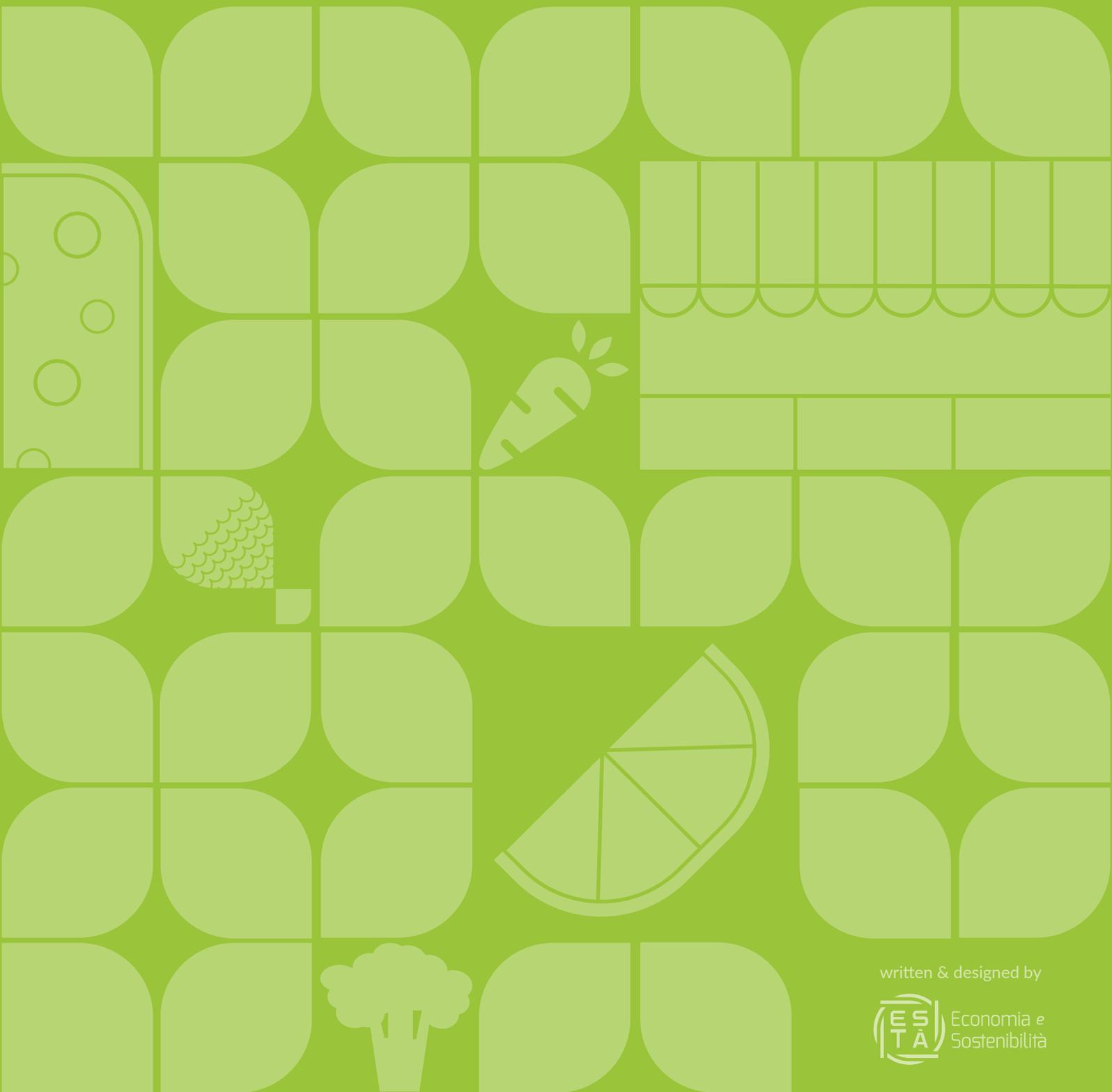


# WHOLESALE MARKETS

*public spaces for interconnected food policies*



written & designed by

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### **Municipality of Milan**

Anna Scavuzzo, Vice Mayor of Milan  
Beatrice Arcari, Director of Education Division  
Andrea Magarini, Director of Food Policy Department  
Filippo Gavazzeni, Head of the MUFPP Secretariat  
Serena Duraccio, MUFPP Secretariat Officer  
Francesco Cagnola, MUFPP Secretariat Officer

[www.milanurbanfoodpolicypact.org](http://www.milanurbanfoodpolicypact.org)

*With the contribution of*



### **Italian Agency for Development Cooperation**

*With the contribution of*



### **WUWM - World Union of Wholesale Market**

Valérie Vion, *General Secretary of the World Union of Wholesale Markets*  
Hermine de Nantois, *Policy Advisor & Executive Assistant to the General Secretar*

*With the contribution of*



### **Fondazione Cariplo**

### **Working group Està - Economia e Sostenibilità**



*Scientific Director*  
Andrea Calori  
*Work Group Coordinators*  
Bianca Minotti and Francesca La Rocca  
*Research and Text*  
Bianca Minotti and Carlotta Milone  
*Graphic design, maps, infographics, cover*  
Giulia Tagliente

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# Introduction





# What is the MUFPP

## Milan Urban Food Policy Pact

The Milan Urban Food Policy Pact is **one of the main legacies** of the Universal Exhibition “Expo Milan 2015” Feeding the Planet, Energy for Life. The Milan Pact is a global commitment of mayors from around the world that considers food as an entry point for the sustainable development of growing cities. It represents the **main framework** for cities and international stakeholders active in the definition of innovative urban food policies.

## Milan Pact Framework for Action

The Milan Pact is the result of a **participatory process** among 46 cities that worked together in 2014, under the guidance of a technical team of international experts, on the definition of 37 recommended actions structured into **6 integrated categories**:



The Milan Pact's Framework for Action presents a holistic approach towards the food system. A dedicated Monitoring Framework supports cities in better structuring and assessing the impact of their food policies.

## Governance and membership

To date, **the Milan Pact gathers more than 290 cities**, representing a total of 490 million inhabitants over the **6 MUFPP regions**. The governance of the Pact is ensured by a Steering Committee, which is elected every two years and has the responsibility of representing signatory cities at global level. It is composed of 13 members, 2 per each MUFPP region together with the Mayor of Milan which is the permanent Chair.

# What is AICS and its focus on wholesale markets



The Italian Agency for Development Cooperation (AICS), founded in 2016, operates under Italy's Ministry of Foreign Affairs and International Cooperation to address global challenges and support sustainable development in low-income countries through the implementation of targeted initiatives. **AICS prioritizes projects focused on reducing poverty, advancing human rights, and promoting sustainable economic growth.** AICS' work aligns with the United Nations' Sustainable Development Goals (SDGs), focusing particularly on sectors like human and economic development, food security, rural development, environmental sustainability, and emergency humanitarian aid. It collaborates with international partners, civil society organisations (CSOs), and local communities to deliver aid, build infrastructure, and empower vulnerable populations through education and vocational training. **AICS operates in Africa, Asia, Latina America and Eastern Europe through 18 field offices,** by emphasising a cooperative approach to ensure that development efforts align with the specific needs of the communities it serves.

The Italian cooperation traditionally intervenes in the field of rural development and food security with initiatives that are also aimed at supporting the local private sector and creating employment opportunities. Wholesale markets play a pivotal role in the economic landscape of third countries, as they facilitate the movement of agricultural produce, manufactured goods, and other commodities from producers to consumers efficiently and cost-effectively, aggregating products from a multitude of small-scale producers. In this sense, for example, **the Market Access and Rural Infrastructure Project in the Tahoua Region (PAMIRTA) in Niger** involves the construction of infrastructures in four Economic Development Poles, with the aim of improving access to markets and agricultural inputs, reorganizing and strengthening marketing points for producers in agro-pastoral areas, thus increasing their incomes and agricultural producers' capacity through the organization of trainings, school camps and awareness-raising activities. Moreover, **in Tunisia,** AICS is financing the preliminary studies for **the creation of a production and valorisation center for agri-food products in Sidi Bouzid for the Central West area,** aiming at dynamizing the internal market and encouraging potential foreign commercial channels by valorising agricultural products coming from the surrounding areas.

# Why wholesale markets

**Wholesale markets are essential public infrastructure for urban food policies.** They efficiently distribute fresh produce, connecting farmers with retailers and consumers while also supporting regional economies and potentially reducing environmental impact. **Wholesale markets have a great role in ensuring food safety and quality standards, increasing consumer trust and playing an important role in food education as well.**

These objectives are at the core of the Milan Urban Food Policy Pact. Within the Framework for Action there is a whole category on “Food Supply & Distribution” that appears to be linked to wholesale markets. Many cities are also working on this topic under other relevant categories, such as “Food Production”, “Sustainable Diets & Nutrition” and “Food Waste”. What is more, **the MUFPP Monitoring Framework developed with FAO and RUAF, has devoted indicators on wholesale markets that can support cities in assessing and monitoring their policies.** Through the Milan Pact Awards (MPA) we can understand the focus of the MUFPP cities along with their challenges and learning needs. Even though wholesale markets can be found in every city in the world and are essential to the functioning of their food system, some practices have been specifically collected on this issue.

**It is foreseen that by 2050 70% of the global population will live in cities. Mayors will be even more at the forefront to provide food services to respond to citizens’ needs. Wholesale markets are a strategic infrastructure of the urban food system just like the school meals, agriculture land, waste segregation system.** Effective governance ensures fair practices, price stability, and collaboration among local, regional, and national authorities and private actors. These markets support the integration of local producers, sustainable diets, and nutrition education. They also influence food production by promoting quality, locally sourced products. Additionally, wholesale markets manage food stocks, contribute to price stabilization, and play a crucial role in food distribution, including efforts to reduce carbon emissions. They implement systems to ensure food safety and quality, and play a significant role in reducing food waste by efficiently connecting producers and buyers and redistributing surplus produce to vulnerable populations. Overall, wholesale markets contribute to sustainability by conserving resources and minimizing the environmental impact of food distribution. Hence, **MUFPP cities should be the starting point for strategic design of wholesale markets as drivers for local food policies.**

