

# Introduction to Urban Food Systems

September 20<sup>th</sup>, 2023

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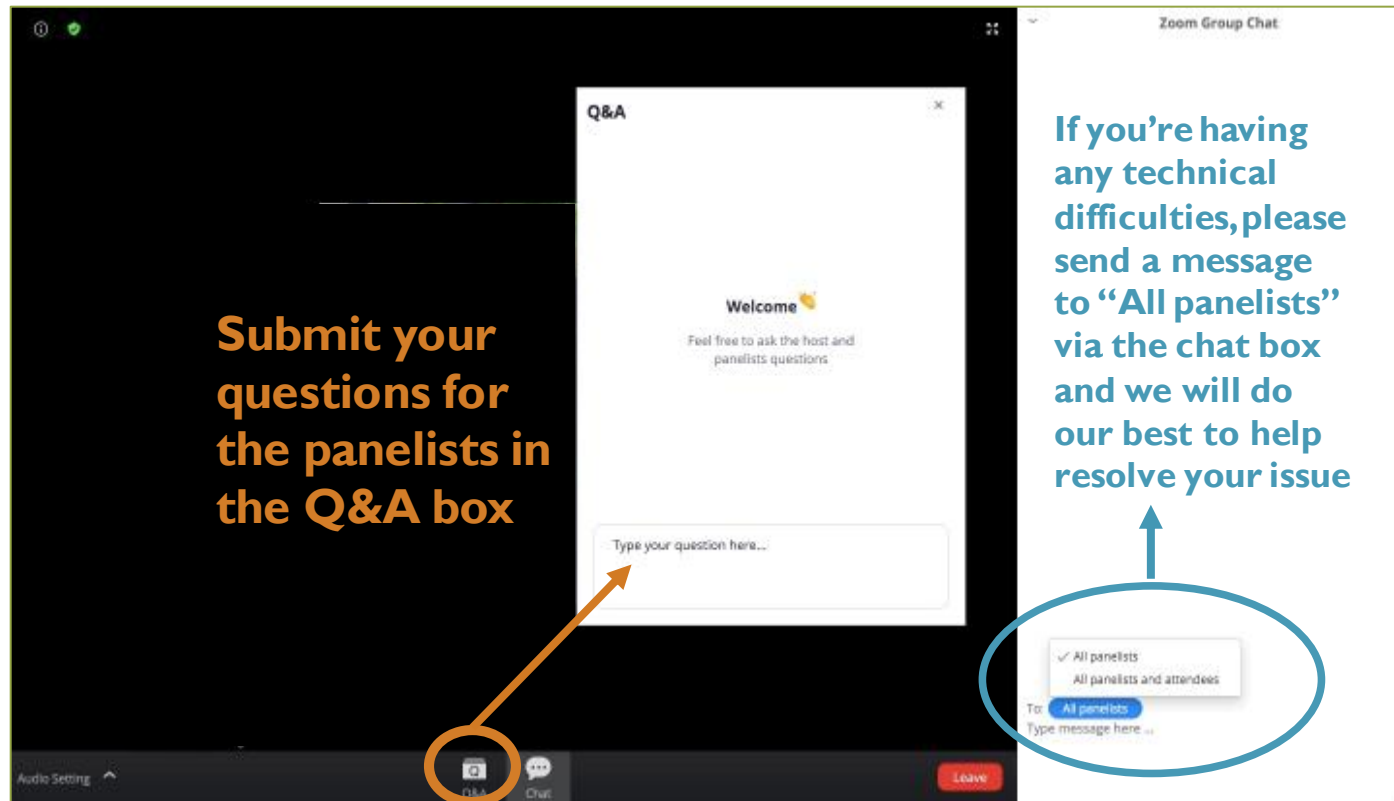
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## WELCOME TO THE ZOOM WEBINAR

**If you are unable to hear, connect your speakers by selecting “Join Audio”**

**Please use the chat box to introduce yourselves and share thoughts and comments by sending a message to “All panelists and attendees”**

## Q&A AND CHAT



The image shows a Zoom meeting interface with two windows. The left window is titled 'Q&A' and contains a 'Welcome' message: 'Welcome 🍌 Feel free to ask the host and panelists questions'. Below the message is a text input field labeled 'Type your question here...'. An orange arrow points from the 'Q&A' icon in the Zoom bottom toolbar to this input field. The right window is titled 'Zoom Group Chat' and shows a message selection menu. A blue circle highlights the 'To:' dropdown menu, which has 'All panelists' selected. A blue arrow points from this selection up to the chat text area. The chat text area contains the instruction: 'If you're having any technical difficulties, please send a message to "All panelists" via the chat box and we will do our best to help resolve your issue'.

