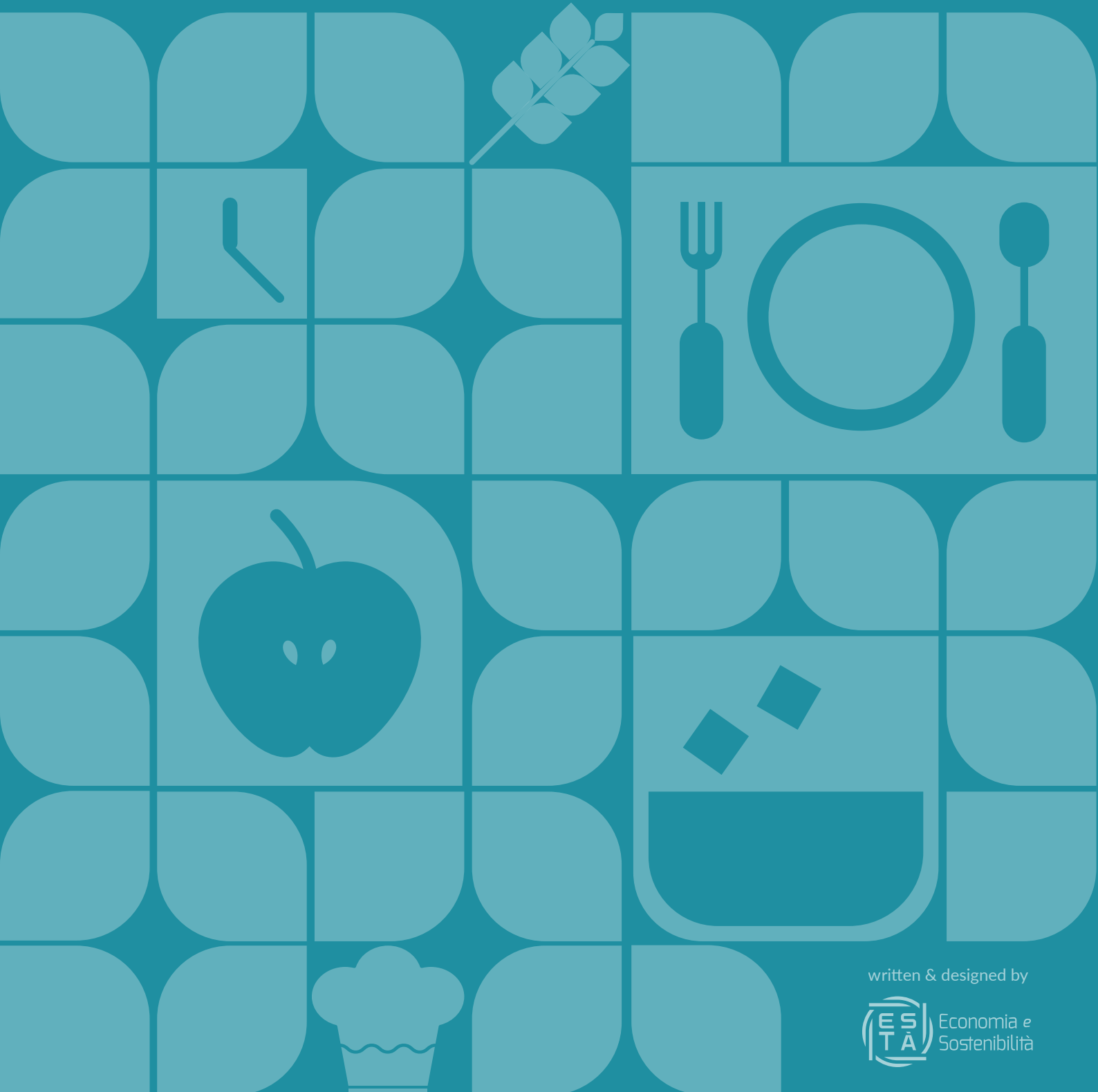


SCHOOL MEALS

the transformative potential of urban food policies



written & designed by

This Report was funded by the Italian Agency for Development Cooperation (AICS) under the Agreement among AICS and the City of Milan to strengthen the Milan Urban Food Policy Pact



Municipality of Milan

Anna Scavuzzo, *Vice Mayor of Milan*
Beatrice Arcari, *Director of Education Department*
Andrea Magarini, *Director of Food Policy Department*
Filippo Gavazzeni, *Head of the MUFPP Secretariat*
Cristina Sossan, *SchoolFood4Change Project Manager*
Serena Duraccio, *MUFPP Secretariat Officer*
Chiara Mandelli, *Food Policy Officer*
Elisa Porreca, *Food Policy Officer*
www.milanurbanfoodpolicypact.org



With the contribution of

Italian Agency for Development Cooperation



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

Date of publication: February 2024

Citation: MUFPP (2024), SCHOOL MEALS the transformative potential of urban food policies

Photo credits: Unsplash.com, the cities of Addis Ababa, Bangkok, Berlin, Milan, Nairobi, Sao Paulo, Seoul

ISBN 9791281285071



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What is the MUFPP

Milan Urban Food Policy Pact

The Milan Urban Food Policy Pact is the **main legacy** 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 Pact’s 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.

Governance and membership

To date, the Pact gathers **more than 280 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.

Why focusing on school meals programmes

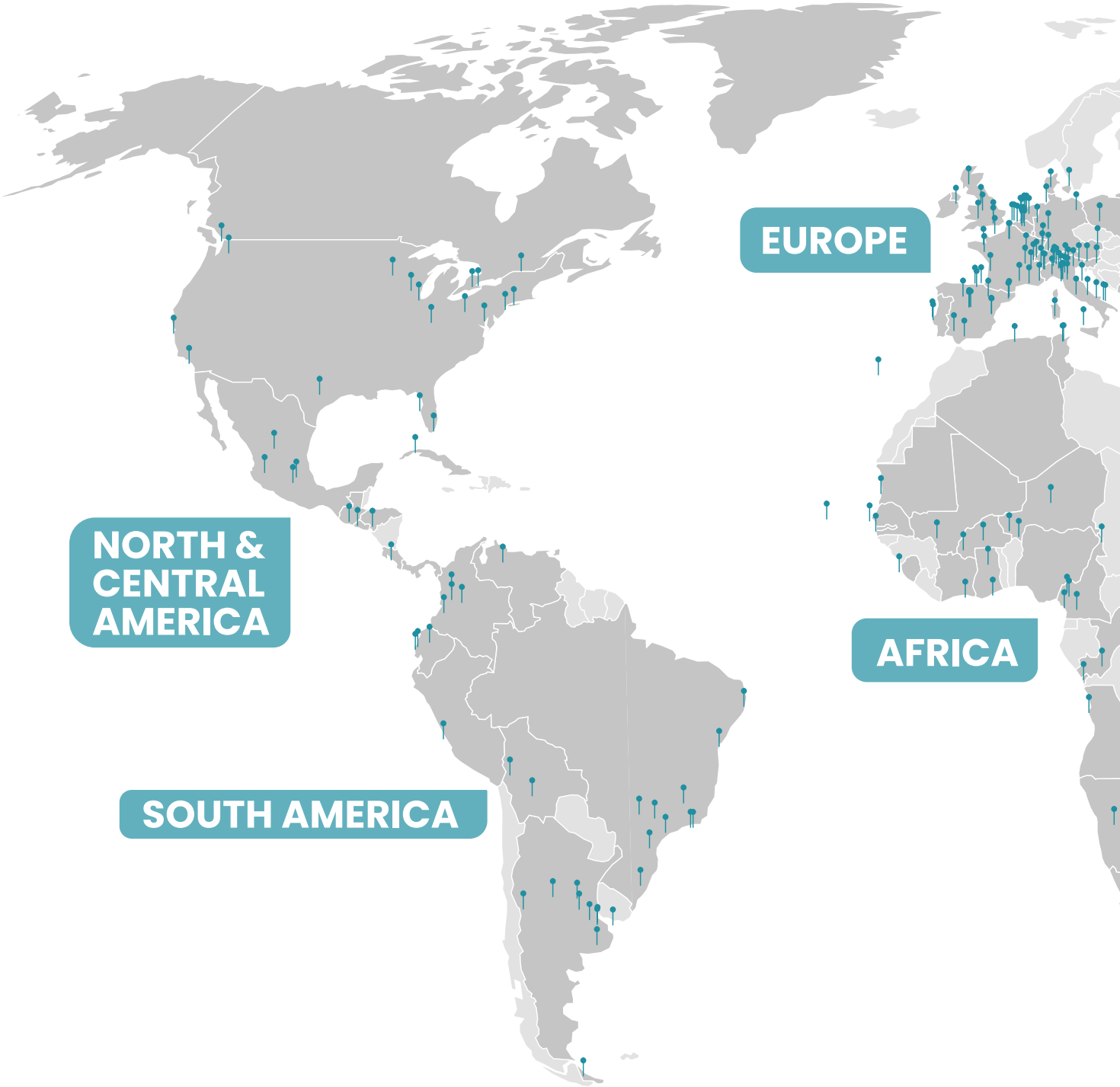
School Meals Programmes are a powerful driver of urban food policies through which cities can achieve **multiple cascading objectives**: promoting sustainable food consumption for children and facilitating the shift to a healthy and sustainable diet; fighting against food poverty; working on health prevention and healthy food habits; strengthening rural-urban linkages; raising awareness among children on food waste.