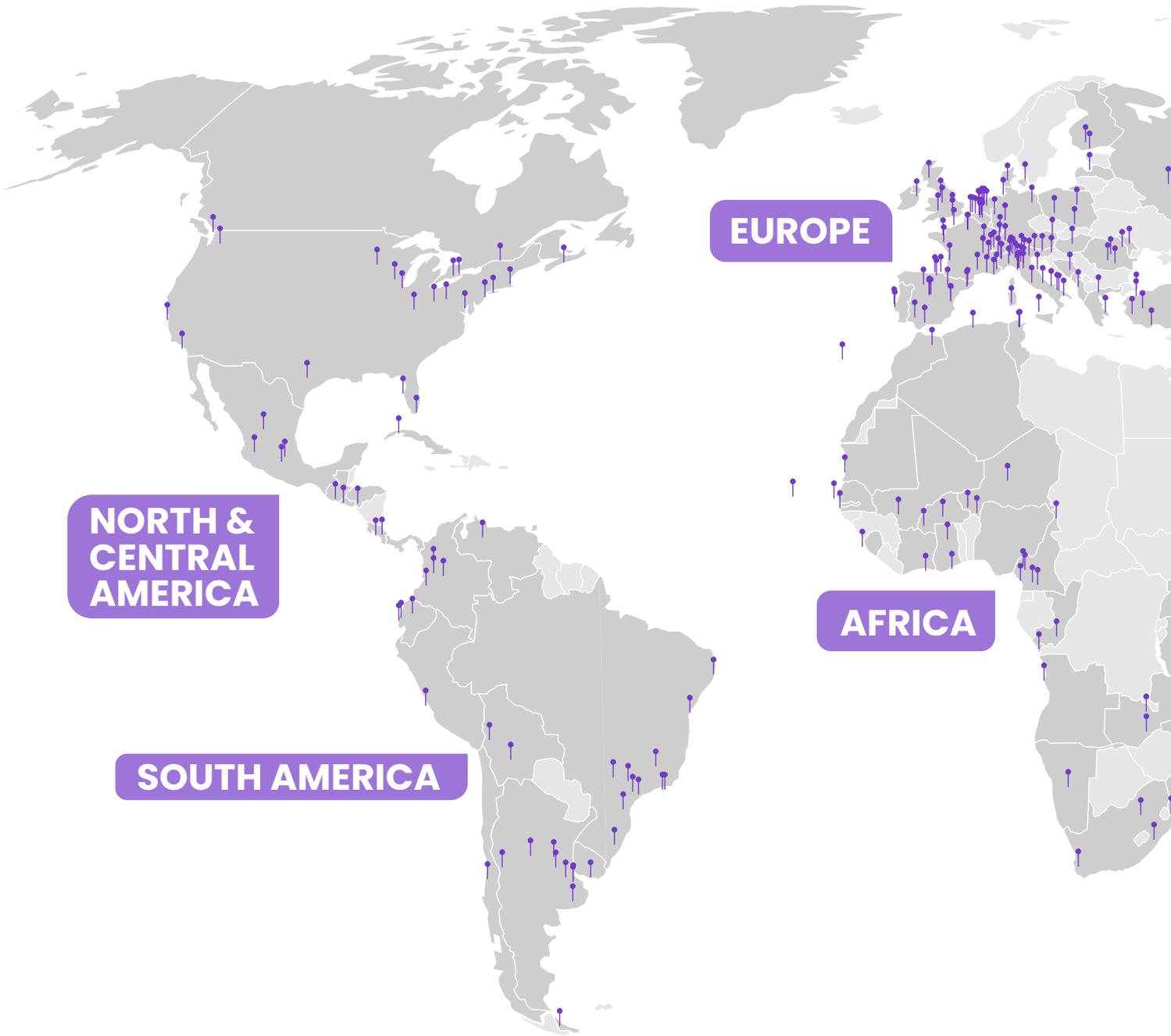
Firstly, **the MUFPP Framework for Action equips cities with a systemic approach to understanding food systems and formulating corresponding policies.** By adopting this framework, cities gain a comprehensive understanding of the intricate connections between various elements

of the food system, **enabling them to develop more effective strategies for enhancing food security, sustainability, and resilience. Secondly, the MUFPP fosters knowledge exchange and collaboration among cities, facilitating the sharing of best practices and lessons learned.** Through this collaborative platform, cities can learn from each other's experiences, successes, and challenges in implementing local food policies, thus accelerating the adoption of innovative approaches and strategies, including the strategic design of wholesale markets. Lastly, MUFPP cities inherently recognize the significance of food as a fundamental aspect of urban agendas. By prioritizing food within their policy frameworks, **MUFPP cities acknowledge its critical role in promoting public health, economic development, social equity, and environmental sustainability.** This recognition provides MUFPP cities with a unique advantage in leveraging wholesale markets as strategic drivers for advancing local food policies, as they are already attuned to the broader implications and benefits of fostering robust and equitable food systems within urban contexts.



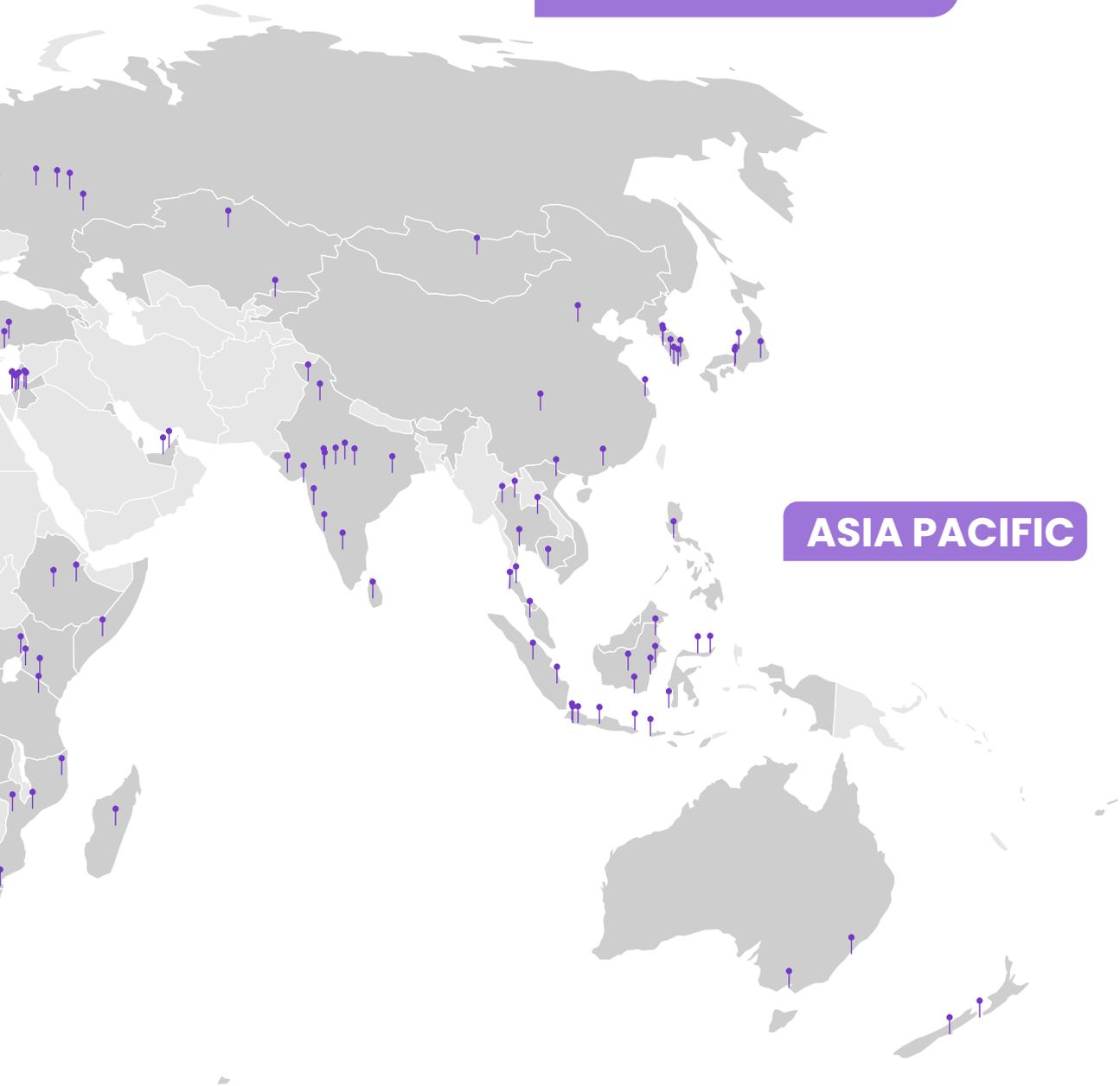
# MUFPP Signatory Cities

**295** CITIES in  
**89** COUNTRIES



**EURASIA &  
SOUTH WEST ASIA**

**ASIA PACIFIC**



# The World Union of Wholesale Markets



In 1952, the World Union of Wholesale Markets (WUWM) was founded, to represent and support wholesale markets around the world. It is an international network comprising organizations involved in the distribution of fresh food, that has been **working to promote and advocate for the markets' interests**. WUWM consists of **191 members that represents 311 wholesale markets and operates across 46 countries** on five continents, acting at international, regional and local levels, thus playing a vital role in the global food supply chain and the development of wholesale markets. Every day, the markets part of the Union provide fresh and nutritious food to over 3 billion people worldwide. **WUWM's goal is to enhance access to nutritious diets by establishing more sustainable, equitable, and premium-quality systems for the distribution of food through the development of well-organized and modern wholesale markets**. Indeed, the focus is to reduce food losses and waste, lower greenhouse gas emissions, implement sustainable logistics and preserve biodiversity in order to achieve a greener food supply sector and a climate-neutral food supply chain. **The existence of an organization such as WUWM is fundamental because it facilitates collaboration and systemic actions, which are necessary due to the complexity of improving food distribution**. The Union allows **sharing best practices and knowledge** by organizing two conferences each year and regularly convening working groups on the most pressing topics. **It empowers the stakeholders** in the fresh food chain with the essential skills, information, and connections to enhance their abilities. The WUWM **makes it possible to connect new ideas with food actors around the world**, facilitating innovation in the sector, which is required to reach a state of food security.

The wholesale markets play a pivotal role in addressing the sustainability challenge of providing food to the global population, and they are infrastructures with a lot of opportunities to generate change. Their potential is being well recognized: indeed, WUWM's members were invited to share their experience both during the **Eurocities meeting of 2022 and the 7<sup>th</sup> MUFPP Global Forum** that was held in Barcelona in 2021. Wholesale markets were part of the food policy conversation, and debates were held about their role and importance. The outcomes of the discussions demonstrated the different areas in which wholesale markets can have positive impacts and how they can serve as a model for food distribution with a circular approach. If properly managed and organized, **they can efficiently control the system: making sure that zero food waste is achieved, becoming energy efficient, improving the logistics of food circulation, ensuring accessibility for low-income populations,**

**helping reshape local agriculture, educating consumers by promoting a certain food model and influencing consumption.** With the efforts of the European WUWM working group, the European Parliament recognized in June 2023 that wholesale markets are integrated and complementary to primary agricultural production. Without them, farmers, logistics, and distribution businesses would not be able to ensure a consistent supply that meets consumer needs. For example, by enabling small and medium-sized farmers to distribute their produce, wholesale markets optimize their potential and ensure fairness for the producers while offering appealing prices to consumers.

**Since wholesale markets take care of the majority of the food available in cities, they possess the capacity to offer fresh food choices to consumers with a wide array of options. This potential empowers them to promote healthy eating habits and directly influence the population' diets, which underlines their social role and responsibilities regarding urban food policy.** They could become a representation of what are considered sustainable, healthy and sovereign diets, thus **contributing to public critical debates around food**, and could become **platforms where cities can dialogue with the different actors and listen to their needs.** Their activity could be digitalised in order to have a source of data to inform policies, create new knowledge and find innovative solutions. Wholesale markets also have the **potential to reorganize the logistics of the food supply chain and reduce flows to obtain the best food circulation at a fair price, supporting the needs of vulnerable populations.** In addition, they offer the opportunity of reterritorialization by promoting local and organic production, thus strengthening the agricultural and food autonomy and dynamizing the territory.

The **World Union of Wholesales Market** is making an effort to give visibility and space to this topic on the policymaking table. During the **United Nations Food System Summit (2021)**, WUWM hosted five autonomous dialogues, conducted across four regional sessions (Asia, Europe, Latin America, and Africa).

