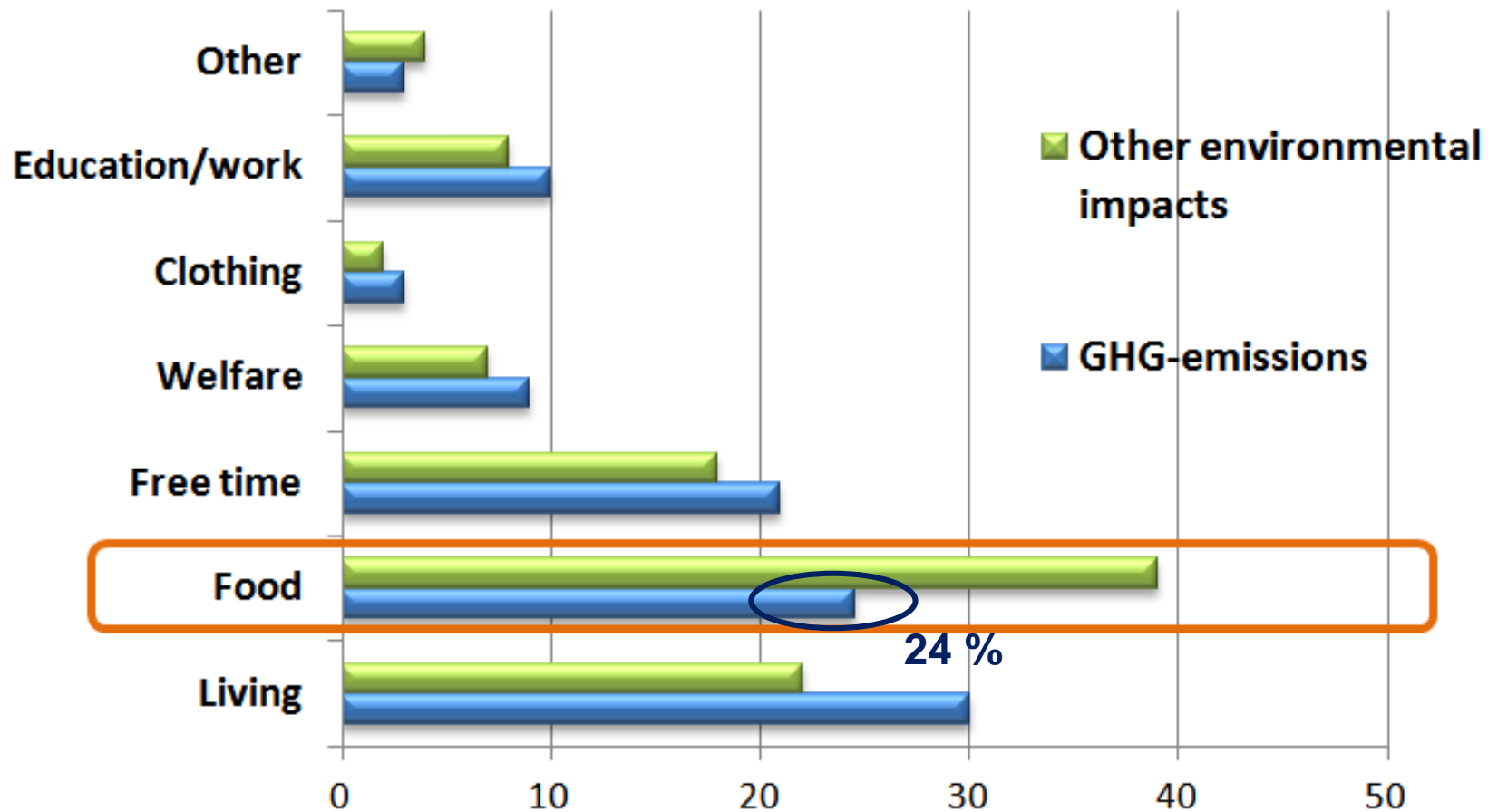
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