**Submit your questions for the panelists in the Q&A box**

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The Food Systems for Nutrition Innovation Lab

## Webinar Series with Thriving Solutions: Introduction to Urban Food Systems

Zoom Webinar | Wednesday, September 20th, 2023 | 7:30-8:45 AM (ET)



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*Reimagining our food systems to sustain our future*

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Friedman School of  
Nutrition Science and Policy



# Introduction to Urban Food Systems

*September 20, 2023*

*Presented by: Seta Tutundjian*

September 20, 2023 / Introduction to Urban Food Systems / Presented by: Seta Tutundjian

*Photo credit: Name/Organization*



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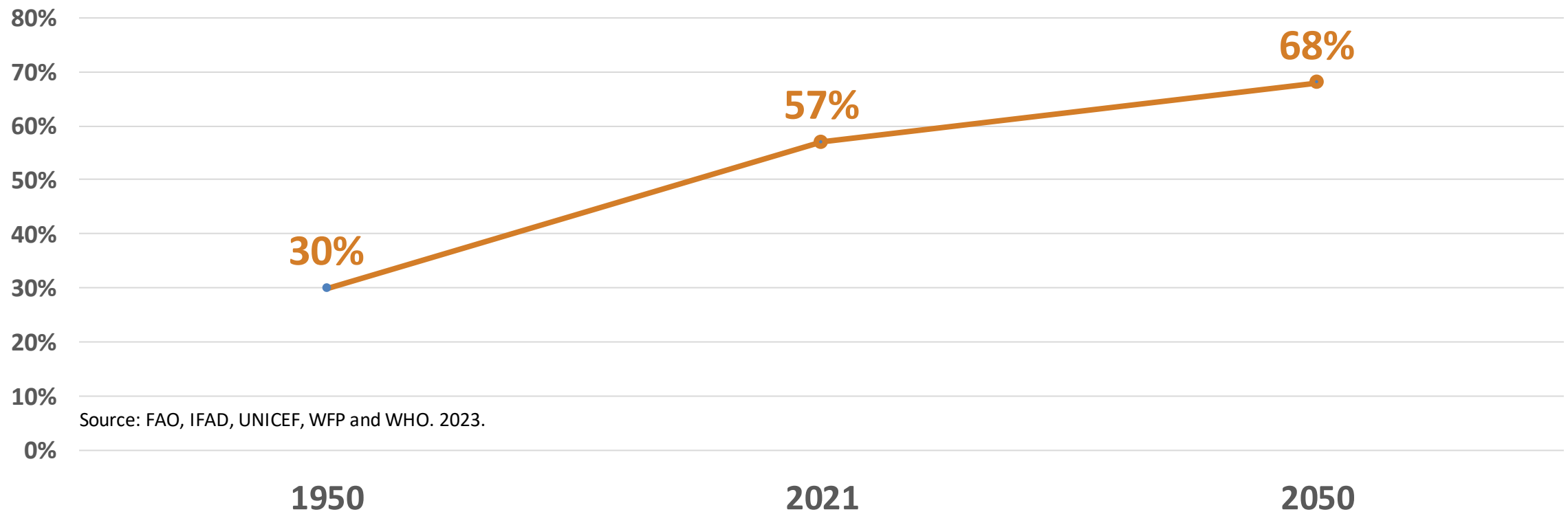
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## What Is An Urban Area?

- ✓ Urban areas are densely populated and developed regions. (*buildings, roads, bridges, railways...*)
- ✓ Most inhabitants have non-agricultural jobs.
- ✓ It includes towns, cities, and suburbs.
- ✓ **Peri-urban:** the surrounding areas immediately outside a town or city. These areas are transitions between rural and urban land areas.

# GLOBAL URBANIZATION RATE



Source: FAO, IFAD, UNICEF, WFP and WHO. 2023.



## WHY ARE URBAN FOOD SYSTEMS IMPORTANT?

- 70% of produced food is for urban areas.
- Urbanization is transforming agrifood systems.
- Urbanization is affecting access to affordable healthy diets across the rural urban continuum.





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## WHAT ARE URBAN FOOD SYSTEMS?