These objectives are at the core of the Milan Urban Food Policy Pact. Within the Framework for Action there is a whole category on “**Sustainable Diets & Nutrition**” which is primarily linked to school meals. Many cities are also working on this topic under other relevant categories, such as “**Food Production**” and “**Social & Economic Equity**”. What is more, the MUFPP Monitoring Framework developed with FAO and RUAFA, has devoted indicators on school meals that supports cities in assessing and monitoring their policies. Through the Milan Pact Awards (MPA) it's possible to understand the focus of MUFPP cities along with their challenges and learning needs. “**Sustainable diets & Nutrition**” is the category with the highest number of practices ever submitted, clearly showcasing that this is a key priority in the mayors' political agenda. As said, school meals related policies have been submitted also under other MUFPP categories, demonstrating a wealth of approaches and perspectives to this issue.

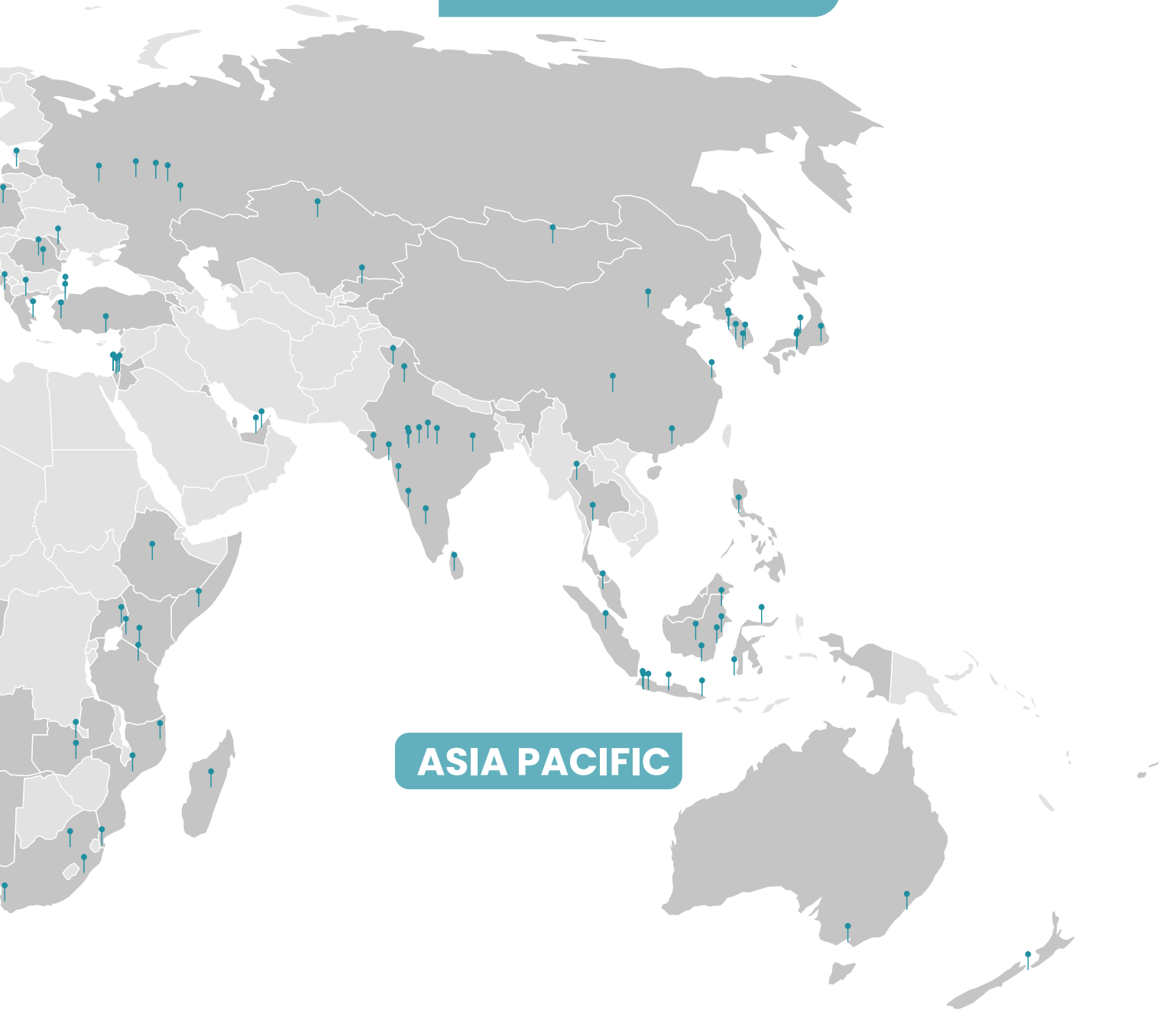
It is foreseen that by 2050 70% of the global population will live in cities. Mayors will be even more at the forefront to provide services to respond to citizens' needs. School meals are a **strategic infrastructure of the urban food system** just like the wholesale market, agriculture land, waste segregation system. Their synergetic management generates positive impacts on the wealth of citizens in terms of social protection, education, gender equality and health. School canteens are often managed by cities that are responsible for providing this service which might be financed, totally or partially, by the municipal budget. Furthermore, frequently national governments adopt **framework laws** or **guidelines** and transfer their implementation to cities that must set up and manage the service. Indeed, the relationship between national governments and cities is often based on a mutual exchange. On one hand, **cities represent the entry point** for the **concrete and efficient implementation of national legislation**; on the other, only through the knowledge that cities hold of citizens' needs, they are able to **provide effective and powerful support not only in the implementation** but also in the **design of these policies**. MUFPP Mayors are asking for support to create or improve the school canteen services in their cities. Out of the 133 MUFPP cities that participated in the MPA 2022, 100 reported a high interest in strengthening their practices in the “Sustainable Diets & Nutrition” category with a clear focus on enhancing the school canteens system or designing and implementing pilot projects for its establishment.

MUFPP Signatory Cities

280 CITIES in
84 COUNTRIES



EURASIA & SOUTH WEST ASIA



ASIA PACIFIC

School canteens for healthy, inclusive, and sustainable food systems





1 Challenges and transformative power of school meals

School meals hold significant potential for urban food policies. They offer a promising arena for pursuing **several objectives** by addressing a particular aspect of the food system: fostering sustainable dietary practices among children and promoting the transition to a healthy and sustainable diet. Additionally, they can contribute to combating food poverty, advancing preventive healthcare measures, and nurturing healthy eating habits. Moreover, they can play a significant role in strengthening the connections between rural and urban areas and promoting awareness to children about food waste.

This crucial significance becomes evident through the endorsement of **8 recommended actions** within the MUFPP Framework for Action, accompanied by **13 corresponding indicators**. Among the 133 cities submitting practices to the Milan Pact Awards 2022, 65% stated to provide school meals in their communities. Although each city provides a school meal service specific for their urban area, they all share similar challenges and potentials.

Challenges:

- 1. Nutritional quality and budget:** one of the foremost challenges is combining nutritious school meals with an affordable price. School meals programmes often struggle with budget constraints, making it difficult to source **fresh, high-quality ingredients**. This can result in reliance on processed foods that may be convenient but less nutritious.
- 2. Food insecurity:** many urban areas face different levels of food insecurity, according to the context. School meals programmes have to address this issue by providing **meals to students who may not have access** to consistent nutrition at home.
- 3. Cultural diversity:** urban populations are often ethnically and culturally diverse. School meals programmes need to **respect and accommodate** dietary preferences and restrictions stemming from various cultural backgrounds.
- 4. Infrastructures:** finding the necessary resources to build or renew the school meals system infrastructure and technologies can be a challenging task, especially considering that huge yet sustainable investments are needed.