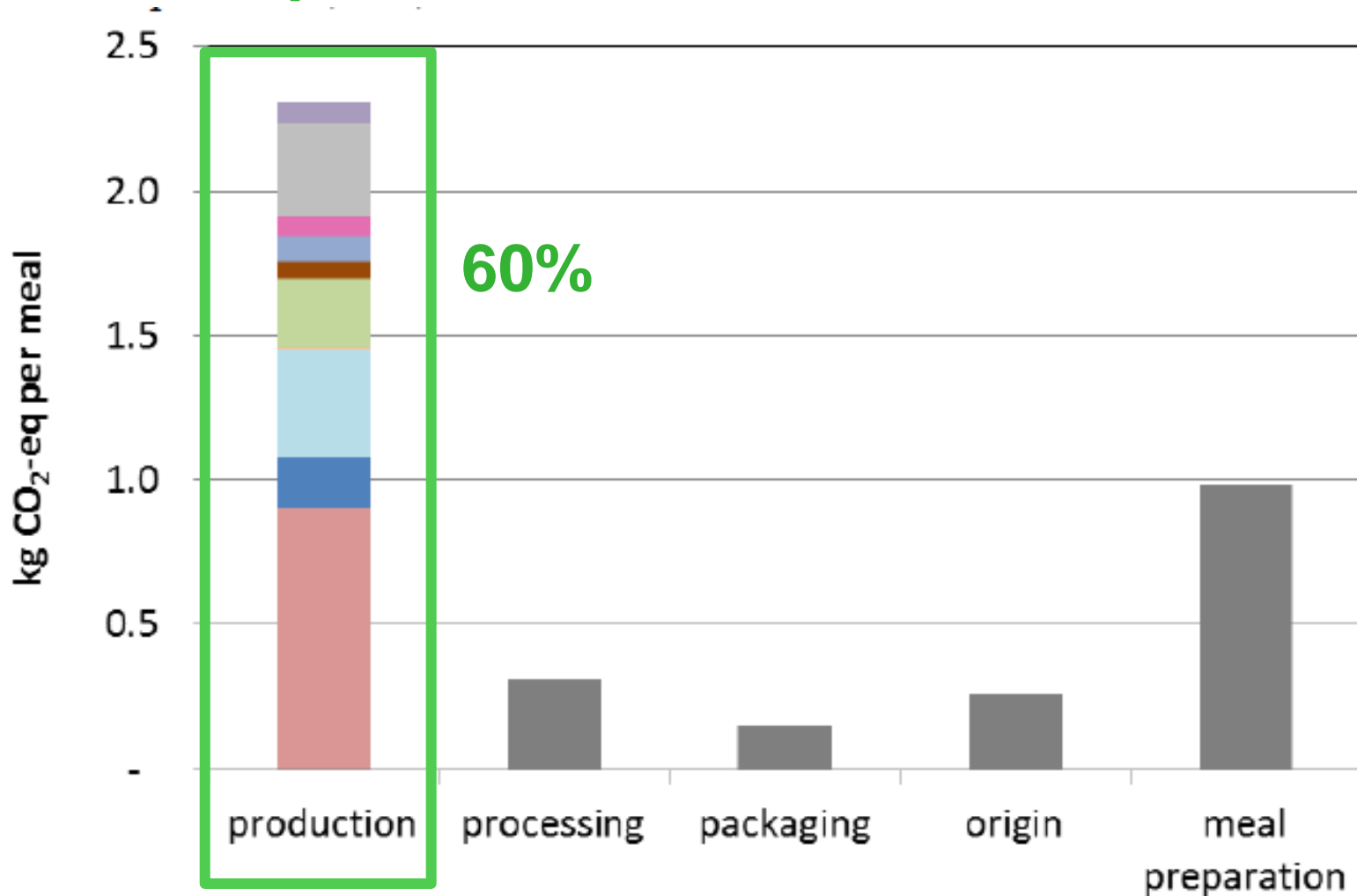