**The outcome of these dialogues<sup>1</sup> showed a set of priorities for each region regarding the topic of wholesale markets:**

- In the **African Dialogue**, the core issue highlighted was **food insecurity, particularly in Sub-Saharan Africa.** Ongoing challenges like rapid urbanization, climate change, poverty, and the Covid-19 pandemic underscored the need for a systemic approach to ensure a resilient food supply. Governments and municipalities were urged to bolster their capacity in **food governance and urban planning.** Regarding wholesale markets, the focus was on establishing **stronger links with smallholder**

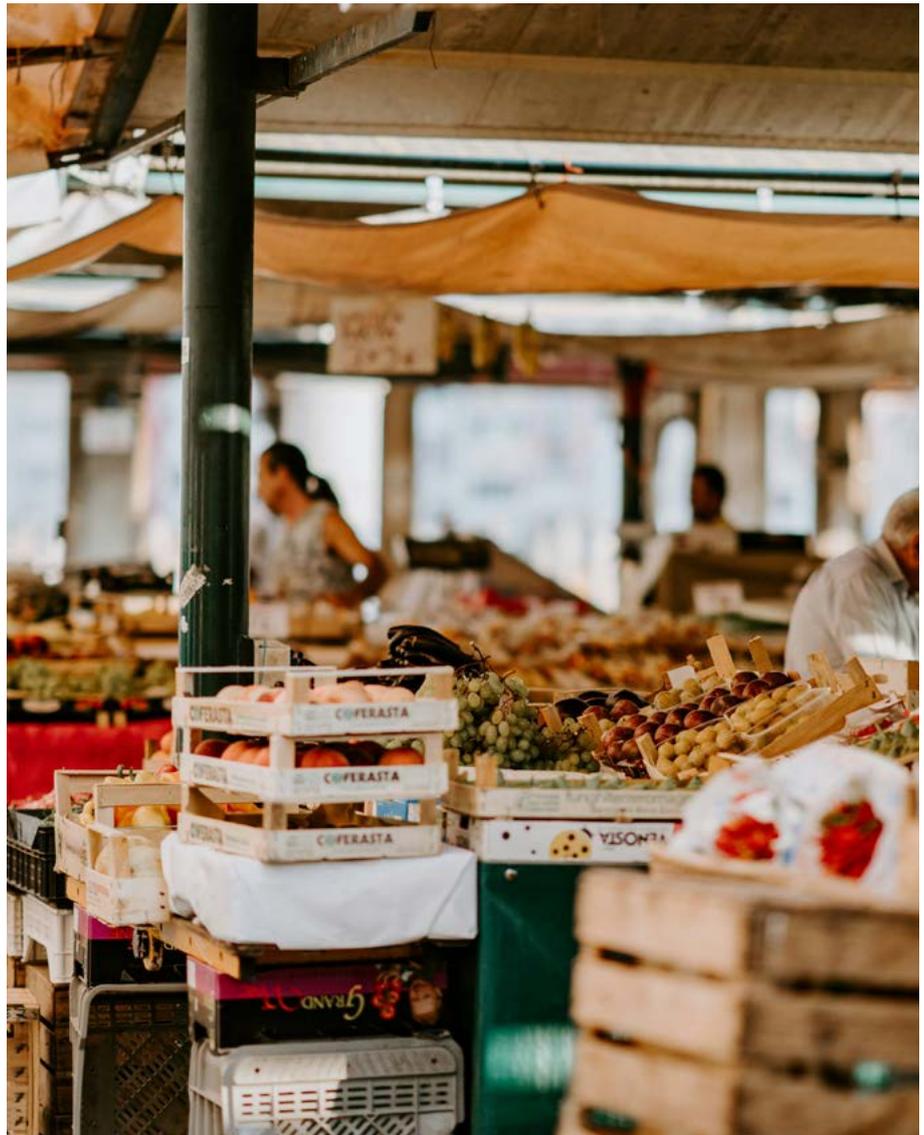
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1. Which are summarized in the Annual Report 2021 of the WUWM (Available at: <https://wuwm.org/resources/>)

**farmers** through improved infrastructures such as better roads and online platforms. Local authorities promised to prioritize access to clean water and electricity, vital for both rural communities and urban markets.

- **The Asia-Pacific region, being the most densely populated, required making the provision of nutritious diets a top priority.** This involves **enhancing and upgrading infrastructures**, while fostering **awareness of the health benefits** associated with fresh and nutritious diets. As megacities rapidly multiplied in the region, participants of the dialogues emphasized the importance of strengthening governance and policy coherence. This includes building **connections among stakeholders** in the food sector and leveraging digital tools for enhanced food safety and efficient fresh food distribution. Additionally, recognizing the significant issue of food losses, participants collectively agreed on the imperative to improve services along the food value chain and **reduce food waste**, especially in countries where losses exceed 50%.
- **Despite the acknowledged leadership of European wholesale markets in regional fresh food distribution, participants in the dialogue underscored the importance of reconnecting people to nutritious food.** It was emphasized that **awareness of the health benefits**, quality, and sustainability in fresh food systems needs to be heightened. **Wholesale markets** can contribute to this objective in two ways: firstly, **by promoting increased consumption of locally produced fruits, vegetables, wholegrain cereals, nuts, and pulses; secondly, by offering and endorsing more sustainably produced food products and meals.** To ensure a sustainable European food sector, there is a call to support fresh food markets in modernizing their structures, with a specific focus on **incorporating green energy**. The promotion of short supply chains and the reduction of food waste through **circular economy strategies** were central themes. Participants concluded that wholesale markets have a pivotal role to play in fostering the sustainability of European food systems.
- **During its dialogue, Latin America identified a critical need to foster connections among food system stakeholders, aiming to enhance various aspects for a more resilient supply, improved urban planning, and reduced food loss.** Emphasizing the necessity for **high-quality infrastructure investment**, there was a consensus on the importance of strengthening local value chains, expanding access to healthy foods, and implementing **better traceability**. To promote the adoption of healthy diets across the Latin American population, experts stressed the importance of **redirecting education efforts towards highlighting the health benefits of cooking with fresh fruits and vegetables.** Additionally, it was recommended that these nutritious foods be incorporated into school menus.

Overall, wholesale markets could play an active role in the food system serving as **strategic infrastructures**, which would bring several co-benefits not only related to trade, but also to the creation of urban foodscapes, helping move towards more sustainable urban areas, and better connected to the rural ones. As demonstrated by FAO's work<sup>2</sup> cities with an effective and modern wholesale market infrastructure experience less disruption, price volatility and food shortage, underlining their important contribution to cities' food security. Different projects are being implemented to make the most out of wholesale markets in several cities, as explained in the following sections.



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2. FAO and FLAMA. 2021. Wholesale markets: The circular economy and wholesale food markets – 24/08/2021. Bulletin 7. Santiago. Also, FAO has an ongoing study, in partnership with World Union of Wholesale Markets (WUWM), World Bank, EBRD, ADB, AfDB, and others, on the importance of wholesale food markets in food system resilience.

# Wholesale markets as elements of transformation of food systems





# Introduction to the background and history of wholesale markets



Wholesale markets, often referred to as “food markets”, play a **crucial role** in the distribution of essential food products, including fruits and vegetables, meat, fish, and dairy products. These markets serve as **vital hubs for the bulk buying and selling** of such commodities, connecting producers and suppliers with retailers, HoReCa, specialized businesses and others that require a steady supply of fresh and high-quality food items. The historical framing of wholesale markets as places of wholesale trade for cities around the globe is a proof of their **enduring significance in the food supply chain**.

The origins of wholesale markets can be traced back to ancient civilisation, where centralised trading hubs facilitated the exchange of agricultural goods.

**Wholesale markets as we know them today began to take shape during the Middle Ages in Europe.** Medieval cities, particularly those with trade and commerce as their lifeblood, established central markets where goods, including food, could be bought and sold in bulk. These markets **were often located in the heart of the city and attracted merchants and traders from surrounding regions.** Over time, these markets evolved to meet the growing demand of urban centers, transforming themselves into bustling and specialized commercial spaces. Wholesale markets played a pivotal role in supporting the world’s **rapidly expanding urban populations** during the Industrial Revolution, as cities swelled and food distribution became increasingly important. These early markets allowed for the exchange of surplus agricultural products and were critical for urban food supply.

**In the modern era, the importance of wholesale markets has grown exponentially due to globalization.** As transportation and communication systems improved, cities began to rely on wholesale markets not only for local and regional produce, but also for **goods from around the world.** Wholesale markets became specialized, focusing on specific types of products such as fruits and vegetables, meat, fish, or dairy. With urbanization, modern wholesale **markets have shifted from city centers to areas outside cities** - situated near airports, harbors, highways, or train stations- **to handle larger volumes of goods with greater efficiency, leading to increased productivity and competitiveness. This relocation ensures that these markets are well-connected globally.** Moreover, logistical infrastructure development has enabled wholesale markets to expand their reach and access to a wider range of suppliers and consumers. By facilitating the rationalization of supply chains, modern logistic infrastructure has also

allowed for more efficient transportation and distribution of goods within wholesale markets. Innovations, such as automated sorting and handling technologies, have enhanced the speed and accuracy of operations within the markets themselves.

**Today, wholesale markets are often overlooked in the world of food policy, despite their vital role in the food supply chain.** While there is considerable attention given to local food markets and their significance in promoting sustainability and community engagement, wholesale markets tend to be a little-addressed theme, even though they are of paramount importance in ensuring food accessibility and distribution. Recognizing the importance of wholesale markets in the broader context of food policy is essential. Policymakers should consider the modernization, promotion, and sustainability of these markets to ensure they continue to meet the needs of consumers and businesses alike. **By addressing wholesale markets as a central component of a food policy, a more resilient, efficient, and equitable food supply chain can be created, benefiting both producers and consumers, while promoting overall food security and sustainability.**



# Wholesale markets in the MUFPP tools

The Milan Pact Framework for Action defines **37 recommended actions** structured into **6 integrated categories**. This framework presents a **holistic approach towards the food system**. A dedicated Monitoring Framework supports cities in better structuring and assessing the impact of their food policies. Combining the MUFPP recommended actions and indicators, with SDGs specific targets help better understand the progress that has been made to reach global and common goals.

As the graph at page 23, **wholesale markets are a cross-topic that integrate different MUFPP categories, therefore addressing several different SDGs**. The most prevalent MUFPP category is **Food Supply & Distribution**, which is strongly related to **SDG 11 “Sustainable Cities and Communities”** but also to **SDG 12. “Responsible Consumption and Production”**. Indeed, **Food Production** and **Food Waste** also appear to be important categories when talking about wholesale markets. Strong implications with SDG 1 and 2 and the category **Sustainable Diets & Nutrition** are also present.

## Relevant MUFPP recommended actions



7

**Action 7 Promote sustainable diets** (healthy, safe, culturally appropriate, environmentally friendly and rights-based) through relevant education, health promotion and communication programmes, with special attention to schools, care centers, markets and the media.

10

**Action 10 Adapt standards and regulations to make sustainable diets and safe drinking water accessible** in public sector facilities such as hospitals, health and childcare facilities, workplaces, universities, schools, food and catering services, municipal offices and prisons, and to extent possible, in private sector retail and wholesale food distribution and markets.



24

**Action 24 Help provide services to food produces in and around cities**, including technical training and financial assistance (credit, technology, food safety, market access, etc.) to build a multigenerational and economically viable food system with inputs such as compost from food waste, gray water from post-consumer use, and energy from waste etc. while ensuring that these do not compete with human consumption.

25

**Action 25 Support short food chains**, producers’ organizations, producer-to-consumer networks and platforms, and other market systems that integrate the social and economic infrastructure of urban food systems that link urban and rural areas. This could include civil society-led social and solidarity economy initiatives and alternative market systems.



28

**Action 28** Support improved food storage, processing, transport and distribution technologies and infrastructure linking peri-urban and near rural areas to ensure seasonal food consumption and reduce food insecurity as well as food and nutrient loss and waste with an emphasis on diversified small and medium scale food businesses along the value chain that may provide decent and stable employment.

29

**Action 29** Assess, reviews and/or strengthen food control systems by implementing local food safety legislation and regulations that (1) endure that food producers and suppliers throughout the food chain operate responsibly; (2) eliminate barriers to market access for family farmers and smallholder producers; and (3) integrate food safety, health and environmental dimensions.

30

**Action 30** Review public procurement and trade policy aimed at facilitating food supply from short chains linking cities to secure a supply of healthy food, while also facilitating job access, fair production conditions and sustainable production for the most vulnerable producers and consumers, thereby using the potential of public procurement to help realize the right to food for all.