Potentials:

- 1. Health and nutrition education:** school meals programmes can be an **educational tool** for teaching students about healthy eating habits. By exposing children to diverse, nutritious foods, to eating as a sharing and convivial moment, these programmes can help instil lifelong dietary knowledge.
- 2. Food procurement:** urban areas can leverage their proximity to local farms and markets to source fresh, seasonal produce, **supporting local agriculture** and reducing the carbon footprint of school meals.
- 3. Community engagement:** school meals programmes can serve as a hub for **community engagement and collaboration** among supply chain actors. Involving parents, local farmers, local chefs, public officers and civil society organisations can foster a sense of ownership and create a more inclusive food system.
- 4. Equity and inclusion:** well-designed school meals policies can help bridge the gap in **food access**, ensuring that all students, regardless of their socio-economic status, have access to nutritious meals that support their learning and development.
- 5. Food policy development:** school meals programmes can become catalysts for broader food system transformation. By showcasing the benefits of nutritious school meals for students, they can **advocate for improved food policies** at city or regional level.



2 School canteens in the MUFPP tools

The MUFPP 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 shown in the graph, the school meals topic is integrated in different MUFPP categories, therefore addressing several SDGs. The most prevalent MUFPP category is Sustainable Diets & Nutrition, which is strongly related to **SDG 2. “Zero Hunger”** but also to **SDG 1. “No poverty”** and **SDG 12. “Responsible Consumption and Production”**. This is because the topic impacts not only consumption but also supply chain and social issues.

Relevant MUFPP recommended actions

- 8** **Action 8.** Address non-communicable diseases associated with poor diets and obesity, giving specific attention where appropriate to reducing intake of sugar, salt, trans fats, meat and dairy products and increasing consumption of fruits and vegetables and non-processed foods.
- 9** **Action 9.** Develop sustainable dietary guidelines, to inform consumers, city planners (in particular for public food procurement), food service providers, retailers, producers and processors, and promote communication and training campaigns.
- 10** **Action 10.** Adapt standard and regulations to make sustainable diets and safe drinking water accessible, e in public sector facilities such as hospitals, health and childcare facilities, workplaces, universities, schools, food and catering services, municipal offices and prisons, and to the extent possible, in private sector retail and wholesale food distribution and markets.
- 11** **Action 11.** Explore regulatory and voluntary instruments to promote sustainable diets involving private and public companies as appropriate, using marketing, publicity and labelling policies; and economic incentives or disincentives; streamline regulations regarding the marketing of food and non-alcoholic beverages to children in accordance with WHO recommendations.

- 12** **Action 12.** Encourage joint action by health and food sectors, to implement integrated people-centred strategies for healthy lifestyles and social inclusion.
- 13** **Action 13.** Invest in and commit to achieving universal access to safe drinking water and adequate sanitation.
- 15** **Action 15.** Re-orientate school meals programmes and other institutional food services to provide food that is healthy, local and regionally sourced, seasonal and sustainably produced.
- 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 realise the right to food for all.

Linked to these actions there are several MUFPP indicators that, together with SDGs target, can be very helpful for city officials and policymakers to create impact at local level.

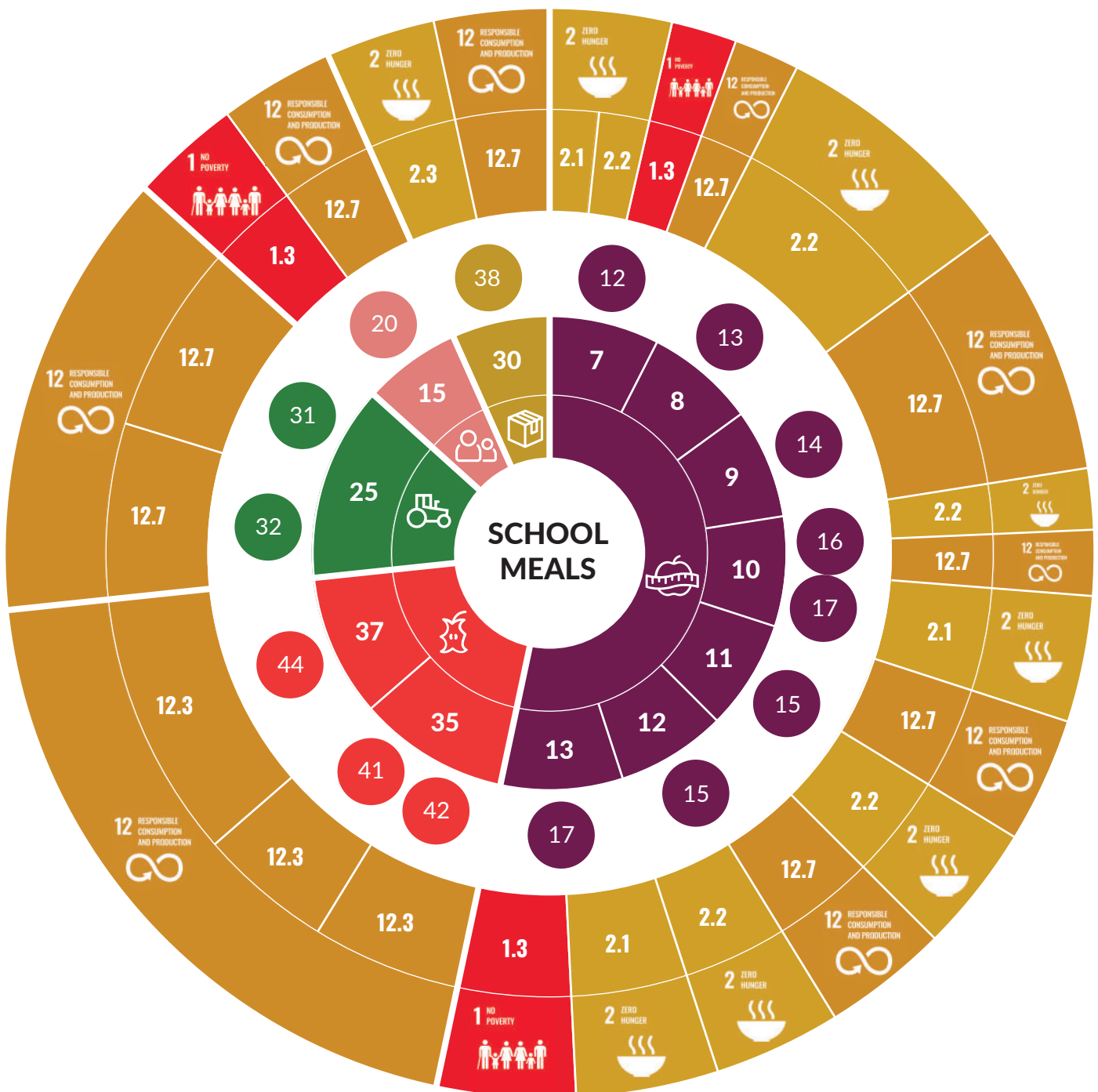
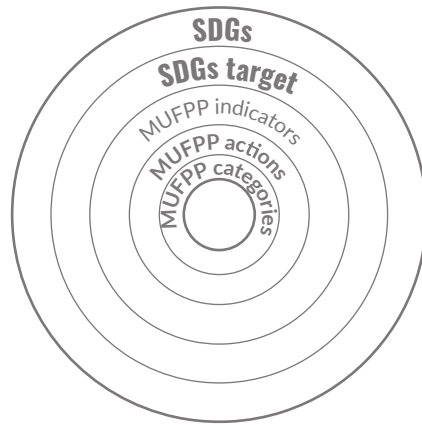
MUFPP Indicators

- 12 Prevalence of stunting for children under 5 years
- 13 Prevalence of overweight or obesity among adults, youth and children
- 14 Number of city-led or supported activities to promote sustainable diets
- 15 Existence of policies/programmes that address sugar, salt and fat consumption in relation to specific target groups (e.g general public, in hospitals and schools)
- 16 Presence of programmes/policies that promote the availability of nutritious and diversified foods in public facilities
- 17 Percentage of population with access to safe drinking water and adequate sanitation
- 20 Percentage of children and youth (under 18 years of age) benefitting from school meals programmes
- 31 Number of municipal food processing and distribution infrastructure 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
- 38 Proportion of food procurement expenditure by public institutions on food from sustainable, ethical sources and shorter (local/regional supply chains
- 41 Total annual volume of food losses and waste
- 42 Annual number of events and campaigns aimed at decreasing food loss and waste
- 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.