# Climate Impacts of food in Finland: private consumption



Seppälä et al. 2009

# Climate impacts of canteen meals



Jungbluth, N. et al LCA Food 2014

# Why do we need Climate Choice?

- Climate impacts of food are mostly coming from primary production
  - Significant emission reductions are not possible for example with technological solutions

➤ Climate impacts could be efficiently reduced by changing consumption patterns

- Consumers and restaurants have not received enough information on climate- and environmental impacts

➤ Climate Choice –concept give incentive for restaurants to improve their meals and show consumers what climate-friendly meal choices are



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# Development of Climate Choice



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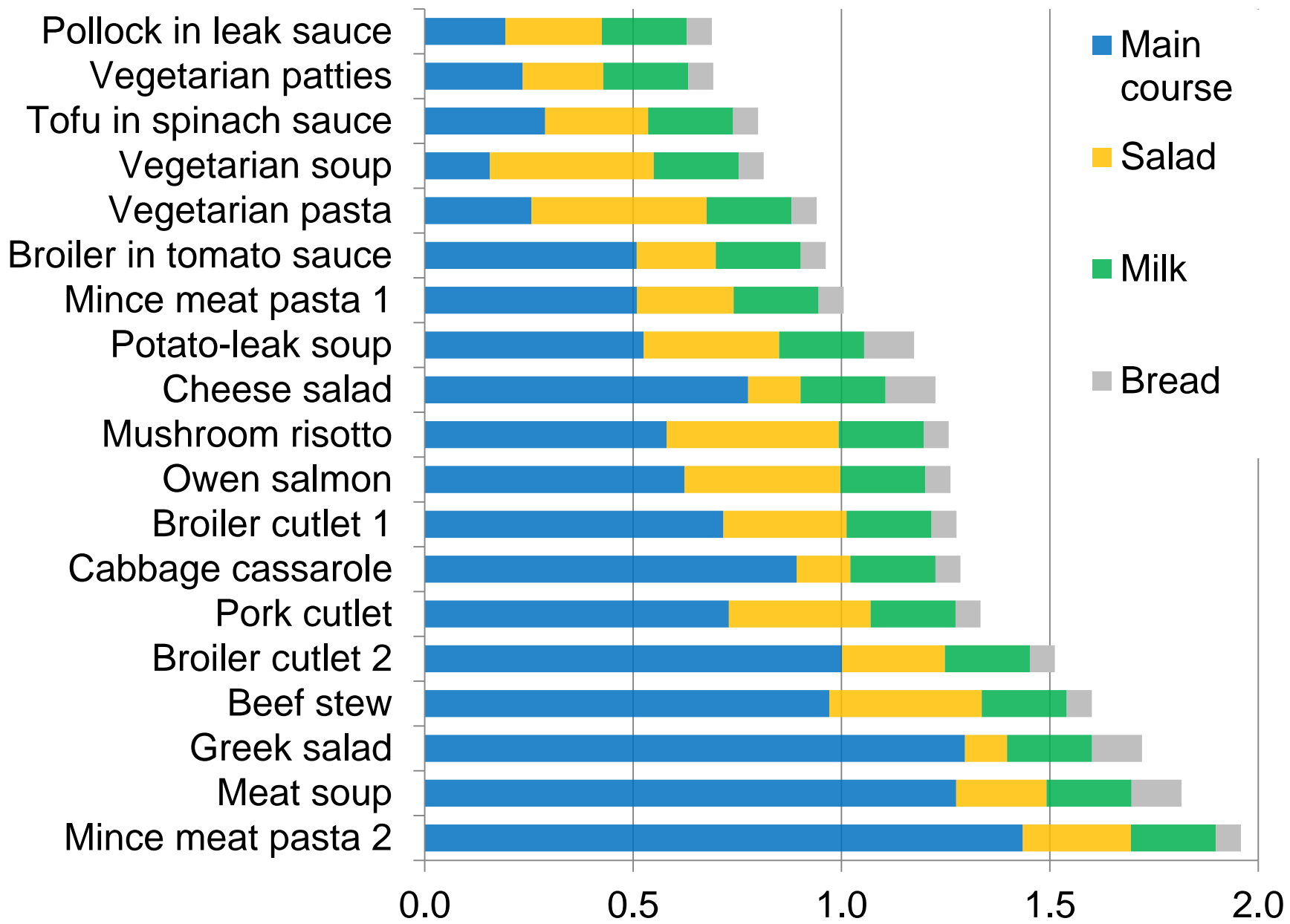
# Development of Climate Choice concept