# FOOD SYSTEM

## EXTERNAL DRIVERS

ENVIRONMENT AND CLIMATE CHANGE

GLOBALIZATION AND TRADE

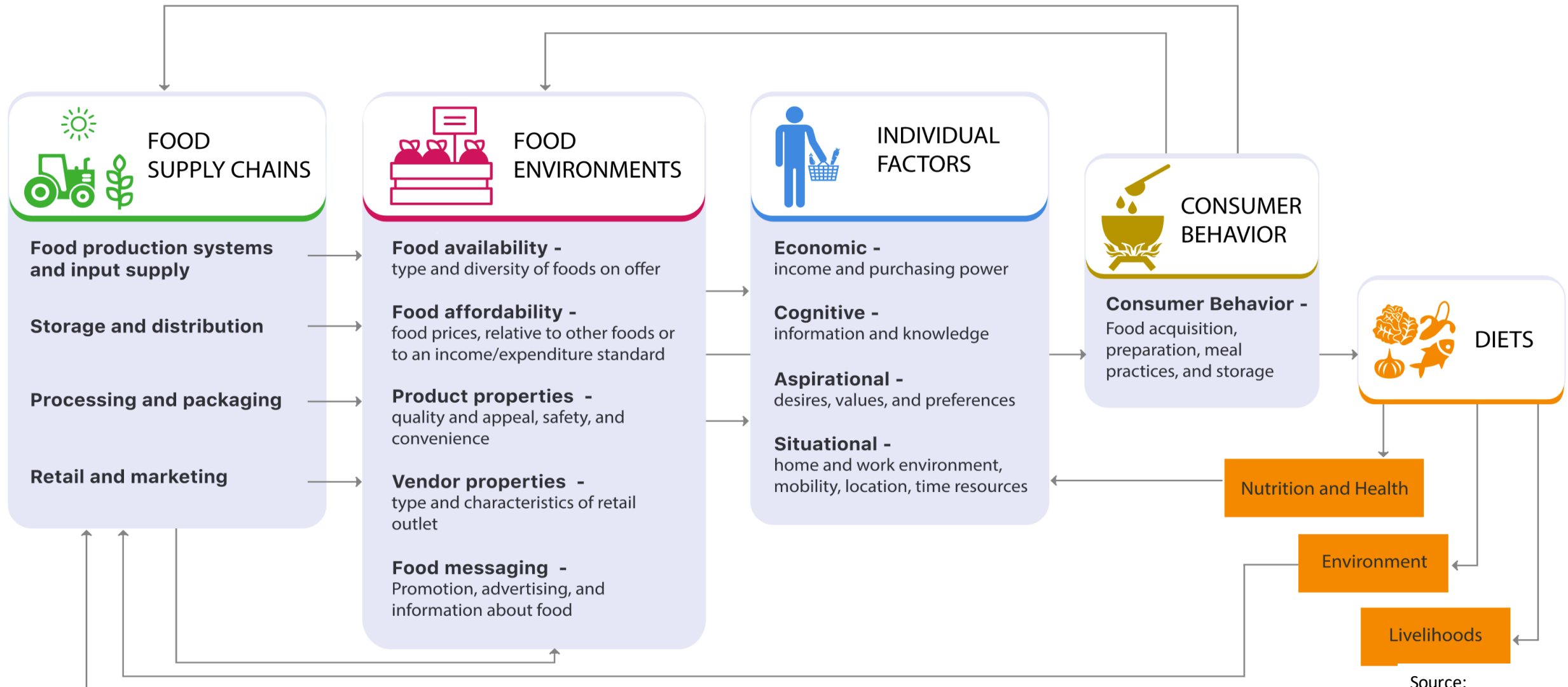
INCOME GROWTH AND DISTRIBUTION

URBANIZATION

POPULATION GROWTH AND MIGRATION

POLITICS AND LEADERSHIP

SOCIO-CULTURAL CONTEXT

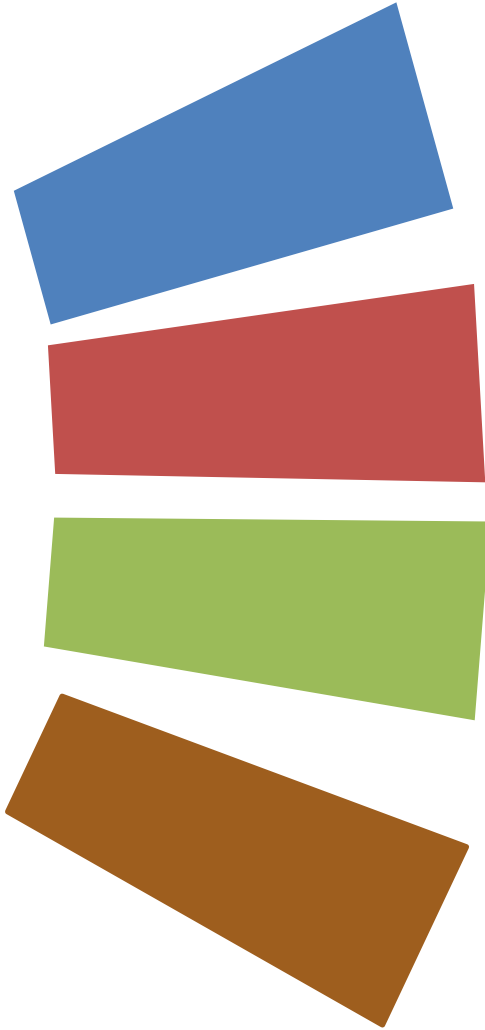




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## Key Elements



**Value Chain**

**Food Environment**

**Individual Factors**

**Waste Management**



**Consumer Behavior**

**Diets**



## Food Supply Chains

### Production Systems

- *Urban production*
- *Per-urban production*
- *Local rural production*
- *Imported*

### Storage & Distribution

- *Status of Infrastructure (roads, ports, storage, fleets) depending on sources of food.*
- *Strategic storage reserves.*

### Processing & Packaging

- *In urban areas, per-urban areas, rural areas, external.*

### Retail & Markets

- *Wholesalers*
- *Traders; retailers*
- *Food service (restaurants, cafeterias....)*



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## URBAN AGRICULTURE

- Is the practice of growing, processing, and distributing food in or around urban areas.
- It can be on rooftop gardens, community gardens, school gardens, and vertical farms.



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## URBAN AGRICULTURE



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## Food Environments

*“Are the places **where food is acquired or consumed** and the **nexus of interaction** between individuals and those aspects of the food system related to food production, processing, transportation, labelling, marketing, retail, and food disposal and waste.”*



Are local markets informal or formal?  
Wholesale and farmer market are the accessible to producers/ consumers?  
What are food safety measures?



Are retails accessible and connect to producers/ consumers? Ratio of healthy versus sugary, high fat, ultra process food? Advertisement?





Are there a lot of **food swamps**?  