3 Infrastructure of the school meals service

The infrastructure needed for a school meals service can vary depending on the specific **model and scale of the programme**. The specific infrastructure requirements will depend on factors like the size of the school meals programme, the level of automation and technology used, and the available budget. Regardless of the model, safety, hygiene, and compliance with food regulations are paramount in the school meals system infrastructure.

Kitchen Facilities: depending on the model (e.g., on-site school kitchens, centralised kitchens, or a mixed model), kitchen facilities are a **fundamental requirement**. These facilities should be equipped with cooking devices, food preparation areas, storage spaces, and sanitation facilities. Adequate food storage areas, including refrigerators and freezers, are necessary to store perishable and non-perishable food items. Proper temperature control is crucial to food safety. Kitchen equipment such as ovens, stovetops, grills, food processors, and utensils are needed for meal preparation. The type and scale of equipment may vary depending on the menu and the number of students served. Proper sanitation facilities are critical for **food safety and hygiene** since compliance with health and safety regulations is essential. Also, digital infrastructure for menu planning, inventory management, and meal tracking can improve the efficiency of school meals systems. This may include software to plan menus that meet nutritional requirements and track food inventory in order to **prevent food waste**.

Transportation and Delivery: in models where meals are prepared centrally and, in a second phase, delivered to schools, transportation infrastructure is required. This includes delivery vehicles equipped with **temperature control** to ensure food safety during transit. An important component to manage sustainable school food delivery is to provide meals through **sustainable transportation**.

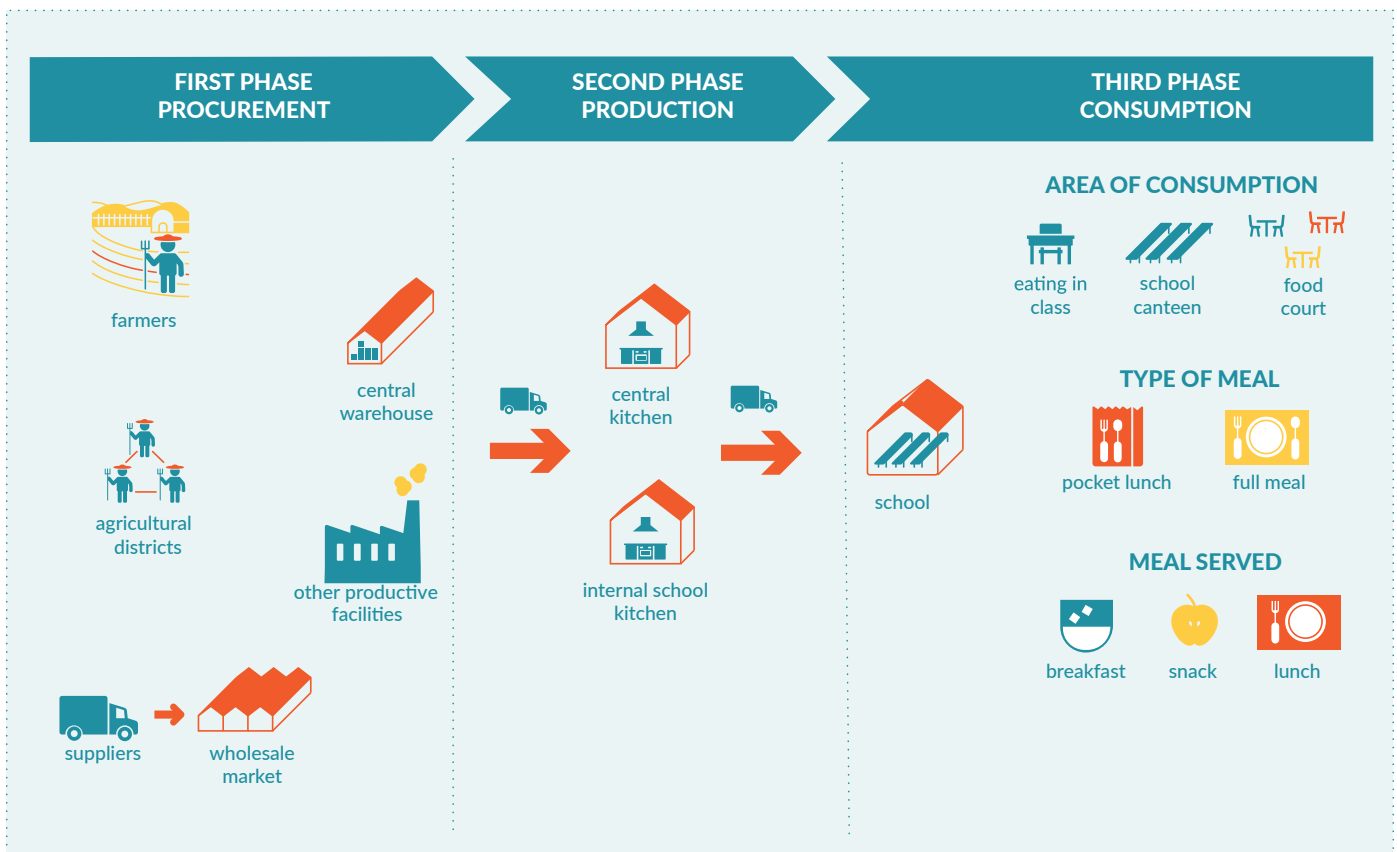
Dining Areas (Canteens or Cafeterias): dining areas where students can eat their meals are essential as they are a **social space for education**. These spaces should be designed to accommodate the number of students served and should provide a comfortable and hygienic environment for eating. Proper **waste disposal and recycling infrastructure** should be in place to manage food waste, packaging materials, and other waste generated by the school meals programme. These can be located within the dining areas and serve as educational tools to convey food education messages.



The infographic outlines the main phases of a school meal programme. The most relevant stages include as the first the food procurement, which may involve farmers, associations that gather agri businesses such as agricultural districts, and suppliers connected to wholesale markets.

The second phase concerns the production of meals, which may take place in internal school kitchens or in dedicated facilities, such as central kitchens that produce a higher number of meals. Food produced is then distributed to the canteens served thanks to different logistic models.

The third phase covers the consumption. The type of meals served across different programmes around the world varies depending on different factors. In some, for example, not only the **lunch** but also the **breakfast** is provided during school hours, whereas in most cases the service covers only the lunch. **Snack** provision is also foreseen sometimes as a complementary meal, or in some others as the main one served. Another distinction worth mentioning is that some schools provide a **full meal**, but **pocket lunch** is also often an option.



Key school meals infrastructure

Kitchens inside schools (ca. 100-3,000 meals/day): this model involves establishing **fully equipped kitchens** within each school, for the preparation of meals on-site. Schools with their own kitchens have the ability to prepare meals from scratch, ensuring that students receive **freshly cooked food**. This model can establish a kind of flexibility in menu planning, accommodating dietary preferences and cultural variations. Also, schools with on-site kitchens can involve students, chefs, staff, and parents in meal preparation or in raising awareness on good food, fostering **a sense of community and co-responsibility**.

The Municipality of **Rome** (Italy), for example, has 1,082 internal kitchens that serve about 90% of public schools of the city. However, establishing and maintaining kitchens within schools can be expensive and may not be feasible for all educational institutions, particularly in densely populated urban areas with limited space. This example could generate many inefficiencies in the production and logistics system, as the kitchen hardly ever has a centralised warehouse, and the limited storage capacity can lead to production issues and food waste. At the same time, having an internal kitchen **reduces delivery time**, thus having an impact on the quality of meals served. In this case internal kitchens are capable to prepare up to 1,000 meals/day.

When the production capacity of an internal kitchen exceeds the need of its own school, the facility can serve as a **neighbourhood kitchen**, preparing meals for **multiple schools within the surrounding area**. These kitchen centres work as hubs for meal production and distribution benefiting from economies of scale, **reducing food production costs and enhancing food safety** through efficient food safety control systems. Meal quality and consistency can also be more easily controlled with a centralised approach, ensuring that all schools receive the same quality level of service. However, the challenge in this case lies in transportation logistics to promptly deliver meals to various schools. It also may not provide the same level of community engagement as on-site school kitchens.