31

**Action 31** Provide policy and programme support for municipal public food markets including farmers markets, informal markets, retail and wholesale markets, restaurants, and other food distributors, recognizing different approaches by cities working with private and public components of market systems.

32

**Action 32** Improve and expand support for infrastructure related to food market systems that link urban buyers to urban, peri-urban and rural sellers while also building social cohesion and trust, supporting cultural exchange and ensuring sustainable livelihood, especially for women and young entrepreneurs.



37

**Action 37** Save food by facilitating recovery and redistribution for human consumption of safe and nutritious food, if applicable, that are at risk of being lost, discarded or wasted from production, manufacturing, retail, catering, wholesale and hospitality.

**Linked to the actions previously mentioned there are several MUFPP indicators that, together with SDGs targets, can be very helpful for city officials and policymakers to monitor the impact at local level.**



These indicators help cities assess their progress and improve their policies related to food security, nutrition, and sustainability. They in fact are created to provide a standardized way for cities to assess their food policies, share best practices, and encourage innovative solutions for healthier, more sustainable urban environments. In particular, the list of indicators that follows refer to specific parameters that are helpful to monitor recommended actions in the MUFPP categories of: Sustainable Diets & Nutrition, Food Production, Food Supply & Distribution and Food Waste.

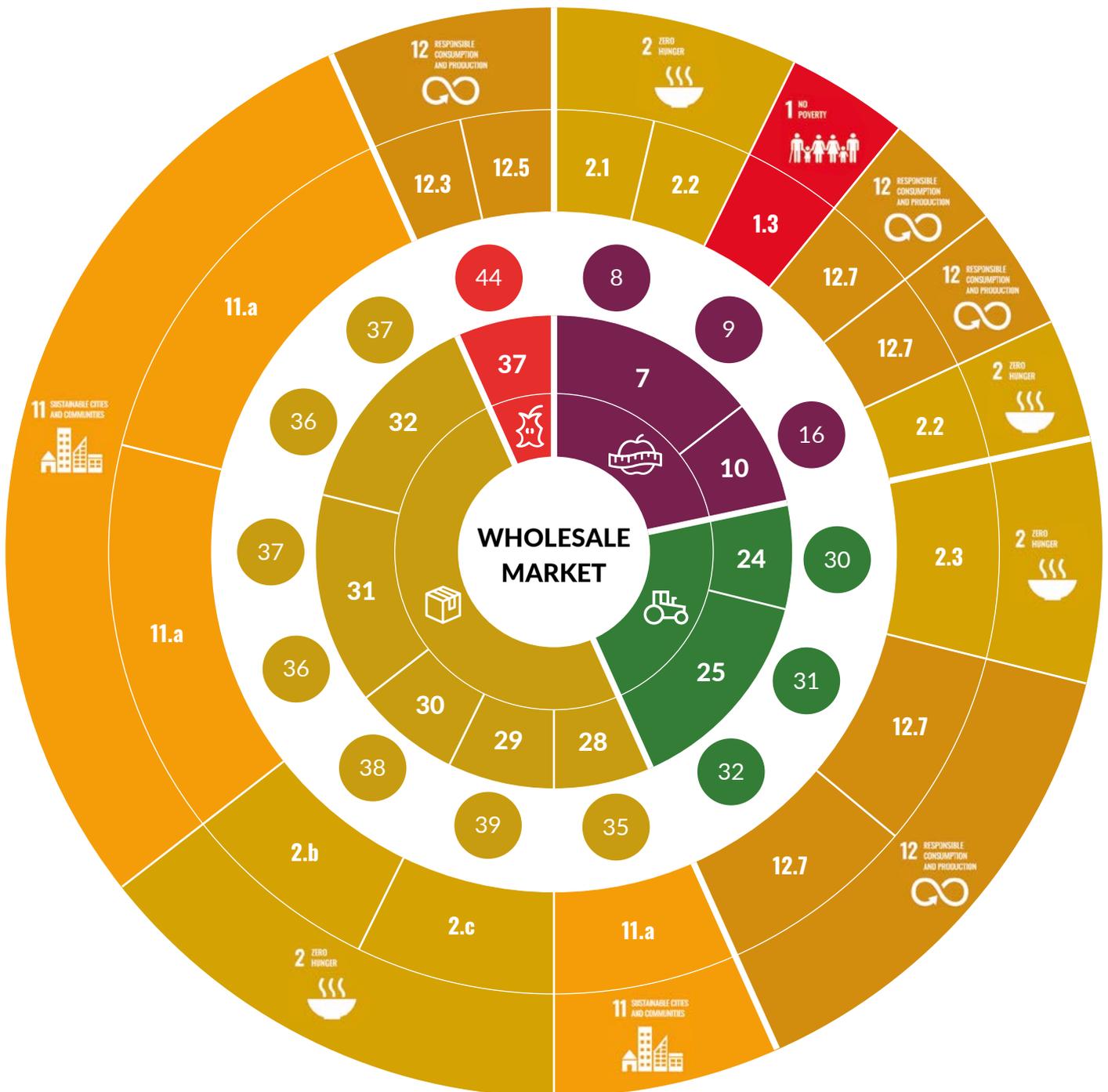
### MUFPP Indicators

- 8 Number of households living in "food deserts"
- 9 Cost of a nutritious food basket at city/community level
- 16 Presence of programmes/policies that promote the availability of nutritious and diversified foods in public facilities
- 30 Number of urban and per-urban food producers that benefited from technical training and assistance in the past 12 months
- 31 Number of municipal food processing and distribution infrastructures available to food producers in the municipal area
- 32 Proportion of local/regional food producers that sell their products to public markets in the city
- 35 Presence of a development plan to strengthen resilience and efficiency of local food supply chains logistics
- 36 Measures the number of food markets or retail outlets providing fresh fruit and vegetables per 1000 inhabitants that are directly supported by the municipality in some way
- 37 Annual municipal investment in food markets or retail outlets providing fresh food to city residents, as a proportion of total (investment) budget
- 39 Presence of food safety legislation and implementation and enforcement procedures
- 38 Proportion of food procurement expenditure by public institutions on food from sustainable, ethical sources and shorter (local/regional) supply chains
- 44 Total annual volume of food surplus recovered and redistributed for direct human consumption

## HOW TO READ THE INFOGRAPHIC

In the two innermost circumferences the categories and MUFPP actions related to school meals are represented. The dots represent the MUFPP indicators.

In the two outermost circumferences, the SDGs and related targets are represented.



# Wholesale markets as places to experiment connections with other food policy areas

Wholesale markets **serve as vital infrastructure for fostering sustainability, food security, economic development, and community well-being** in urban areas. In particular, it is a field in which most MUFPP categories can have their space of implementation and innovation.



## Governance:

Wholesale food markets play a crucial role in the food supply chain, serving as **vital intermediaries between producers and consumers. Effective governance of these markets is essential for ensuring food security, price stability, and fair-trading practices.** While wholesale food markets are often managed at the local level, involving regional and national governments in their governance can bring about several positive elements. **These markets serve as dynamic hubs where multilevel governance can occur, fostering collaboration between local, regional, national authorities and private actors as well.** Mercabarna, the wholesale market of **Barcelona**, is 100% hold by public companies of different levels : 51% is hold by Barcelona de Serveis Municipals, a company in which the Barcelona City Council is the sole shareholder; 37% is hold by Mercasa, a company composed by Spanish State Industrial Ownership Corporation (SEPI) and the Ministry of Agriculture, Fishing and Food, through the Spanish Agricultural Guarantee Fund (Fondo Español de Garantía Agraria, FEGA); and 12% is hold by the Government of Catalonia.

While for instance, in **Milan**, SO.GE.M.I. is the joint-stock company that, on behalf of the Municipality of Milan, manages all the wholesale agri-food markets in the city. In the wholesale market of **Birmingham**, on the other hand, the regional government holds the majority share. Different levels of government involvement can help in creating a strategic governance. The Rungis Market, in **Paris**, is a mixed public-private company with shareholders including the French State (33.34%), Predi Rungis (a subsidiary of Altea - Crédit Agricole Bank) (33.34%), the City of Paris (13.19%), the Val-de-Marne Department (5.60%), the Caisse des Dépôts et Consignations (4.60%), and market professionals -wholesalers, brokers, carriers, etc.- (9.93%). On the contrary, the **Pokhara** wholesale market, Nepal, is held by Shree Complex Pvt. Ltd, a private company.

Besides being the **space where public authorities can show their influence in shaping the urban food system** and virtuous **public-private partnerships** take place, wholesale markets can also support the **integration of local, small-scale producers into the market, aligning with policies aimed at**

**promoting sustainable agriculture and economic growth.** Their governance is essential for realizing a **holistic and efficient approach** to urban and regional food policies, positively impacting the entire food supply chain. For this reason, it is increasingly common to appoint specific municipality officers or administrators from food policy offices within wholesale governance. This approach aims to provide the market's government with an **integrated and systemic perspective on food-related matters.**

## Governance models and ownership structures

Wholesale markets are governed by various models worldwide. These governance structures dictate how markets are managed, regulated, and operated. They vary based on factors such as local regulations, market traditions, and stakeholders' interests. Each model presents distinct advantages and challenges, influencing the market's operations, dynamics, and contribution to the broader food system. **The ownership models, in particular, influence how the markets are run, how they are funded, and how they interact with the local economy and community.**

Below are the main types of ownership structures associated with wholesale markets:

- **PUBLIC OWNERSHIP:** in this model, the wholesale market is **owned and operated by a government entity.** Management is handled by a public authority or a government-appointed board, and funding comes from public budgets, subsidies, or specific taxes. Revenues may also be generated from rental fees or service charges to vendors and buyers. Public ownership offers advantages **such as a focus on the public interest, lower fees, and strong regulatory oversight.** These markets often prioritize **local economic development and food security.**
- **PRIVATE OWNERSHIP:** under private ownership, the market is **owned by individuals, companies, or investor groups** who run it as a for-profit business. The management team, either the owners themselves or hired professionals, is focused on profitability. Private markets are funded through private investments, bank loans, or operational revenues. This structure tends to be **more flexible and innovative, with a strong emphasis on efficiency and profitability.** Additionally, privately owned markets may have better access to private capital, allowing for expansion or modernization. Such ownership is **common in specialized or niche markets, particularly in rapidly growing sectors.**
- **COOPERATIVE OWNERSHIP:** cooperative ownership means that the market is owned and operated by its users, such as local producers, wholesalers, and sometimes buyers. These markets are managed by an elected board of directors, with decisions

made democratically by the cooperative's members. Funding typically comes from membership fees, cooperative shares, and revenues from market operations. This model focuses on member benefits, such as fair pricing, shared risks, and collective decision-making, and fosters a sense of community and collaboration. Agricultural cooperatives, common in many countries, often run wholesale markets using this ownership model for the benefit of their members.

- **PUBLIC-PRIVATE PARTNERSHIP (PPP):** a public-private partnership (PPP) is a hybrid ownership model where both public and private entities share ownership and operational responsibilities. This can take many forms, from joint ventures to long-term leases where a private entity manages a publicly owned facility. The management is either shared or contracted out, with specific roles defined by the partnership agreement. Funding comes from both public investments and private capital, and revenue is often shared between the two parties. **This model blends public interest and regulatory oversight with the private sector's efficiency and access to capital.** PPPs are especially effective for large-scale infrastructure projects where public funding alone might not suffice. Some developing countries and large metropolitan areas employ this model to ensure both public access and commercial viability.
- **NON-PROFIT OWNERSHIP:** in this ownership structure, the market is owned and operated by a non-profit organization, which could be a charity, foundation, or community group. The management, typically a board of directors or trustees, adopts a mission-focused approach. Non-profit markets are funded through donations, grants, and revenues from operations, with surplus revenues reinvested into the market or community. **This model emphasizes social goals, such as supporting small producers, promoting local food systems, or enhancing food security.** The non-profit structure reduces the pressure to generate profits, allowing for more community-centered initiatives. Farmers' markets and community food hubs often use this ownership structure.
- **MIXED OWNERSHIP:** in some cases, a wholesale market may be owned by a combination of public, private, and cooperative entities, with each stakeholder holding a share in the operation. Management is typically handled through a collaborative approach, often with a board representing the different ownership types. Funding for these markets comes from a combination of public funds, private investments, and cooperative member contributions. **Mixed ownership models are beneficial in balancing the interests of multiple stakeholders, often resulting in more stable and resilient market operations.** This model is suitable for large, complex markets that serve diverse communities and require a variety of funding sources.