Food environments dominated by fast and junk food outlets mostly stocked with unhealthy high-calories sugary, ultra-processed foods, with no or little access to “healthy” foods.

Are there many **food deserts**?  
Areas with non-existent or limited food outlets, so residents have constrained access to healthy and affordable food (fresh foods, fruits, vegetables, meat).

## PROMOTION, ADVERTISEMENT, INFORMATION

- ✓ Are there any advertising and marketing regulations for food?
- ✓ What is the mandatory information on product label?
- ✓ Is there promotion and nudges for healthy food?





## Food Environments impact

### Food Availability *(physical access)*

- *Types and diversity of food available in the market*

### Food Affordability *(economic access)*

- *Food prices and how prices relate to peoples' income*
- *Prices of healthy food*

### Product Properties

- *Food quality, appeal to consumers and convenience*
- *Food safety*

## Individual Factors

### Economic

- *Income and purchasing power*

### Cognitive

- *Information and knowledge*

### Aspirational

- *Desires, values, culture, preferences*

### Situational

- *Home and work environment*
- *Mobility, time, and location*
- *Food swamps/food deserts*

Source: Food Systems Dashboard

# FOOD ENVIRONMENTS AND INDIVIDUAL FACTORS DRIVE CONSUMER BEHAVIOR



Dominance of food swamps and  
desserts



Long hours commuting,  
less time for cooking.



Sedentary lifestyles.

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## URBAN DIET PATTERNS

- Increasing dependence on processed and ultra-processed food. Less whole grains, fruits and vegetables.
- Adoption of urban sedentary lifestyle, less movement and exercise.
- Rise in obesity and non-communicable diseases.



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## WASTE MANAGEMENT

- Waste occurs during production, distribution, food storage and handling, distribution and consumption of food.
- Food Waste (edible and inedible components).
- Packaging/ utensils Waste.