Central Kitchens (ca. 3,000-15,000 meals/day): the centralised kitchen centres are similar to the neighbourhood centres, serving public meals for multiple schools in a specific area, but they are able to provide **more meals per day**. This kind of food system infrastructure can increase the number of children targeted by the school meals programme and play a role in preparing meals in case of crisis. Central kitchens are often involved in both school meals programmes and for welfare service (rest homes). The city of **Milan** (Italy) in its Sammartini Central Kitchen, built in 2011 through the conversion of the former Municipal Wholesale Fish Market, now provides 12,000 meals per day to 68 canteens, is equipped with 1,000 square metres of cold storage and processes six tons of food raw materials. The city of **Nairobi** (Kenya) designed its institutional structure of the school meals programme in August 2022 and financed the construction of 10

central kitchens preparing 165,000 meals a day for 225 primary and Early Childhood schools. The construction of the kitchens required a budget of \$8.6M and will employ 3,500 people. The ASEAN Health Cluster I within its Work Programme 2021-2025 has identified under the Health Priority 7 - Promotion of Good Nutrition and Healthy Diet a specific project activity that has the aim of establishing a Framework on Healthy Central Kitchen for childcare centres and kindergartens in ASEAN to be used as reference in national strategies and programmes.

Central Warehouse: an element for **innovative** school meals programmes are centralised logistics platforms. Present in a few cities, this facility consists of centralised warehouses where suppliers can deliver their raw materials, and where control units are located to check and analyse food safety standards. Another option (without central warehouses) involves **delivery to each kitchen**, making the quality control system gates almost limited. The city of **Seoul** (South Korea) established two central warehouses (East and West of the city) within their wholesale markets, and has also managed to open up to procurement by wholesalers and small farmers producers. It has also created a large analysis laboratory to sample the foodstuffs purchased and therefore guarantee a **high safety standard** of its school meals.

Combined approach: in many cities, it is possible to observe a combination of on-site and neighbourhood kitchens, central kitchens and central warehouse. Within the same urban area, the presence of different infrastructures allows school meals programmes to be **more resilient** and able to organise coherent strategies of public service efficiency. This hybrid approach offers a balance between freshness and efficiency and can address the challenges of each model, specialising specific infrastructures to each target of the service (kindergartens, pre-schools, primary schools, high-schools). The combined model is the **prevailing one in almost all the cities of the MUFPP**, which over time have created specific solutions by combining widespread and centralised infrastructures, renovating old kitchens and building new ones, attracting investments and exploiting opportunities.



4 Models of school meals programmes

When dealing with local school meals programmes, it is important to understand the management and productive models a municipality can implement, along with the responsibilities of each actor involved in the process. In particular, this section dives into the different models, based on **two key factors: on one side the type of governance of the school meals programme, whether it is centralised or decentralised, on the other the management system, direct or outsourced.**

Centralised models

1. **Service directly provided by the municipality:** under this model, the local government takes direct control of managing the school meals programme for all schools within its jurisdiction with chefs that are municipal employees. This **centralised approach** often involves the municipality handling food procurement, meal preparation, and distribution, aiming for economies of scale and uniformity in meal quality and access. The city of **Porto Alegre** (Brazil) manages the service directly with its own employees and through kitchens in each school, covering 56% from the municipal budget, while 44% is covered by national Government funds.
2. **Service provided by an in-house company:** some cities choose to establish in-house food service departments or companies to manage school lunches. These entities operate under the authority of the municipality but function as separate bodies dedicated to providing school meals. This model allows for greater **control and accountability** over meal quality and cost management. It is the case of **Milan** (Italy) where school meals are provided by Milano Ristorazione, a municipal agency for school canteens founded in 2000 which serves 77,000 school meals per day. **Addis Ababa** (Ethiopia) funded its municipal school meals agency in 2019 with the goal of starting the programme and ensuring healthy meals for half a million students in 255 elementary schools, while creating jobs for over 10,000 women. The city of **Tirana** (Albania) established a municipal agency to manage 200 kindergartens also providing school meals, with targeted menus developed by a nutritionist.
3. **Service outsourced by the municipality to a private company:** in this model, the municipality contracts with **external private catering companies** through a competitive bidding process to manage the school meals programme, with a unitary lot or divided on the basis of city areas. These private companies are responsible for the main aspects of the programme, from menu planning to meal preparation and food delivery, which changes according to the contract, while the Municipality takes over



the role of supervision and guidance. This approach can bring in **specialised expertise and cost-efficiency** but requires effective oversight. Thanks to this type of management, the city of **São Paulo** (Brazil) provides healthy school meals to around 1 million students with 3,700 school kitchens, while reducing the environmental impact and tackling food waste. In the **Maputo** (Mozambique) feasibility study for the school meals programme in 2018 this approach was proposed as the easiest to start from scratch.

Decentralised models

1. **Service outsourced by lower levels of government to private companies:** some cities delegate school meals management to lower levels of government such as school districts or neighbourhoods. This allows for **tailoring programs** to the unique needs and preferences of specific communities within a city. It is the case of the city of **London** (United Kingdom) which has decided to extend Free School Meals to all primary school children in the capital for the 2023/2024 academic year, helping families struggling with the cost-of-living crisis, through a borough management model. Or the case of **Rome** (Italy) where, although within a single framework for the service at the city level, each district has its own provider and is equipped with its own control unit.

2. **Service outsourced by each school to private companies:** in this model, each school within a district or municipality manages its own school lunch programme independently. Schools have the **autonomy to make decisions** about menu planning, food sourcing, meal preparation, and service delivery. This approach allows for flexibility but may result in variations in the quality and consistency of school meals across schools. In the city of **Seberang Perai** (Malaysia) each school principal organises its own school meals system based on breakfast and lunch, through biennial tenders to private catering companies. The federal state contributes to a share of the cost, while students purchase meals directly at their own discretion, paying as if they were in a restaurant. The same happens in **Valencia** (Spain) where the school meals programme for pre-schools and primary schools is an autonomous decision of each principal that selects its provider, decides the menus and discusses the matter with parents.

Hybrid models

Hybrid models combine different elements of the existing models. A common example is the centralised food procurement made by the municipality with a degree of autonomy granted to individual schools. While the municipality ensures standardised procurement and nutritional standards, schools have some **flexibility in the menu planning and service**. This approach strikes a balance between uniformity and local preferences and it is used all over the world: from **Bangkok** (Thailand) to **Copenhagen** (Denmark). Bangkok Metropolitan Administration, through its Education Department, is providing free breakfast and lunch to around 250,000 students from 437 schools. In the Copenhagen “Food schools” the food procurement is centralised within the municipality and it is built upon a market analysis to identify and enhance local offers and production.

Building a school meals programme

Building a school meals programme from scratch can be a complex undertaking, and the approach chosen can significantly impact its success. Another way to classify school meals programmes is to take into account the process that leads to the establishment of such system. One can opt for either a **top-down** or a **bottom-up approach**, or a combination of both, depending on the specific context and resources available. The choice of approach depends on the circumstances.

A top-down approach involves national governments or large organisations driving the program's initiation and management. In contrast, a bottom-up approach empowers local communities and schools to take the lead in planning and implementing the program. Often, a combination of both approaches, with national guidance and local involvement, can be the most effective way to build a sustainable school meals programme.

One example of a top-down approach is **Rwanda's Innovative School Meals Program**. In 2019, the President and the Prime Minister called for a complete overhaul and ambitious scaling-up of the national school meals programme, making it a national priority. As a proof to its commitment, Rwanda was one of the first countries to join the School Meals Coalition and pledged to achieve universal school meals coverage for basic education. In 2021, Rwanda's Minister of Education announced further commitments, increasing the budget from \$8 million in 2020 to \$33 million in 2021. The progress has been impressive, with Rwanda expanding school meals coverage from 660,000 to 3.8 million students in 2022. Moreover, the budget saw another increase, reaching \$74 million. **Addis Ababa School Feeding Program**, on the other hand, is the perfect example of bottom-up approach. This program prioritises school-age children, aiming to alleviate hunger, enhance meal quality with fresh and balanced options, and reduce financial burdens on families. Currently operating in 255 institutes, it serves 452,547 students and has generated 10,120 jobs.

The initiative provides two daily meals, funded by the city administration and supported by NGOs, and promotes school horticulture with circular approach in mind. Beyond its primary nutrition objectives, the programme has had a profound impact on education. Enrolment rates increased by 15%, and the dropout rates decreased by 12%. Schools, as centres of human and social capital development, play a vital role in achieving these outcomes.