## Governance models and ownership structures of wholesale markets

Type of ownerships	Fundings	Advantages
<b>PUBLIC</b>	Public budgets, subsidies, or specific taxes. Revenues may also come from rental fees or service charges to vendors and buyers.	Focus on public interest, potential for lower fees, and strong regulatory oversight. They may also prioritize local economic development and food security.
<b>PRIVATE</b>	Private investments, bank loans, or revenues generated from operations.	Potentially more flexible and innovative, with a strong focus on efficiency and profitability. They may also have better access to private capital for expansion or modernization.
<b>COOPERATIVE</b>	Membership fees, cooperative shares, and revenues from market operations.	Focus on member benefits rather than profits, promoting fair prices, shared risks, and collective decision-making. Strong emphasis on community and collaboration.
<b>PUBLIC-PRIVATE PARTNERSHIP</b>	A combination of public investment and private capital. Revenue sharing is often part of the agreement.	Combines the public interest and regulatory oversight with the efficiency and capital access of the private sector. This model can be effective for large-scale infrastructure projects where public funding alone is insufficient.
<b>NON-PROFIT</b>	Donations, grants, and revenues from operations. Surplus revenues are reinvested into the market or community.	Focus on social goals, such as supporting small producers, promoting local food systems, or improving food security. Less pressure to generate profits allows for more community-focused initiatives.
<b>MIXED</b>	A mix of public funds, private investment, and cooperative member contributions.	Balances the interests of multiple stakeholders, potentially leading to more stable and resilient market operations.



## Sustainable Diets & Nutrition:

Wholesale markets, with their capacity for large-scale distribution and diverse product offerings, **possess a unique potential to enact substantial positive change in urban environments by fostering the adoption of sustainable diets and enhancing nutritional standards.** This potential is particularly pronounced when wholesale markets strategically collaborate with school canteens. By forging partnerships, they **can effectively channel nutritious, locally-sourced foods directly into the plates of the younger generation,** thereby **influencing dietary habits** early in life and **nurturing a culture of health-conscious consumption.** Such collaborations not only bolster the availability of wholesome meal options for students but also serve as a catalyst for broader community engagement in sustainable food practices.

In **Milan**, for instance, SO.GE.MI (wholesale market managing company) together with Milano Ristorazione (school meals service municipal agency) are planning to strengthen their relationship and collaboration by building a new cooking center inside of the new food market area by 2025 in order to create this direct connection. In **Seoul** this relationship between wholesale market and school canteen service is already in practice: in order to minimize the redundancy in distributing channels and to insure a centralized control on food safety, the Seoul Metropolitan Government established a public procurement system called the Eco-Friendly Distribution Center, which signed a direct contract with 11 eco-friendly producers to deliver fresh agricultural products to schools every day. In particular, the system has contributed to the implementation of the vision of urban and rural co-prosperity as **70% of the vendors are small-sized, family farmers** (practice presented to the MPA 2022)

By directly sourcing fresh, local produce from these markets, **school canteens can ensure nutritious and healthy diets.** The reduction of food miles associated with sourcing from local wholesale markets not only supports the local economy, but also aligns with sustainability goals by lowering the carbon footprint of the food supply chain. Moreover, integrated school meals programmes provide **opportunities for food education,** such as field trips to the market, helping students learn about food sources. In **Madrid** Central Fruit and Vegetable Market, the project *La Escuela de La Fruta* collaborates with families and schools so that children can acquire knowledge and skills to adopt a healthy lifestyle. From interactive digital games, to planting workshops, recipe contests or proposals for culinary creations, kids and families can learn about sustainable diets within the context of the wholesale market.

## Relationships between consumers and wholesale markets

The relationship between consumers and wholesale markets is generally indirect but can vary depending on how the market operates and the type of consumer involved.

In most cases, consumers do not buy directly from wholesale markets, but they benefit from the availability, variety, and often lower prices of goods facilitated by wholesale markets, as well as from the quality and freshness of the products as these in grocery stores often originate from wholesale markets.

Some wholesale markets have a retail component, allowing consumers to purchase goods directly from vendors operating within or alongside the market. In these markets, consumers have direct access to fresh, often locally produced goods at competitive prices, as well as specialty items not commonly found in regular retail outlets. Examples include farmers' markets and open-air markets where wholesalers or local producers sell directly to the public.

Consumers can also include institutional buyers such as restaurants, hotels, schools, and hospitals, which source large quantities of food and other products directly from wholesale markets.

Hence, although most consumers don't engage directly with wholesale markets, their purchasing preferences influence the types of products these markets prioritize. As consumer demand shifts toward organic, local, or sustainably produced goods, wholesale markets respond by sourcing and supplying these items to retailers. For instance, the rising demand for organic products has led many wholesale markets to increase their focus on organic produce. The rise of e-commerce has allowed some wholesale markets or their vendors to sell directly to consumers online, bypassing traditional retail intermediaries. This provides consumers with access to bulk items or specialty products at wholesale prices, often with delivery options, appealing to large families, small businesses, or niche markets.

Wholesale markets, especially those emphasizing local and sustainable products, may engage directly with consumers through educational initiatives, tours, or events. These efforts aim to raise awareness of food systems, sustainability, and local agriculture, offering consumers insights into where their food comes from and the role of wholesale markets in the supply chain. Wholesale markets play a significant role in determining the prices consumers ultimately pay for goods. Efficient markets help stabilize prices and keep costs lower for consumers. For example, fluctuations in wholesale prices for staples like fruits, vegetables and grains can directly affect grocery store prices.



FOOD  
PRODUCTION

## Food Production:

**Wholesale markets provide a unique opportunity to influence the selling and production of quality food, with a specific focus on organically grown and locally sourced products.** By concentrating market activity in one location, wholesale markets create an **environment where the demand for high-quality food can be efficiently met.** For instance, Mercabarna, in **Barcelona**, besides the traditional fruits and vegetables, meat and fish markets, there is the Biomarket that sells only organic produce and a programme related to local farming that supports local production. In particular, the Biomarket has a total of 22 wholesale stalls specialized in organic food and 8 points of sale for small local producers.

Another example is *Mercado Central de **Buenos Aires*** that started an **Agroecological programme with the aim of encouraging the commercialization of agroecological foods of the area. The programme also serves as a space for training and technical assistance to producers within the wholesale market.** By featuring quality food prominently, retailers, restaurants, and other buyers can raise consumer awareness, making consumers more likely to seek out these high-quality options. In **Bordeaux**, the programme *Bordeaux Grandeur Nature* aims at providing **short-chain** produce by enlarging the agricultural land within the metropolitan cities boundaries.

Moreover, in the wholesale market of **Bangkok**, the *Talaad Thai* GAP QR Code tool is revolutionizing agricultural safety and quality by enabling consumers to trace the origins of vegetables, fruits, herbs, spices, and seafood through QR codes. Participating farmers, certified under standards like GAP or Organic Thailand, receive free QR code stickers, marketing support, and access to a dedicated sales area at Talaad Thai Market. With 405 members and 109 farmer groups across 24 provinces, the project supports farmers by offering fair prices, certification assistance, and wide distribution channels.

## Collaborations between wholesale and retail markets

**Wholesale markets and retail or neighborhood markets share a symbiotic relationship that is crucial for the efficient functioning of the food supply chain and the provision of fresh produce to consumers. Wholesale markets serve as central hubs where large quantities of goods, including fruits, vegetables, and other perishable items, are traded between producers, distributors, and retailers. These markets play a vital role in aggregating products from diverse sources, enabling economies of scale, and facilitating bulk purchases by retailers and foodservice businesses.** On the other hand, neighborhood markets, also known as retail or **local markets, are situated closer to residential areas and cater directly to consumers.** They offer a convenient and accessible shopping experience, providing a wide range of fresh produce, groceries

and other goods to meet the daily needs of local residents. The relationship between wholesale markets and neighborhood markets is characterized by a **flow of goods and information**. **Wholesale markets supply** neighborhood markets **with a steady stream of fresh and diverse products sourced from various regions and producers**. In return, **neighborhood markets provide feedback on consumer preferences, demand trends, and product quality**, which inform purchasing decisions and supply chain management strategies at the wholesale level.

These two types of markets often collaborate to **support local economies and promote sustainability**. Wholesale markets may partner with neighborhood markets to facilitate direct **sourcing from local farmers and producers**, thereby shortening supply chains, **reducing transportation emissions, and supporting small-scale agriculture**. In fact, their collaboration can help local economies by:

- **DIRECT SOURCING:** wholesale markets can facilitate direct sourcing of products from local farmers and producers for retail markets.
- **PROMOTING LOCAL PRODUCTS:** wholesale markets can actively promote locally sourced products to retailers, encouraging them to prioritize goods from nearby producers. Retail markets, in turn, can highlight the origin and quality of local products to consumers, fostering awareness and appreciation for locally made goods and supporting the growth of local businesses.
- **SUPPLY CHAIN EFFICIENCY:** collaborative efforts between wholesale and retail markets can optimize supply chain logistics, reducing inefficiencies and costs associated with transportation, storage, and distribution.
- **MARKET ACCESS:** wholesale markets can provide small-scale producers with access to larger retail markets, helping them reach a broader customer base and expand their business opportunities. Retail markets, on the other hand, can serve as platforms for showcasing and selling local products, creating visibility and market demand for goods produced within the community.

## Relationship's models between wholesales markets and local producers

In the relationship between wholesale food markets and local producers, several models are commonly used. These models vary based on the level of integration, the type of products, and the scale of the operation.

- **DIRECT SOURCING MODEL:** in this model, wholesale markets purchase directly from local producers **without intermediaries**. Producers deliver their goods to the wholesale market, where they are sold to retailers, restaurants, and other buyers. The advantages of this model include **direct communication, better price negotiation, reduced costs for both parties, and fresher products**. Therefore, it is commonly used for fresh produce, dairy, meat, and seafood.
- **AGGREGATOR MODEL:** an aggregator, which can be a **cooperative or a third-party organization**, collects products from multiple local producers and sells them collectively to wholesalers. **The aggregator handles logistics, quality control, and sometimes marketing**. This model offers easier access to a wider range of products, economies of scale, and reduced logistical burden on individual producers. It is commonly used for mixed produce, specialty products, and artisanal goods.
- **CONTRACT FARMING MODEL:** wholesalers enter into **contracts with local producers to grow specific products according to predetermined quality standards, quantities, and delivery schedules**. The contract usually outlines the price, reducing market risk for producers. This model provides **predictable income for producers, assured supply for wholesalers**, and potential for long-term partnerships. It is commonly used for high-demand crops, organic produce, and specialty products.
- **FARMER COOPERATIVE MODEL:** local producers form **cooperatives to pool resources, share knowledge, and collectively sell their products to wholesalers**. The cooperative manages sales, marketing, and often logistics. This model increases bargaining power, shares risks and resources, and provides better market access for smaller producers. It is commonly used for dairy, grains, fruits, and vegetables.
- **AUCTION MODEL:** some wholesale markets operate on an **auction basis, where local producers bring their products to a centralized location, and buyers (wholesalers, retailers, etc.) bid on the products**. This model offers transparent pricing, competitive market dynamics, and quick sales. It is commonly used for fresh produce, fish and flowers.
- **HUB-AND-SPOKE MODEL:** in this model, a **central hub (wholesale market) collects products from various local**

**producers (the spokes) and then distributes them to different buyers.** The hub may also offer value-added services like packaging, branding, and marketing. This model provides efficient distribution, centralized quality control, and expanded market reach. It is commonly used for mixed agriculture products, specialty foods, and value-added products.