## FOOD WASTE

- Food waste is a major problem in cities as 70% of produced food is for urban areas.
- 40% of food produced for human consumption is lost or wasted.
- Food waste negatively impacts the environment, the economy and people.







## PLASTIC WASTE

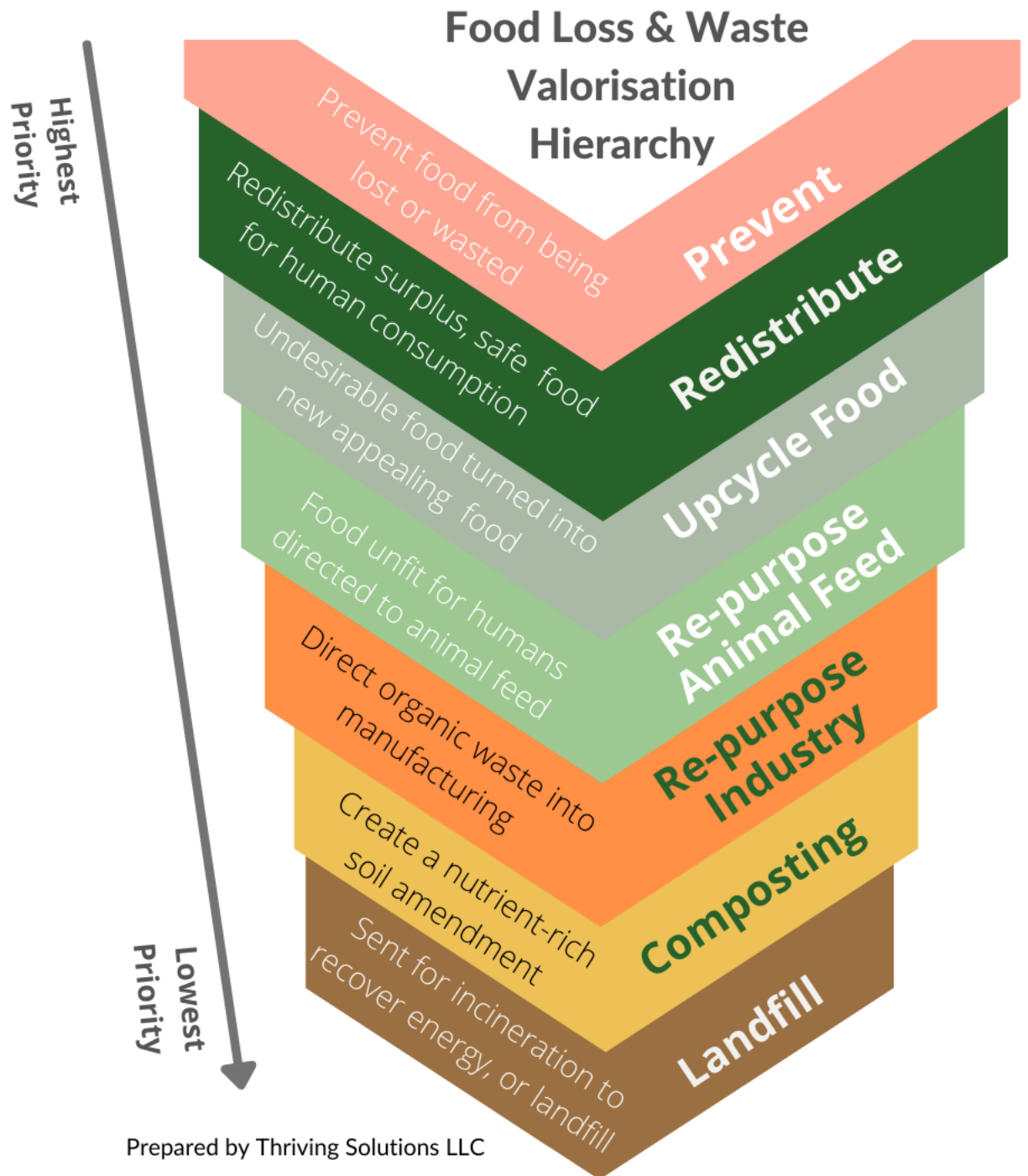
- **30%** of plastics produced is used for packaging and within the food industry (Source: EMF)
- Most of the plastic used for food, is single use and ends up in landfills, oceans or waterways.
- According to the World Economic Forum, cities generate about 60% of the world's plastic waste.