Parents also have a crucial role as well in various cities around the world. In Addis Ababa, mothers actively engage by taking on the responsibility of cooking the meals themselves while, in **Barcelona**, some schools are operated by parents' associations. **Milan** and **Seoul** have established canteen commissions, allowing parents to collaborate with educational institutions in designing menus and overseeing meal quality, further emphasising the role parents play in shaping the public school meals system.



5 Responsibilities of different levels of government in service management

The regulatory and economic dimensions of school meals programmes involve a combination of legal frameworks, guidelines, financial contributions, and subsidy mechanisms to ensure that students receive nutritious and affordable meals. The specific responsibilities of different levels of government in managing these dimensions depend on the **policies and priorities** of the respective regions or countries. It is often influenced by factors such as the overall wealth of the nation, the prevalence of poverty, and national governments' commitment to ensuring food security and nutrition for students also at international level, for example through commitments made within the School Meals Coalition.

Regulatory dimensions can be dealt both at national and local level. At the national level, governments may enact laws or establish programs that set the legal framework for school lunch systems. These laws can mandate the provision of school meals and outline specific nutritional guidelines that must be met. Some countries implement a **national refectory program**, which involves the establishment and operation of centralised kitchens or canteens to provide meals to schools across the country. For instance, in July 2022, **Jordan's Ministry of Education** launched the 2021-2025 National School Meals Strategy, a comprehensive programme involving various government ministries, WFP, and other organisations. The strategy aims to enhance the nutrition, education, and lifelong healthy eating habits of school-age children, particularly in vulnerable areas. Similarly, **El Salvador's government** launched the Healthy and Sustainable School Meals Strategy in February 2021 with a collaboration between the Ministry of Education, the Office of the First Lady, and the Cabinet, with FAO's technical assistance. The strategy aims to provide nutritious school snacks to public school students, promote local food procurement, enhance nutrition education, and integrate it into the national curriculum.

National or local governments can also provide **guidelines for menu development** in school lunch programmes. These guidelines may specify nutritional criteria, portion sizes, and recommended food groups to ensure that school meals meet established health standards. Menu guidelines can also address dietary restrictions, allergen management, and cultural considerations to accommodate the diverse needs of students. It is the case of **Italy** that in 2010 developed the National Standard for School Meals and the same happened in **Denmark** in 2012. These guidelines can also be developed by international organisations, such as **WHO** which published the Nutrition Standards for School Meals Standard in 2017.

Economic dimension can include the **contribution by users, the municipalities and national governments**. In some school meals systems, students or their families are expected to contribute financially to the cost of school meals. This contribution can vary widely, from full payment to partial subsidies based on income levels. The goal of user contributions is to share the financial burden of the programme and promote a sense of responsibility among students and their families.

In certain areas, municipalities may take on the full financial responsibility for funding school lunch programmes. This can include covering the cost of food, kitchen facilities, staff salaries, and overhead expenses. This model aims to ensure that all students have access to **nutritious meals**, regardless of their families' economic circumstances. It may be more prevalent in areas with higher or lower levels of public funding but this model is very common among MUFPP signatory cities: cases come from **London, Seoul, Berlin, Addis Ababa, Jabalpur, Porto Alegre**.

Finally, many school meals systems operate through a combination of funding sources, with both municipalities and the national government providing financial support. The municipality may cover a portion of the cost, while the national government may contribute through grants, subsidies, or supplementary programs. These **joint efforts** help maintain the affordability and accessibility of school meals. **Bangkok and Guadalajara** are an example of this system. Bangkok Metropolitan Administration, through its Education Department, is providing free breakfast and lunch to around 250,000 students from 437 schools.



6 Quality dimension

Quality in school meal programmes is essential because it not only supports children's physical and cognitive development but also fosters healthy habits, addresses food insecurity, promotes equity, and aligns with broader social and environmental goals.

A virtuous example comes from the city of **Mouans-Sartoux** (France) that since 2012 has served 100% organic foods in the canteens of nurseries, preschools, and primary schools, representing more than 1,200 children. Due to lack of local supply, in 2010 a municipal agricultural enterprise was created to produce organic vegetables for canteens. The city of **Bari** (Italy) through an agreement with Coldiretti, the major Italian association representing small and local producers, has been able to ensure 90% organic products for fruit, vegetables, pulses, cereals and grains, 50% for dairy products, meat and fish and 100% for eggs, yoghurt and fruit juices. Also **Montpellier** with *Ma cantine autrement* promotes sustainable nutrition by integrating local and organic products, offering eco-citizen meals, training staff in nutritional balance, reducing food waste, and recycling bio-waste.

High-quality meals **provide essential nutrients** that support children's growth and development. Proper nutrition during school years is vital for cognitive function, physical health, and overall well-being. Research has shown that well-nourished students tend to perform better academically. A balanced diet, including fruits, vegetables, whole grains, and proteins, supports cognitive functions, memory, and problem-solving abilities. Quality meals can help **combat obesity, malnutrition, and diet-related health issues** such as diabetes and heart disease. In many cases, school meals may be the most reliable and nutritious meals children receive during the day, hence quality school meals can help alleviate food insecurity and ensure that vulnerable students have access to nutritious food. For instance, **Guadalajara's comedores comunitarios** besides having partially self-sufficient canteens, thanks to the community gardens that contribute to the kitchen supplies, are part of a project focused on planetary diets, based on generating a healthy diet with sustainable food production, as described by the EAT-Lancet Commission.

School meals programmes are also educational opportunities, as they can instil lifelong healthy eating habits. When students are exposed to nutritious, well-balanced meals at school, they are more likely to make **healthier food choices in the future**.

7 International initiatives and actors

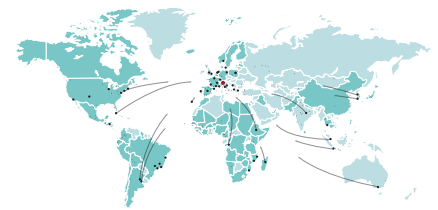
City-to-city exchange:

City-to-city exchange, also known as municipal or urban diplomacy, refers to collaborative efforts and partnerships established between municipalities or local governments from different cities or regions, typically across national or international boundaries.



The case of Milan

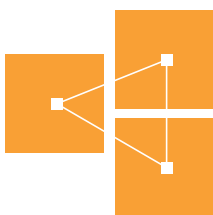
Milan has been working on city-to-city exchanges on the topic of school meals since 2018. Milano Ristorazione, the Municipal Agency responsible of the school meals programme in Milan, developed solutions on GHG procurement analysis, circular economy, new recipe tests, obesity and diabetes analysis, nudging and food environment, new logistics model and innovative kitchen infrastructures. Therefore, the Food Policy Department also developed **several European projects** on school meals, helping to transfer Milan's know-how to dozens of other European and global cities. Through the MUFPP, Milan **hosted 47 city delegations from all over the world** interested in visiting the school meals infrastructures and management system. Among the different projects, the municipal agency has identified cities in Mozambique for the development of executive master plans for the introduction of school meals in the cities of Maputo, Pemba and Tegucigalpa in Honduras.



School Food 4 Change

The EU-funded "SchoolFood4Change" (SF4C) project aims to use schools and school meals as drivers for broad societal change. It focuses on providing **innovative solutions and adaptable best practices** to schools, meal providers, public authorities, and policymakers, aligning with the EU's Farm to Fork Strategy and the UN SDGs. SF4C prioritises **educating and empowering** children and adolescents to address diet-related issues and disadvantaged environments while recognizing their potential for driving change. The project takes a **multi-level approach** involving various experts and organisations to promote sustainable food procurement, Planetary Health Diets, cooking, and the "Whole School Food Approach." SF4C, initiated in 2022, with 43 partners (lead by ICLEI Europe) and aims to impact at least two million EU citizens, 3,000 schools, and 600,000 young people across 12 European countries.





Supranational initiatives:

Supranational initiatives are cooperative efforts or agreements that involve multiple sovereign nations or states working together to address common challenges, achieve shared goals, or promote collective interests.

Europe – EU Child Guarantee



The European Child Guarantee aims to **prevent and address social exclusion** among children by ensuring their access to essential services. These services include free early childhood education and care, free education with at least one healthy meal every day, free healthcare, healthy nutrition, and adequate housing. While many children in the EU already have access to these services, the goal is to **make access universal**, particularly for disadvantaged children facing poverty or exclusion. To implement this initiative, Member states have appointed Child Guarantee Coordinators and are creating national action plans through 2030. Member states with child poverty rates above the EU average (23.4%) are expected to allocate at least 5% of their European Social Fund (ESF+) resources **to combat child poverty**. Other member states must also allocate appropriate ESF+ resources to address this issue. Funding can be used to test and expand initiatives, improve service access, and develop new programs to reach children at risk of poverty or social exclusion.