- **ONLINE MARKETPLACE MODEL:** with the rise of technology, some wholesale markets or third parties have developed **online platforms where local producers can list their products, and wholesalers can purchase them directly.** The platform may handle payments, logistics, and quality assurance. This model offers **wider market access, convenience, and reduced transaction costs.** It is commonly used for specialty products, organic foods, and small-batch artisanal goods.

### Relationship's models between wholesales markets and local producers

Model	Advantages	Products sold
<b>DIRECT SOURCING MODEL</b>	Direct communication, better price negotiation, reduced costs, fresher products	Fresh produce, dairy, meat, seafood
<b>AGGREGATOR MODEL</b>	Easier access to a wider range of products, economies of scale, reduced logistical burden	Mixed produce, specialty products, artisanal goods
<b>CONTRACT FARMING MODEL</b>	Predictable income for producers, assured supply for wholesalers, potential for long-term partnerships	High-demand crops, organic produce, specialty products
<b>FARMER COOPERATIVE MODEL</b>	Increased bargaining power, shared risks and resources, better market access for smaller producers	Dairy, grains, fruits, vegetables
<b>AUCTION MODEL</b>	Transparent pricing, competitive market dynamics, quick sales	Fresh produce, fish, flowers
<b>HUB-AND-SPOKE MODEL</b>	Efficient distribution, centralized quality control, expanded market reach	Mixed agriculture products, specialty foods, value-added products
<b>ONLINE MARKETPLACE MODEL</b>	Wider market access, convenience, reduced transaction costs	Specialty products, organic foods, small-batch artisanal goods



## FOOD SUPPLY & DISTRIBUTION

### Food Supply & Distribution:

**Wholesale markets play a crucial role in managing food stocks through storage and distribution.** Wholesale markets often include **storage facilities, which enable short-term food stockholding.** This helps balance the supply and demand for food, **ensuring a steady food supply.** Wholesale markets also **contribute to price stabilization: by aggregating a wide range of products in one place, they can manage price fluctuations.** During times of surplus, **excess food can be stored and distributed later, preventing waste and maintaining price stability.** During emergencies, such as natural disasters or pandemics, these markets serve as strategic resources. They can house food stocks for distribution to affected regions or communities in times of need.

**These markets are also pivotal spaces to implement sustainable transportation.** While promoting the consumption of local food remains important, **recognizing the significance of innovation in last-mile transportation and long-distance imports is vital as well.** Sustainable transport is not only about reducing carbon emissions, but also about **improving efficiency and minimizing the environmental footprint of food distribution.** **Madrid's** wholesale market, *Mercamadrid*, for instance, is actively working to **decarbonize freight transports**, promoting an energy transition. This includes initiatives like the installation of charging points and green hydrogen production facilities, as well as the implementation of a centralized delivery system from food units to retail points. A remarkable development is the adoption of electric trucks in 2021. Transportation through railways is also another alternative, for instance the *Rungis* market in **Paris** is considering this new practice for a last mile smart distribution system.

Another important aspect of supply and distribution is **the consistency of food safety and quality. Temperature testing systems, traceability tools, and quality control mechanisms ensure that products meet rigorous standards.** These advancements prevent foodborne illnesses, reduce waste, and maintain consumer trust. The **IFS Cash & Carry Certification** is a globally recognized standard specifically designed, which sets comprehensive guidelines and criteria to ensure the safety, quality, and legality of products within the sector. This certification helps wholesalers and cash-and-carry stores to ensure transparent and traceable food safety and quality.

## Green logistics

The logistics of wholesale markets encompass the complex processes involved in the efficient movement, storage, and distribution of goods within these trading hubs. At the core of wholesale market logistics is the coordination of transportation networks, warehousing facilities, and supply chain management systems to ensure the delivery of products from suppliers to buyers. For these reasons, wholesale markets are often located in close proximity to transportation hubs and production centers. Moreover, logistics play a crucial role in maintaining the quality and freshness of perishable products. Temperature-controlled storage facilities and refrigerated transport vehicles are essential components of this process, ensuring that products reach their destination in optimal condition. Digital platforms and technological innovations enable market stakeholders to access real-time market information, negotiate prices, and place orders remotely, enhancing efficiency and transparency in trading operations.

To make the logistics of wholesale markets more efficient and sustainable, there are several practices throughout the supply chain to minimize carbon emissions, reduce waste, and conserve resources:

1. **optimizing transportation** routes to minimize fuel consumption,
2. **adopting eco-friendly packaging** materials,
3. **implementing energy-efficient technologies** in storage and distribution facilities.

**Green logistics is essential in food systems to mitigate the significant environmental impacts caused by transportation activities, which account for a great share of greenhouse gas emissions.** The rise in transport emissions poses a major challenge to achieving climate protection goals, requiring a shift towards less polluting modes of transport and the deployment of sustainable technologies and infrastructure. Moreover, **urban areas face congestion and accessibility issues** exacerbated by population growth and tourism, **leading to high costs in last-mile logistics, notably for food products.** Consequently, **the adoption of decarbonization solutions in transport, particularly in urban food supply logistics, is crucial for the resilience of global food systems.** By addressing these challenges and promoting circular economy principles, green logistics initiatives can contribute to reducing the environmental footprint of food supply chains, while enhancing energy efficiency and food resilience in the region.



FOOD WASTE



SOCIAL & ECONOMIC  
EQUITY

## Food Waste and Social & Economic Equity:

**Wholesale markets are also instrumental in the ongoing battle against food losses and waste.** They serve as pivotal intermediaries in the food supply chain, efficiently connecting producers and buyers. These markets streamline the distribution of food products, **ensuring that surpluses are minimized and that products find buyers rather than ending up as waste.** By offering a centralized location for farmers to sell their produce, **they reduce post-harvest losses by getting products to market quickly, lowering the chances of spoilage.**

Additionally, **wholesale markets often serve as hubs for redistributing imperfect or surplus produce to various channels, including food banks and processors, reducing waste while assisting vulnerable populations.** In **Milan**, The Foody Zero Waste Hub is an innovative initiative aimed at minimizing food waste and promoting sustainability within the city's food system. It serves as a central hub where surplus food from various sources, such as wholesale markets, retailers, and producers, is collected and redistributed to those in need. The hub utilizes efficient logistics and distribution networks to ensure that excess food is redirected to charitable organizations, food banks, and community initiatives rather than being discarded. **Mercabarna**, in **Barcelona**, is also committed to achieving zero waste including various projects and initiatives that are developed in the medium and long term, donating fresh produce to food banks. Since 2002, **Mercabarna** has created a hub that serves as a collection, sorting and distribution center for surplus fresh food. This type of practice crosses the ocean, where also **Buenos Aires** works rescuing food for human consumption. Since the beginning of 2021, more than 601,800 kilograms of food per month have been recovered and donated to soup kitchens and social organizations.

The wholesale market of **San Francisco** has an initiative as well, the *SF Market Food Recovery Program*, that connects surplus food from 15 merchants with local organizations, providing fresh produce to Bay Area residents, while reducing food waste and saving businesses disposal costs. Since 2016, the programme has recovered over 6.5 million pounds of food, providing more than 5.4 million meals. During the COVID-19 pandemic, the *San Francisco Market's Emergency Food Program* distributed millions of pounds of produce and groceries to food-insecure residents, delivering over 400,000 meals and grocery bags. Supported by various organizations, including the San Francisco Department of Environment and the Crankstart Foundation, these programmes highlight the SF Market's commitment to community health and sustainability.

**By reducing food waste, wholesale markets contribute to sustainability by conserving resources and minimizing the environmental impact of uneaten food.**



# Case studies library





## Addis Ababa, Ethiopia, Africa

### Ehil berenda

The city of Addis Ababa hosts a diverse range of food retail outlets, broadly categorized into traditional retailers, public cooperatives, and private modern retailers. Traditional outlets such as flour mills, regular shops, and cereal shops are heavily involved in distribution. The key wholesale market, *Ehilberenda*, functions as both a wholesale and retail market. Modern retailers have yet to make a significant impact on cereal distribution, presenting an opportunity for strategic investment to modernize and streamline this aspect of the food system. Fruits and vegetables follow a similar pattern, with *Atikelt Tera* being a prominent wholesale market. Processed foods, offering consumers a wide array of options, involve various traditional and modern outlets. *Merkato*, for instance, stands out as a significant wholesale market for processed foods.

**Investments in wholesale food markets should be prioritized for fostering sustainable transformation within Addis Ababa's food system.** These are particularly crucial in enhancing efficiency, infrastructure, and logistics within key wholesale markets like *Ehil berenda*. Furthermore, directing investments towards modernizing cereal distribution, strengthening the supply chain for fruits and vegetables, and optimizing outlets for processed foods, such as *Merkato*, can significantly bolster sustainability efforts. In essence, by focusing on bolstering infrastructure, logistics, and supporting diverse retailer types, strategic investments in wholesale food markets hold the potential to drive sustainable change and guarantee access to diverse and nutritious food for urban consumers in Addis Ababa.



## Niger, Nigeria, Africa

### PAMIRTA project

The *PAMIRTA project* involves the construction of **infrastructure in the south-central region of Tahoua**, Niger, in four Economic Development Poles (Badaguichiri, Guidan Idder, Tounfafi and Karofane), with the aim of **improving access to markets and agricultural inputs, reorganizing and strengthening marketing points** for producers in the agro-pastoral basins, consequently increasing their incomes.

This infrastructure includes about **180 km of rural tracks, 4 semi-wholesale markets** (at the 4 Economic Development Poles) and **8 collection centers** in villages adjacent to these markets.

The Semi-Wholesale Markets consist of warehouses, sheds, sorting areas, open spaces, and administrative and sanitary blocks, and market all agricultural products in the area, including equipment, fertilizer, manure, etc. The management of these markets is delegated by municipal authorities to ***Groupements d'Intérêt Economique*** composed of **representatives of the various categories of actors** (agricultural producers, traders, brokers, transporters, unions, etc.), who sign contracts that regulate the management, maintenance and hygiene of the facilities and the distribution of revenues. **Capacity-building activities** of agricultural producers in the identified Economic Development Clusters were carried out by **local NGOs and associations** through the organization of trainings, school camps and awareness-raising activities.



## Sidi Bouzid, Tunisia, Africa

**SOMAPROC project:** <https://somaproctn.com/>

The Italian Agency for Development Cooperation is providing funding to study the creation of a **production and enhancement center for agricultural products** in the Center-West area of Tunisia, focusing on Sidi Bouzid and covering Kairouan, Kasserine, and Gafsa. This region is significant for its agricultural output, producing a large portion of the country's vegetables, beef, milk, and fruit. The center aims to **boost the local economy, support foreign trade, and create job opportunities, particularly for youth in the deprived area of Sidi Bouzid.**

The project, overseen by the public company SOMAPROC under the **Ministry of Trade and Industry**, aims to **enhance and market local agricultural and livestock products**. Objectives include improving traceability of food chains, optimizing distribution, reducing informal sector influence, and enhancing local and export distribution networks. The project includes a market for agricultural products, a livestock market, a slaughtering and meat processing complex, an agribusiness space, a logistics platform, and a support center for innovation. It also promotes renewable energy use and waste recycling. The investment plan, totaling **approximately €35 million**, involves both public and private funds.