- 1. Climate impact assessment of lunches**
2. Review on other possible sustainability criteria
  - First proposal of criteria for stakeholder workshop
3. Workshop
  - **Development of criteria for pilot week**
- 4. Pilot week and consumer studies**
  - **Final criteria**

# Assessment of climate impacts of meals

- By MTT's previous studies and literature data
- 81 meals were assessed for definition of maximum greenhouse-gas emission of a Climate Choice meal
  - Impact of production of ingredients





# Criteria for Climate Choice pilot week

## 1. Climate

- Climate Choice meal: at least 15% less GHGE than average meals
- Better Climate Choice meal: at least 30% less GHGE than average meals



## 2. Nutrition

- National public catering nutritional recommendations by Ministry of Social Affairs and Health (max limits for salt and fats, min for fibers)

## 3. Fish stocks

- No fish species from the red list of WWF's Fish Guide

# Pilot week

- 1-2 main dish options every day along with other options
- Salad buffet was climate friendly all week
- In 21 student lunch canteens, 3 office canteens and one 'normal' restaurant
- References to MTT & WWF were used
- Communication methods:
  - Logos at the menus and at the buffet
  - Posters at the entrance
  - Cards at the table





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# Few conclusions from consumer studies



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# Conclusions from consumer studies 1/2

- To understand first impressions of consumers
- Five restaurants, 33 interviews, 307 questionnaires
- Link between climate impacts and lunch even weaker than between climate impacts and food choices in grocery stores
- Challenging to communicate climate impacts at lunch
  - Routines, hunger and hurry
- One week pilot week too short to inform consumers
  - Only around half had noticed new information – time and repetitions are needed
  - Very few had noticed that there were two levels of Climate Choices

## Conclusions from consumer studies 2/2

- Meals need to be attractive: taste and quality need to be equal
- Response was positive
- Information is welcome and gives to possibility to influence
- Explicit explanations why a certain meal is a Climate Choice



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# Climate Choice -concept



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# Climate Choice -concept

- Climate Choice meals should primarily be determined by assessing the climate impacts of the production of ingredients
  - The climate impact of Climate Choice –meal needs to be at least 25 % less than average meals' assessed in the project (0,96 kgCO<sub>2</sub>-eq.)
- As the assessment is still impossible for restaurants, also criteria based on ingredients which have the lowest carbon footprint was developed
- As soon as possible, the concept should be based on climate impact assessment
  - More reliability, scientifically sound and allows the use of wider range of ingredients



# Criteria based on ingredients with the lowest climate impact

- **Allowed ingredients in main dishes and salads:**
  - Plant based ingredients
    - Except rice
    - Greenhouse vegetables only
      - In June-August
      - From Mediterranean or from other countries where grown without significant heating or lightning year round or
      - From greenhouses using renewable energy year round
  - Fat-free milk and sour milk
  - Fishes with lowest climate impact (perch, pike, mackerel, pollock, herring, roach – taking into account WWF's Fish Guide)
- **Allowed ingredients in side dishes:**
  - Potatoes and other root vegetables
  - Barley, oat, rye and wheat
  - Vegetable fats and oils
- Use of spices allowed in all dishes

# Climate Choice -concept

- Finnish nutritional criteria for public catering
- No fish species from WWF's Fish Guides' red list
- Concept needs to be used constantly in restaurants to reach an impact
- Until the concept has become some what familiar to consumers, one level criteria and one logo shall be used