ASEAN – Health Cluster 1

The issue of malnutrition among children appears to be quite central within the ASEAN member states. Indeed, ASEAN has been working hard in this direction, through the adoption of the ASEAN Post-2015 Health Development Agenda (2021-2025) which contains **shared goals, strategies, priorities and programmes** to reach the goal of a healthy and sustainable community. Indeed, within the ASEAN Health Cluster 1 on Promoting Healthy Lifestyle the Health, Priority 7 (Promotion of good nutrition and healthy diet) lists down different project activities that aim at promoting good nutrition and healthy and sustainable diets. In this regard, a specific project activity has the aim of **establishing a Framework on Healthy Central Kitchen** for childcare centres and kindergartens in ASEAN to be used as reference in national strategies and programmes. The MUFPP and the ASEAN Health Sector are actively working in this regard, developing different activities to promote the importance of school meals programmes in the region and creating an enabling environment for the development of new initiatives.

Global initiatives:

Many issues facing the world today transcend national borders. Global initiatives provide a platform for countries to collaborate and find solutions to these complex challenges that no **single nation** can effectively tackle alone.



School Meals Coalition

The School Meals Coalition is dedicated to expanding and enhancing school meals programmes to ensure that all children can access nutritious meals in school by 2030. The Coalition is **government-led** (with the World Food Programme leading the Secretariat), and governments that have committed to these goals are its core members. Furthermore, the initiative also relies on **collaboration with various stakeholders**, including international organisations, academia, civil society, and the private sector, all of which have signed the Declaration of Support. Members and partners are located in regions across the world, and the initiative aims to address school meals challenges on a global scale. Within this coalition, that represents one of the most important **legacies of the United Food Systems Summit process**, the MUFPP and the World Food Programme established a significant partnership aimed at exploiting the existing interconnections between school meals programmes and food system transformation as a whole, and highlighting the prominence of cities in this process.

The new initiative “**Cities Feeding the Future**” led by the MUFPP will focus on the pivotal role that cities and local governments play in implementing national school meals policies and programmes. The initiative aims at **strengthening municipalities active on school meals** and facilitating **connections with national governments**, while serving as a platform to share knowledge among peer cities and global actors to facilitate uptake and scale up of innovations and best practices thanks to the knowledge of the MUFPP network.