## Shanghai, Jiangsu, Zhejiang, and Anhui regions, China, Asia Pacific

### Durafresh Central Kitchen Project

The ***Durafresh Central Kitchen Project*** in China, spearheaded by the Guanheng Group, represents a significant advancement in the agricultural distribution and catering industries. This initiative leverages the supply chain system of the agricultural wholesale market platform to extend the distribution industrial chain, thereby enhancing the value of products and services. The project's primary focus is on **innovation and improving the quality of student nutrition meals, ready-made dishes, urban canteens, and urban family catering.**

*Durafresh* has established a network of central kitchens, satellite kitchens, and cold chain logistics centers across key regions including Shanghai, Jiangsu, Zhejiang, and Anhui. These facilities collectively support the **daily catering needs of up to 500,000 people.** This year alone, the output value of three central kitchen companies under *Durafresh* reached RMB 350 million. In particular, the central kitchens in Shenyang and Binhai are pivotal in serving **160,000 primary and secondary school students across 200 schools, delivering 300,000 servings daily.** Additionally, these kitchens provide another **200,000 servings to government canteens, restaurants within enterprises and institutions, and social fresh food supermarkets.**

Collaboration is at the heart of *Durafresh's* operations. The company has established fixed cooperation models with wholesalers and their production bases, enabling an **"order agriculture" approach.** This method involves placing direct orders for essential vegetable varieties like tomatoes, cucumbers and potatoes. The entire process, from planting to storage, is closely monitored and controlled to ensure a consistent **supply of high-quality food materials.** One of the key advantages of the *Durafresh* project is its integration of the wholesale industrial chain with the supply chain. This integration allows for **centralized wholesale procurement and order agriculture,** which not only improves production efficiency but also offers significant price advantages. By transforming wholesale market merchants into part of its distribution supply chain system, *Durafresh* has created a more **tightly connected and resilient network.**

The *Durafresh* project focuses on several key areas, including **sourcing fresh ingredients to provide safe and nutritious student meals with tailored dietary plans.** It manages the entire supply chain, from scientific cultivation to the transformation of local agricultural products into clean, high-quality dishes. **Prefabricated dishes** are also a major focus, with a team of experts developing these products for distribution across various markets. Additionally, *Durafresh* operates green poultry farming bases to produce high-quality, antibiotic-free poultry. The company also upgrades and manages canteens for institutions, ensuring **modern and safe catering services.**

## Istanbul, Turkey, Eurasia & South West Asia

### The Istanbul Metropolitan Municipal Market

The Istanbul Metropolitan Municipal Market proves **Türkiye's** strategic positioning, fostering East to West trade collaboration. Anchored in the global network of the **World Union of Wholesale Markets**, Turkish markets are committed to leveraging these connections for the mutual benefit.

In **Türkiye**, there are **203 fruit and vegetable wholesale markets** providing employment for **9,864 individuals**. Istanbul alone hosts **358 district bazaars, employing 35,000 people**. While traditional retailers remain primary customers, the growing trend sees hypermarkets increasingly sourcing from wholesale markets. The Istanbul Metropolitan Municipal Market recognizes the need to elevate standards and enhance trade potential for national agricultural markets. To this end, the market committed in 2011 to a multifaceted approach:

1. **establishing a national association** under the Turkish Municipalities Union as a platform for collaboration and knowledge-sharing.
2. **exploring opportunities** to build stronger links with wholesale markets exhibiting **international best practices**.
3. **exploring the benefits of partnerships with the private sector** to introduce new models of development and market management.
4. **developing initiatives to address national logistics and packaging challenges**, promoting sustainability.
5. adopting the **WUWM Guide to Good Hygienic Practice** throughout **Türkiye**, ensuring compliance with both national and European Union hygiene and food safety regulations.
6. creating a Middle East/North Africa (MENA) working group within WUWM to facilitate the **exchange of information, experiences, and best practices**.
7. clarifying **agricultural production regulations** applicable to wholesale markets, eliminating barriers to the import and export of national produce.
8. initiating an extensive **awareness and educational programme**, targeting all stakeholders involved in the supply chain.

Through these commitments, the Istanbul Metropolitan Municipal Market is poised to enhance its role as a key player in the global food supply chain, promoting sustainability, collaboration, and innovation in the Turkish wholesale market landscape. In September 2021, the city of Istanbul published the **Istanbul Food Strategy Document** which has, among the many priorities, also the need to work on wholesale markets.

## Barcelona, Spain, Europe

**Mercabarna:** <https://www.mercabarna.es/>

*Mercabarna* is a **24-hour wholesale market** focused on providing fresh foods to citizens. It boasts **700 companies** engaged in marketing, processing, distribution, import, and export of fresh and frozen products, selling a staggering annually **2 million tons of food to around 10 million consumers** from Catalonia (Spain) and around the world. As one of Europe's major wholesale markets, *Mercabarna* **plays a crucial role in Barcelona's, Catalonia's, and Spain's economic development, fostering business opportunities and innovation.** The site includes the Wholesale Fruits and Vegetables Market, the Central Market for Fish, a wholesale market only dedicated to organic food – Biomarket - and the Flower market as well.

*Mercabarna* supports the local commerce and catering sector by offering agricultural, fishing, and proximity products. As a public company **founded in 1967**, it is primarily owned by *Barcelona Serveis Municipals*, *Mercasa*<sup>3</sup>, and the Barcelona Regional Council. Since 2002, *Mercabarna* has embraced an environmental policy, promoting sustainability with specific infrastructures and recycling practices. It also focuses on **reducing CO<sub>2</sub> emissions** through the use of **electric vehicles and clean energy sources.** *Mercabarna* is firmly committed to the fight against food waste. This goal result in new measures to further minimize the volume of food that is wasted in the daily activity of the market. Since 2002 *Mercabarna* has created a warehouse that serves as a collection, selection and distribution center for the food that is donated daily to **food banks.** Annually the market contributes with more than one million kilograms of fresh products. In 2014, *Mercabarna* put in place a scholarship programme to encourage the recruitment of people in unemployment situations and university graduates. Besides these scholarships, *Mercabarna* also promotes several **children's campaigns** where more than 12,000 children participate every year in these initiatives.

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3. Mercasa: <https://www.mercasa.es/>



## Milan, Italy, Europe

**Foody:** <https://www.sogemisp.it/>

Milan's wholesale markets, managed by the municipal company **SO.GE.M.I.**, include mainly the Fruit, Vegetable and Fish markets. They represent **one of the major players at a European level for the wholesale trade of fresh agro-food products**. They continuously ensure that wholesale prices are consistent with the current market and that local production is valorised along with ensuring the food safety of the products.

**Foody**, Milan fruit and vegetable wholesale market, is the **largest in Italy in terms of goods handling** and is characterised by a **high standard of quality** and the wide range of products available all year round, which can meet the needs of all types of customers.

Within the market operate **102 wholesalers** and **70 producers, who supply 1 million tons of food each year**.

Its location, at the center of Northern Italy and within the main international corridors, combined with the wide range and high quality of products, ensure **Milan's leadership in the supply and distribution of fruit and vegetables at national level but also on a European scale**.

**Exports account for over 300,000 tons of fruit and vegetables sold each year** by wholesalers, whereas on the import side, the market plays an important role also in the redistribution of fruit and vegetables from foreign countries in Italy, with 50% of the total fruit and vegetables marketed each year being imported.

Thanks to these figures, Foody represents the beating heart of the Milanese food system.

In order to achieve the objectives set by the Milan Food Policy, in particular related to the **reduction of food waste**, during the first lockdown in Spring 2020, the wholesale market participated in the **Food Aid System** developed by the Municipality of Milan, **contributing to the fruit and vegetables supply**, thus **supporting around 20,000 people in need every week**.

Moving from this first experience, **"Foody Zero Waste"** was born, an initiative designed by the Milan Food Policy with the objective of **introducing innovative ways of collecting and redistributing surplus fruit and vegetables at the Fruit and Vegetable Market**. Through the establishment of a partnership among actors active in the redistribution, it aims at strengthening expertise, **increasing the volumes of food recovered** and developing innovative solutions in the Milan Wholesale Food Market.

A further step towards the improvement of Milan food system will be achieved through the **renovation works** that the company will undertake with the end goal of **creating an agri-food hub**, attracting Italian and international companies and professionals in the agri-food chain.

Among the various renovations, part of the project will be devoted to developing **synergies between the wholesale market and Milano Ristorazione**, the 100% public agency for school canteens that runs the city's school meals programme.

These works move from the need of Milano Ristorazione to reorganise its spaces and productive capacity in a more efficient way, achieving economies of scale. Through these interventions, **different infrastructures connected to the agency will be moved within the area of the wholesale market.**

The central warehouse will be relocated, bringing it closer to the cooking centers (placing one of them within the market), thus significantly reducing the transport routes. Also, the headquarters will be moved in the same area, bringing together all the main infrastructure of the system.

These extension and redevelopment works will be particularly **meaningful both for Milano Ristorazione and SO.GE.MI.** the first will benefit of **bringing together in a single area several assets of its system** along with improved production capacity, greater resilience and better safety controls; the latter will take advantage of the **variety of services offered** in the area, **attracting different actors and creating synergies.**



## Paris, France, Europe

**Rungis:** <https://www.rungisinternational.com/>

Administered by Semmaris<sup>4</sup> since 1962, **Rungis is the largest wholesale market in the world**, focusing on the quality, quantity and diversity of products provided. Historically located in the heart of Paris under the name “Les Halles de Paris”, this international market has been based at Rungis since 1969. It is Europe’s leading fresh produce wholesale market, and is **divided into 5 sectors**: fruit and vegetables, meat products, seafood and freshwater products, dairy products and horticulture and decoration. It also offers a wide range of organic products and is committed to promoting the work of French producers.

The market comprises **234 hectares**, where 12,400 men and women work for 1,200 companies, supplying  $\frac{1}{4}$  of the French population with **over 150,000 products**. In 2022 alone, 3 million tonnes of goods, including 1,781,308 tonnes of food items, passed through *Rungis*, representing **a turnover of 10 billion euros**, with the fruit and vegetable sector accounting for the largest share. **Rungis market offers the world’s widest range of fresh produce in a single space**, and although 65% of the buyers are based in the Île-de-France region, it also supplies shops and restaurants in Europe and internationally. From a logistics point of view, *Rungis* market is a city within a city and has its own ecosystem of everyday services such as police station, pharmacy, banks, dry cleaners, training center (*Rungis Academie*), rail terminal, restaurants, and so on, as well as being a home to innovative projects like the “incubateur *Rungis&co*”. Semmaris aims at modernizing and renovating the market’s buildings with the **Rungis2035, a €1.8 billion investment plan**.

Since its creation, *Rungis International Market* has been committed to embodying four fundamental values: **excellence** (quality products and expertise from farm to fork), **responsibility** (promoting the general interest and ensuring quality control), **progress** (a visionary and planning approach to the trades represented), and **cooperation** (promoting human values and solidarity). Furthermore, it takes concrete actions to achieve sustainable development, in particular regarding **waste management and electricity sourcing**. For instance, the *Rungis* site offers a drop-off and sorting point for packaging to facilitate recycling, an on-site incinerator that supplies heat to market companies and surrounding towns, a food donation system for unsold products, and material recovery methods for the remaining waste.

Another regional project complementary to the *Rungis* market has now been developed, based in the north of Île-de-France: *Agoralim*. It consists of developing a market that will cover the entire food chain, from **agro-ecological production to product distribution and processing**, with the aim of initiating a new territorial dynamic and developing a local ecosystem. It is an ambitious project focused on food distribution and territorial development which will be developed throughout 10-15 years and which will address multiple issues of the food system.