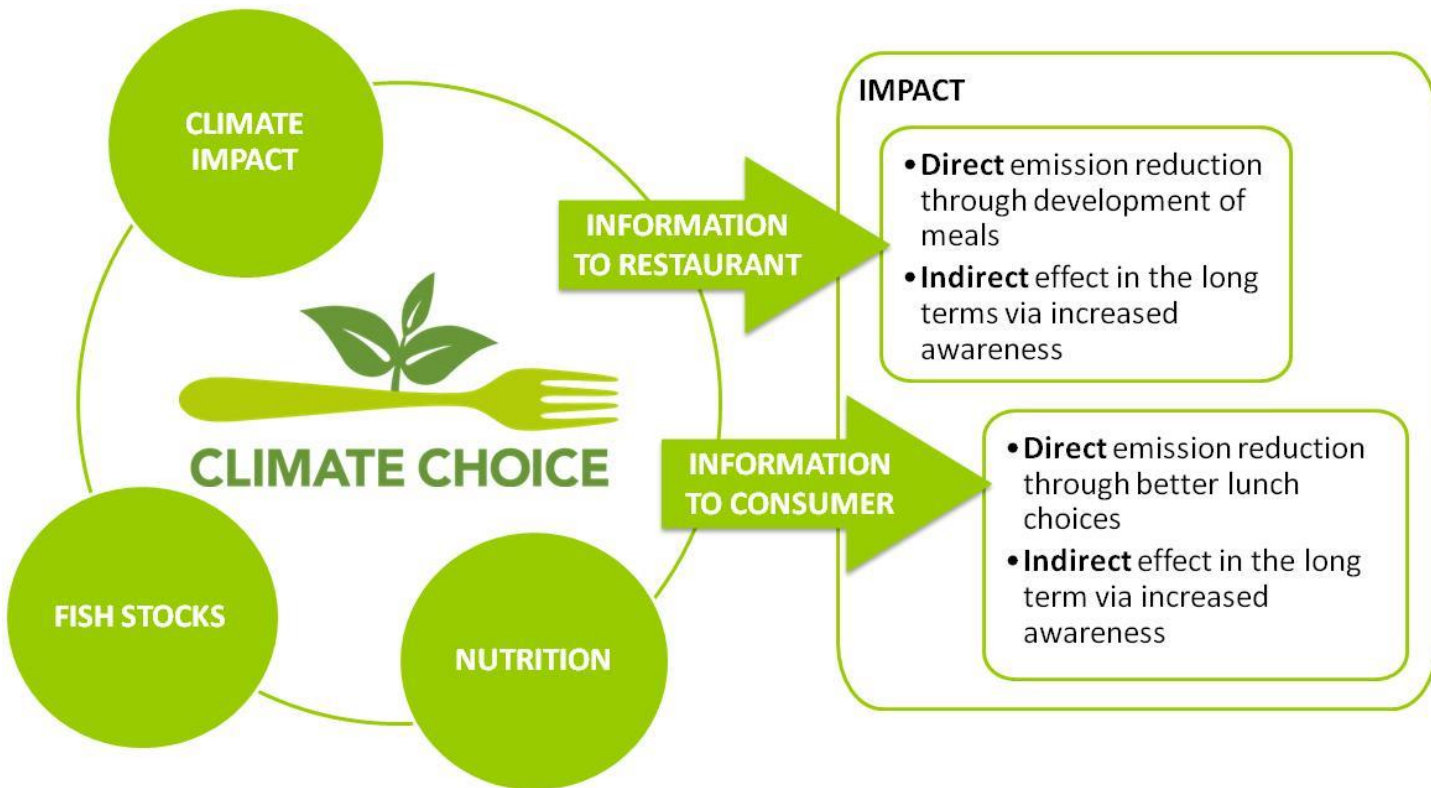
# Future

- Need to develop enough comparable and reliable database
  - Easy and efficient meal design for restaurants – ensuring GHG-emission reductions
  - Best way to motivate restaurants
- Inclusion of energy consumption and food waste of restaurants
- Inclusion of other dimensions of sustainability should be studied



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# Thank you for your attention!



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**Thank you for your  
attention!**



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