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# Valorization Hierarchy

Positive impact on urban food security, environment, economy.



## REDISTRIBUTION

Redistribution of surplus food particularly to those in need can have a positive impact on urban food security.

- ❖ Food Banks
- ❖ Community fridges
- ❖ Reduced price outlets



# TYPES OF FOOD SYSTEMS

## Traditional & Informal

- Food is locally produced (by small farms) and locally consumed.
- Short supply chains.
- Seasonal production, mainly staple crops.
- Retail is predominantly informal markets, street vendors, small shops, district markets.
- Basic processing and limited packaging.
- High rate of malnutrition, and infectious diseases.
- Food is a large percentage of the household budget.

## Modern

- Food systems are industrialized and highly concentrated.
- Global supply chains
- Well developed infrastructure.
- High availability of convenient to eat processed and packaged foods.
- Food safety is compulsory and imposed.
- Food is a small percentage of household budget.

# TYPES OF FOOD SYSTEMS

## Mixed

- Food is locally produced by small and large farms.
- Some specialized products for export.
- Rise in imported food.
- Improved infrastructure but not attainable by rural poor.
- Mix between formal and informal markets.
- Emergence of safety standards
- Food is a moderate percentage of household budget.



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## Q&A



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## WHOLESALE MARKETS THE ESSENTIAL LINK IN URBAN FOOD SYSTEMS



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## WUWM

- WUWM is a unique platform for coordinated action that strengthen leaders' decision-making and promotes multi-stakeholder dialogues facilitating greater innovation in the fresh food sector by:
- sharing best practices on common challenges
- developing new insights on global food system
- promoting the need for a more sustainable food supply chain.



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## URBANISM I / 2

- According to the World Bank in April 2023, 4,4 bn people were considered urban population
- This is 56% of the global population.
- The prediction for 2050 is 70%.
- There are around 20 megacities of 10m inhabitants.
- And all these have to be fed.

## URBANISM 2/2

- Cities usually have to be surrounded by arable lands to be fed.
- When they expand, they expand on these very arable lands. That means less soil to be cultivated.
- Rural population produces and feeds itself, but when they are transformed to urbanites, someone else has to feed them.
- The crucial question for the 21<sup>st</sup> century is how large concentrations of people can find more sustainable ways of co-existing in the planet without destroying it.

## CONCEPT OF FOOD

- People especially in western societies believe that their food comes out of the thin air.
- After the WWII the global north strived to avoid a next, possible, famine.
- The industrialization of agri-food industry produced cheap and affordable food for everyone.
- Wholesale markets were created. Most of the major European ones were funded by the Marshall Plan.
- But this has never been the case or the Global south.