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4. Semmaris: <https://www.rungisinternational.com/decouvrir/#la-semmaris-autorite-gestion-naire-du-marche-de-rungis>



## Tirana, Albania, Europe

**AgroPark:** <https://aida.gov.al/en/agropark-tirana-the-largest-public-agri-food-market-in-albania/>

Within the **European Project Food Trails<sup>5</sup>**, in the heart of Tirana, a new initiative is taking root, promising a fresher, healthier future for its residents. With a strong commitment **to promoting organic and local products while curbing food waste**, the municipality has unveiled its latest project: the **Agro Park**.

Within the peri-urban area of Farka, in the South-Eastern part of the city, **the Agro Park stands as a beacon of sustainability and community resilience**. Unlike any other, this agrifood market is not merely a marketplace; it's a testament to Tirana's dedication to **fostering healthier, more sustainable food systems**. At the heart of the *Agro Park* lies the idea to bridge the gap between local farmers and urban consumers. Here, farmers find a platform to showcase their organic harvests, while citizens gain access to fresh, locally-sourced produce.

However, the *Agro Park* is more than just a marketplace. It's a **hub of education and engagement**, where visitors can get involved in educational sessions and engaging events centered around sustainable diets and Albanian culinary heritage. From "healthy food days" open to all citizens, to collaborative efforts with renowned nutritionists, the *Agro Park* is sowing the seeds of knowledge, empowering young and elderly citizens to make informed choices about the food they consume.



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5. Food Trails is a four-year EU-funded Horizon 2020 project aiming to translate in Europe the Milan Urban Food Policy Pact's collective commitment to integrate urban food policies into measurable and long-term progress towards sustainable food systems. Each partner city runs a pilot project, a "Living Lab", a space for work, dialogue and collaboration to foster innovation, connect local key stakeholders, and collect evidence to support urban policy change in food. <https://food-trails.milanurbanfoodpolicypact.org/>

## Bogota, Colombia, South America

**Corabastos:** <https://corabastos.com.co/inicio/>

Spanning **42 hectares**, **vCorabastos** is a city within a city, serving as the epicenter of commerce for fresh produce, meats, seafood, and an array of other goods essential to Colombian cuisine. Emerging in the mid-20th century, *Corabastos* was **established in 1972**, replacing scattered markets to meet the demands of Bogotá's growing population. Today, it stands as **Colombia's largest market and one of South America's most important**, playing a pivotal role in the nation's food distribution network. The property of *Corabastos* is mixed: 47% of the shares belong to private companies and the remaining 53% is owned by State or other public institutions. Around 420,000 m<sup>2</sup> used as warehouses, restaurants, bars, offices, medical centers, a post office, banks and more, *Corabastos* **employs around 250,000 people and 12,000 vehicles pass through.**

It has approximately **6,000 merchants** under the legal status of tenants of the warehouses or premises. There are some large spaces of around 400 m<sup>2</sup> each which are dedicated to the storage and sorting of heavy goods, up to 100 tonnes, which are managed by large vehicles and are used in particular for potatoes, which constitute a significant part of Colombian local diet.

**Corabastos operates as a multifaceted entity within Bogotá's landscape.** First and foremost, it serves as **the lifeline of Bogotá's food supply**, catering for the needs of restaurants, grocery stores, and street vendors alike, ensuring access to fresh produce. Employment opportunities abound within *Corabastos*, ranging from farmers and truck drivers to wholesalers and retailers, thus bolstering both local and national economies. Moreover, *Corabastos* acts as **a pivot for price regulation**, facilitating fair and transparent transactions between producers and buyers, thereby ensuring access to affordable food for consumers across Bogotá.

Despite its significance, *Corabastos* faces challenges, including traffic congestion and waste management. However, the market has demonstrated resilience and adaptability, embracing **technology-driven solutions** and infrastructure improvements to address these issues. The plant generates around 100 tons of organic and inorganic waste per day; an amount that has decreased thanks to the plant of waste management that was put into operation since 2009 for the use of waste in the production of organic fertilizers and biogas. Additionally, around 15% of the total waste is used by people dedicated to **recycling** cardboard, wood and plastic. Moreover, traders within the market donated 2,741 tons of perishable food last year, with an average exceeding 2,000 tons over the past three years.

Beyond its economic ability, *Corabastos* preserves **Colombia's culinary heritage**, bridging the gap between urban consumers and rural producers. Through its continued operation, *Corabastos* ensures that **traditional foods and ingredients** remain integral to Colombia's rich gastronomic tapestry.

## Candelaria, Valle del Cauca, Colombia, South America

**CAVASA:** <https://cavasa.co/>

The *Cavasa Biofactory project*, led by *Central de Abastecimientos del Valle del Cauca S.A. (CAVASA)*, is an **innovative initiative** located in Candelaria, Valle del Cauca, near Cali. This project is rooted in the necessity of addressing the significant organic waste generated by CAVASA, which is the largest agricultural distribution center in the Southwest of Colombia. Every month, **CAVASA processes approximately 32,000 tons of agricultural products**, resulting in around 200 tons of organic waste. If not properly managed, this waste could lead to serious environmental issues, including the release of greenhouse gasses, the proliferation of pests, and other public health concerns.

The *Cavasa Biofactory project* aims to **transform the challenge of organic waste into an opportunity for sustainable development**. At its core, the project focuses on implementing advanced bioconversion technologies to convert organic waste into valuable bio-products. These efforts not only help manage waste, but also contribute to the broader goals of **environmental sustainability and economic development, aligning with global Sustainable Development Goals (SDGs)**.

One of the primary methods employed by the project is **traditional windrow composting**. In this process, organic waste is collected from CAVASA's commercial establishments, transported to the composting plant, and processed in piles or bins. The composting process is enhanced by using materials such as fine wood cisco, which helps manage moisture levels, reduce odors, and improve the quality of the compost. **This method transforms organic waste into high-quality compost**, which can be used to enrich soils and support sustainable agricultural practices. In addition to traditional composting, the *Cavasa Biofactory project* has incorporated **vermiculture**, a process that uses earthworms to convert organic waste into humus. Vermiculture was introduced at CAVASA's composting plant as an alternative method for processing organic waste, starting with a small pilot project in May 2023. The success of this pilot has led to the expansion of vermiculture activities, with earthworm populations increasing and the production of both solid and liquid humus on the rise. **This process not only contributes to waste reduction but also produces valuable organic fertilizers that can be used in agriculture.**

Another innovative component of the project is the use of **Black Soldier Fly larvae for bioconversion**. The larvae are known for their ability to consume large amounts of decomposing organic matter, reducing waste and simultaneously producing compost and animal protein. Since July 2023, CAVASA has incorporated this method into its operations, with the larvae being used to process organic waste and **generate high-quality compost**. The project aims to expand this aspect, with plans to increase the production

of Black Soldier Fly colonies and improve the infrastructure needed for large-scale bioconversion. The project also explores the potential of using efficient microorganisms (EM) to enhance the composting process. These microorganisms are capable of accelerating the breakdown of organic material, reducing the time required for composting, and minimizing odors and other negative effects. Although initial tests with EM have shown mixed results, **CAVASA plans to continue experimenting with this technology to optimize its composting processes further.**

The *Cavasa Biofactory project* is not just a waste management initiative; it is an **innovative approach to creating a sustainable bioeconomy.** By converting organic waste into valuable bio-products, the project aims to reduce environmental impact, support sustainable agricultural practices, and contribute to the economic development of the region. With an **estimated budget of 385,000 Euros**, the project represents a significant investment in the future of sustainable waste management and bio-product development in Colombia. This Biofactory could serve as a **model for similar initiatives both nationally and internationally, demonstrating how innovative approaches to waste management can drive positive environmental, economic, and social outcomes.**



## Lima, Peru, South America

**Gran Mercado Mayorista:** <https://www.emmsa.com.pe/>

The **Gran Mercado Mayorista de Lima**, managed by Empresa Municipal de Mercados S.A. (EMMSA), stands as a cornerstone of Lima's food distribution network. Spanning over 154,000 square meters, it serves as the **largest wholesale market in Peru's capital**, catering to the needs of retailers, restaurants, and vendors across the region. At the heart of this marketplace lies a diverse range of fresh produce, seafood, meats, and other essential goods sourced from local farmers and suppliers.

In March 2020, Peru declared a State of National Emergency due to the COVID-19 pandemic, resulting in mandatory social isolation measures. This led to economic disruptions, high unemployment rates, and increased poverty levels. To address these challenges, the Metropolitan Municipality of Lima launched the **Mercados Mayoristas Móviles (MMM)** initiative in the second semester of 2021. MMM introduced temporary mobile markets in secure locations to provide affordable access to essential food products and alleviate overcrowding in traditional markets. The initiative has benefited **over 42,000 people**, saving them an average of € 3.02 per week and facilitating the sale of **over 700 tons of products**. The success of MMM is attributed to coordination with local municipalities to ensure competitive prices. It supports both the general public and traders from the *Gran Mercado Mayorista de Lima* and local producers, shortening the marketing chain and boosting the local economy.

Approximately 60% of MMM participants are women, emphasizing **gender equality**. The initiative also addresses environmental concerns by managing waste and minimizing contamination. The Metropolitan Municipality of Lima funds the programme using its own resources, and transportation costs are covered by traders or producers. MMM represents an innovative approach to economic and food security challenges. It provides affordable access to essential food products, supports local businesses, empowers women entrepreneurs, and contributes to waste management and environmental sustainability. This initiative demonstrates the municipality's commitment to its **residents' well-being during times of crisis**.



# Conclusions

This report highlights that wholesale markets can serve as **vital infrastructure for fostering sustainability, food security, economic development, and community well-being in urban areas**. However, wholesale markets, although fundamental in the food supply chain, often lack the attention they deserve in food policy discussions. While local markets receive acclaim for sustainability, **wholesale markets play an equally crucial role in ensuring widespread food access**. These markets serve as **pivotal hubs for bulk food transactions, linking producers, distributors, and retailers**. Despite their behind-the-scenes importance, limited information and recognition hinder their role in **shaping comprehensive food policies**.

Besides their evident role in **improving the food supply and distribution of a city**, the report shows how wholesale food markets are **interconnected through multiple fields of action** that collectively enhance the food system. **These markets act as crucial intermediaries between producers and consumers, ensuring food security, price stability, and fair trading practices**. Their effective **governance**, often involving regional and national governments, can significantly improve sustainable diets and nutrition in cities by partnering with school canteens and other city infrastructures.

Wholesale markets also **promote the selling and production of high-quality food**, particularly organically grown and locally sourced products, by concentrating market activities in one location. They manage food stocks through storage and distribution, which helps balance supply and demand and contributes to price stabilization. During emergencies, these markets serve as strategic resources by housing and distributing food stocks to affected regions. **Sustainable transportation** is another critical



area, with wholesale markets promoting both local food consumption and innovations in last-mile transportation and long-distance imports to reduce carbon emissions and improve efficiency. Additionally, wholesale markets play a vital role in **reducing food losses and waste** by efficiently connecting producers and buyers, minimizing surpluses, and reducing post-harvest losses through rapid market access.

**Recognizing their significance should be a priority in local food policies. Policymakers should prioritize the modernization and sustainability of wholesale markets,** ensuring efficiency in the movement of food from source to consumer. This approach not only reduces waste but also supports the economic well-being of stakeholders. **Including wholesale markets into the forefront of food policy discourse permits a more thorough and holistic approach to food security and sustainability.** Emphasizing their role ensures that the advantages of a well-functioning wholesale market extend beyond economic considerations to encompass social and environmental dimensions. Consequently, **by championing the importance of wholesale markets, policymakers can actively contribute to the development of a food supply chain that responds to the needs of consumers and businesses alike, nurturing a more resilient, efficient, and sustainable food system.**



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