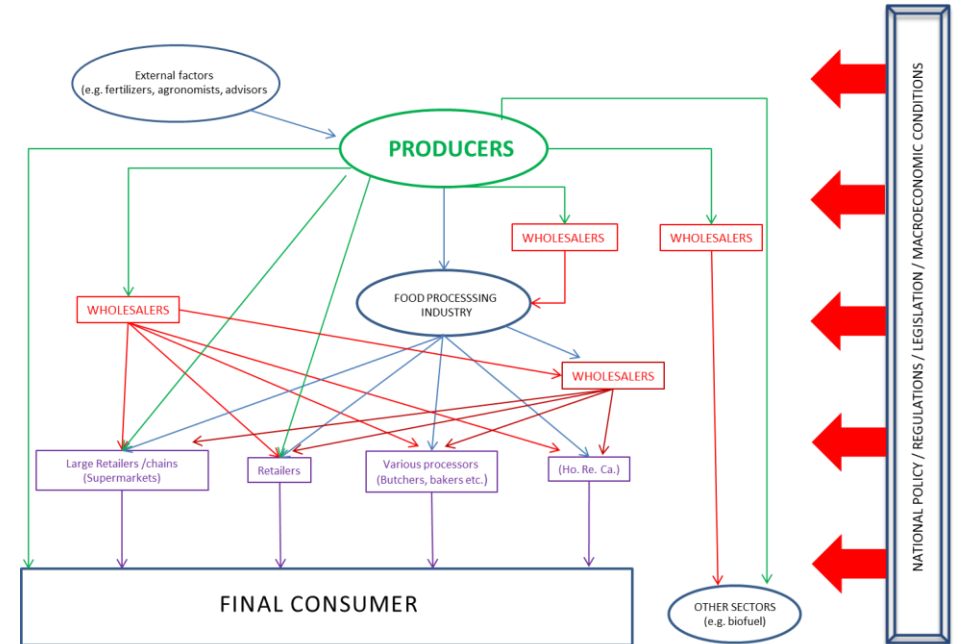


## WHOLESALE MARKETS

- Since the dawn of the human societies, food acted as the glue to stick the social tissue together.
- Trade became the most profitable occupation, and marketplaces became a necessity.
- Ancient cities were built about the focal point of the market.
- As human societies and the trade evolved, the role of marketplaces evolved as well.
- There are wholesale markets operating almost uninterrupted for almost a millennium  
(Borough – London, Les Halles – Paris, etc.)

# CONCEPT OF FOOD

- Most citizens seem to ignore a very complex chain with a variety of links, whose names may just remind something.
- In fact an urban supply system is far more sophisticated.



## STAGE I

- Everybody sells everything to everybody.
- There is no applicable law.
- The most important element acquired by the market is the information.



## STAGE II

- Trade laws are applied.
- Wholesale and retail trade are separated.
- State creates wholesale markets.



## STAGE III

- >50 % of the produce pass through the markets.
- Major players are within the markets.
- Markets become “price regulators”.





## STAGE IV

- Wholesale markets are pushed out of cities.
- Market shares are decreased.
- Alternative competitive channels are formatted (Supermarkets, e-commerce).



## STAGE V

- Wholesale markets bounce back.
- They are adapting to the new era.
- Initiate new functions like:
  - Warehousing
  - Electronic delivering
  - Urban Consolidation Centers



## MAIN CHARACTERISTICS

- They are close to the city.
- They have everything in large numbers (merchants produce, volumes). So wholesale markets:
  - Enhance the competition among the merchants,
  - Guarantee the variety and the alternative choices
- They are the epicenter of every information (about prices, quantities, qualities, demand).
- They promote food safety. Authorities can inspect everything in one place
- They are democratic institutions. No one is excluded.

## WHOLESALE MARKET DISADVANTAGES

### Wholesale markets are usually blamed for

- Creating traffic congestion due to large numbers of trucks.
- Causing pollution (Producing large numbers of waste, air pollution, noise pollution)
- Being nests of illegal trade (money/labor/hygiene/ghetto)
- Occupying valuable urban space
- Being obsolete and unnecessary, since they have been surpassed by other channels.



## WHAT IS THE REALITY?

(Traffic congestion)

- It is true that wholesale markets are infested with trucks, but....
- Imagine the chaos that would be caused if the traffic of a wholesale market had to be spread in the city.
- Last decade we are discussing about “last mile” and urban consolidation centers; Trucks going in a UCC, goods re-parceled and distributed in the city. This is exactly what wholesale markets have been doing for decades.



## WHAT IS THE REALITY?

### (Pollution)

- It is true that wholesale markets produce waste, but....
- Almost every wholesale market is a champion of circular economy.
- There are markets with retrievability of >95 % recycling rate (Melbourne), others promoting second use for unsold produce (from juices and marmalades to dried fruits and social plates).

## WHAT IS THE REALITY?

(ghettos occupying public space)

- Food has to be distributed in the city and wholesale markets are integrated within this.
- Rungis, the world's most successful market is located just 6 km from Paris Centre.
- New Covent Garden in London and Queen Victoria Market in Melbourne have funded their renovation, by selling parts of their plots for residential uses.
- There are wholesale markets hosting festivals, local cuisine events, promotion of culinary civilization, even picnics and theaters. So they are literally public places.

## ARE WHOLESALE MARKETS USEFUL? I / 2

- Wholesale markets have been catering cities for centuries.
- The role of the wholesale markets is to bring together supply and demand for fresh produce to organize the accessibility of fresh, quality products in a more efficient way.
- Modern wholesale markets benefit all food system actors and are the most efficient, with inclusive logistical platforms, ensuring food security at both the local and global levels.



## ARE WHOLESALE MARKETS USEFUL? 2/2

- Beyond the role that they used to have – as simply a place of “physical markets”, modern wholesale markets work today as “fresh food logistical hubs” allowing for the development of sustainable and resilient food systems.
- Pandemic crisis has created important disruptions in many aspects of modern life. Wholesale markets proved to be a really resilient, and efficient model to ensure food security during crisis. Most of them managed to operate, and prevent shortages that could be catastrophic.



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## Q&A



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