**Cities
Feeding
the Future**

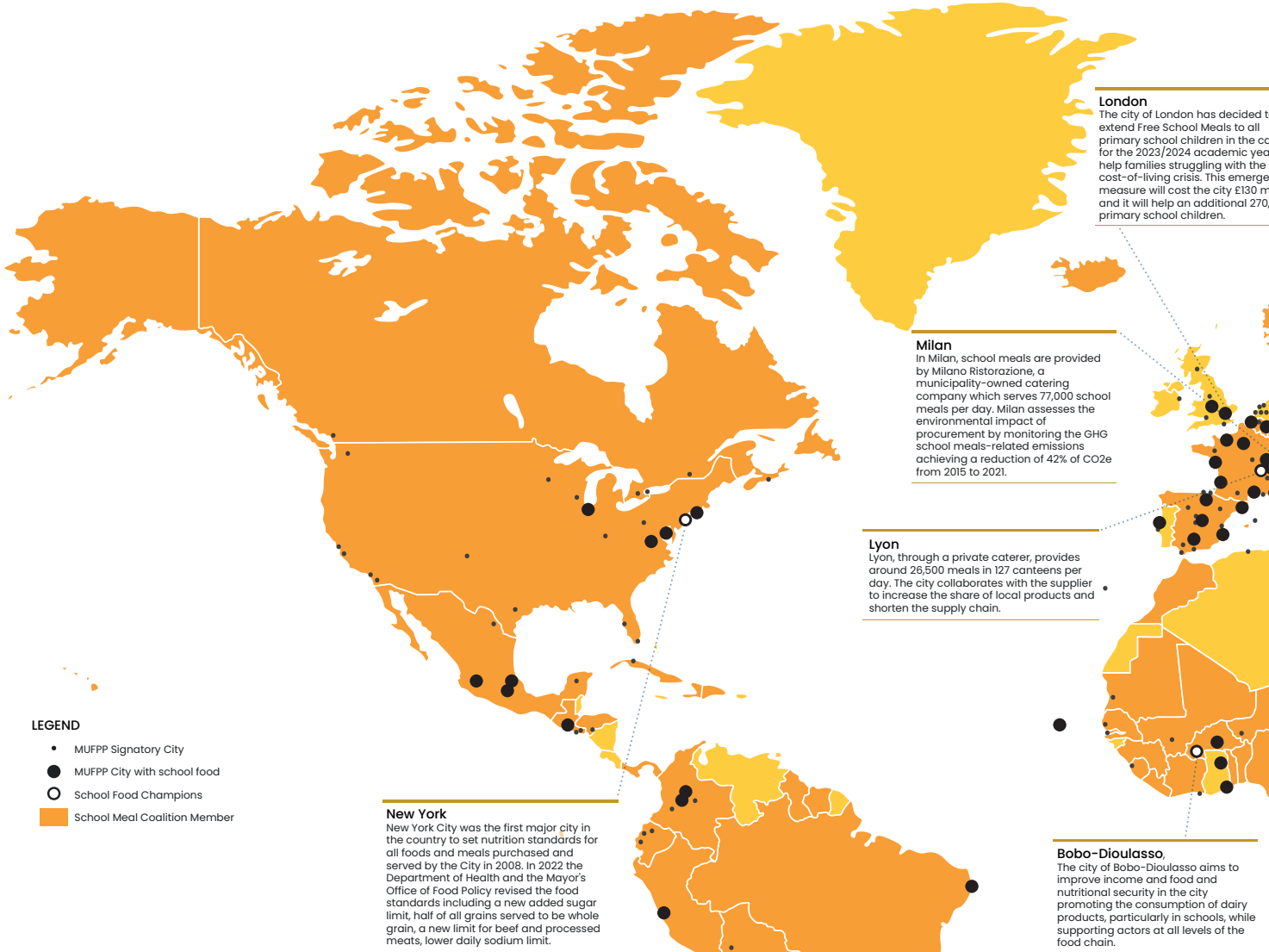
MILAN URBAN
FOOD POLICY PACT



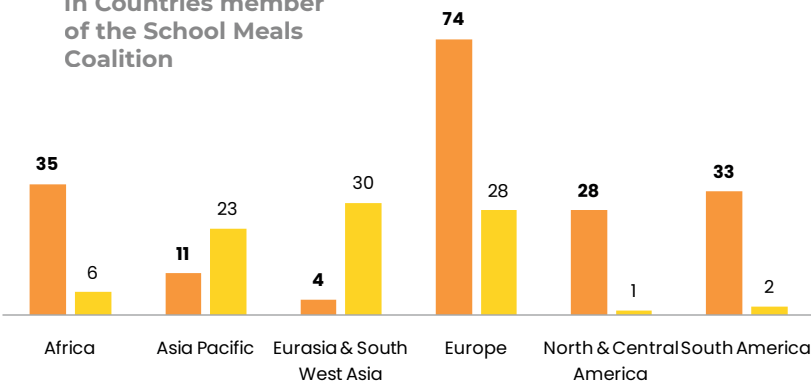


Cities Feeding the Future

MILAN URBAN FOOD POLICY PACT



MUFPP cities per Region in Countries member of the School Meals Coalition



School Meals Coalition geography in MUFPP

52 SMC Countries with MUFPP cities

185 MUFPP cities in SMC Countries

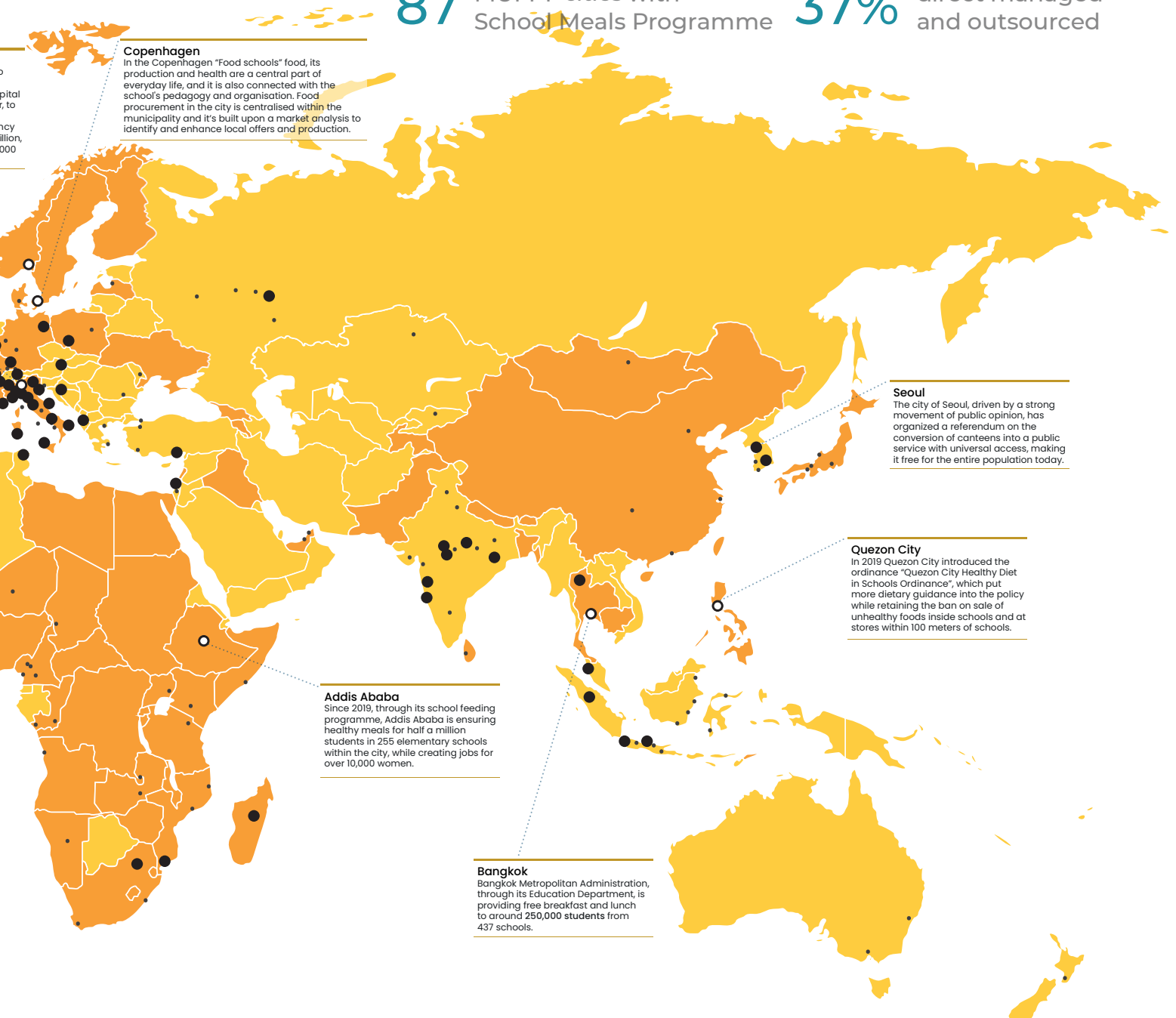
87 MUFPP cities with School Meals Programme

Management system

28% outsourced school canteens

36% direct managed school canteens

37% direct managed and outsourced



Copenhagen
In the Copenhagen "Food schools" food, its production and health are a central part of everyday life, and it is also connected with the school's pedagogy and organisation. Food procurement in the city is centralised within the municipality and it's built upon a market analysis to identify and enhance local offers and production.

Seoul
The city of Seoul, driven by a strong movement of public opinion, has organized a referendum on the conversion of canteens into a public service with universal access, making it free for the entire population today.

Quezon City
In 2019 Quezon City introduced the ordinance "Quezon City Healthy Diet in Schools Ordinance", which put more dietary guidance into the policy while retaining the ban on sale of unhealthy foods inside schools and at stores within 100 meters of schools.

Addis Ababa
Since 2019, through its school feeding programme, Addis Ababa is ensuring healthy meals for half a million students in 255 elementary schools within the city, while creating jobs for over 10,000 women.

Bangkok
Bangkok Metropolitan Administration, through its Education Department, is providing free breakfast and lunch to around 250,000 students from 437 schools.



Development cooperation bodies:

Donors can play a significant role in supporting school meals programmes providing financial assistance, technical expertise, capacity building, policy support. They can also serve to create a platform of advocacy and awareness, innovation and research, building on facilitating partnerships between governments, non-governmental organisations, international agencies, and local communities to strengthen the outreach and impact of school meal programmes.

AICS

The Italian Agency for Development Cooperation (AICS) consider achieving **food security, improving health and nutrition, ensuring quality, equitable and inclusive education** among its primary goals. To achieve so, a number of initiatives funded by AICS and implemented by AICS field offices, local partners, international organisations and NGOs include the provision and implementation of school meals programmes. For example, in Mozambique the “AgriUrb” project developed school gardens and offered training on urban agroecology for children, while in Burkina Faso the “Feeding the city” project launched a pilot system for the management of school canteens in twelve schools. Among the humanitarian projects, AICS collaborates with WFP to support vulnerable communities through school meals programmes in Lebanon, Jordan, Mali, Sudan, South Sudan, Syria, Tunisia and Venezuela.

USAID

USAID focuses on improving family health and nutrition, leveraging its **60 years of global leadership**. They collaborate with countries, prioritising evidence-based interventions to address malnutrition’s immediate and underlying causes. Key approaches include skilled breastfeeding counselling, dietary diversity, combating child wasting, micronutrient supplementation, capacity building for health providers, mobilising domestic resources, and specialised training for in-country nutrition expertise. USAID works through strong partnerships to **combine investments in health, food systems, and humanitarian response**, supporting coordinated multi-sectoral efforts for effective impact.

GIZ

The German Cooperation Agency (GIZ) actively enhances food security, nutrition, and education in various countries. A standout project is “Healthy School Meals for Better Educational Opportunities” in Malawi (2016-2022), **benefiting 150 schools**, improving child nutrition, and promoting good practices. GIZ advises the German Ministry on **policy and supports global food security initiatives** like the UN Committee on World Food Security. They also engage in a “Global Programme Food and Nutrition Security, Enhanced Resilience” in multiple countries, focusing on vulnerable groups. In Ethiopia, the WIDU.africa initiative launches a Food Security Grant, with school catering as a specific area of focus. These initiatives highlight GIZ’s dedication to addressing food security, nutrition, and education globally.

AFD

In Burundi’s Muyinga province, the Twige Neza project, supported by the French Development Agency (AFD), aims to improve the lives of **around 50,000 children in three years**. It establishes school canteens providing daily nutritious meals, a vital sustenance for many, in partnership with the UN World Food Programme. The project plans to distribute **over 17 million meals** during this period and collaborates with 3,500 local farmers, primarily women, to source fresh produce, supporting both nutrition and the local economy. Twige Neza aligns with a national school canteen programme in Burundi, targeting universal school meal coverage by 2032. In Lebanon’s Bekaa Valley, the NGO International Orthodox Christian Charities (IOCC) oversees a school meals programme benefiting approximately 6,500 students across 15 public schools. This effort not only nourishes students but also creates **employment opportunities for local mothers** who play a vital role in the canteen’s operation.

WFP

The World Food Programme (WFP) School Meals Strategy for 2020-2030 outlines how the UN agency will collaborate globally to address gaps in providing proper school health and nutrition for children. It will work with other agencies to shed light on school health and nutrition issues and **find solutions through partnerships**. Leveraging its extensive experience, global reach, and knowledge of underserved populations, WFP aims to transform school meals into a climate-responsive approach, emphasising shorter supply chains and waste reduction. The strategy outlines priorities, roles, and plans for the next decade to better support governments and children. It also highlights the **support to the global School Meals Coalition**, aimed at enhancing and expanding school meals programmes, with a focus on reaching 73 million vulnerable children. WFP remains committed to its **10-year school meals strategy** published in January 2020.

Case studies







Addis Ababa, Ethiopia, Africa

Addis Ababa faces significant vulnerability affecting daily life, especially food security, due to poverty and limited job opportunities. **To combat hunger** among school-age children, the city initiated a universal school meals program in 2019, initially covering 70 primary schools and now expanded to **255 institutions, benefitting 500,000 students**. This program, funded by the city administration with NGO support, provides two free meals a day – breakfast and lunch – and has generated 10,120 new jobs, prioritizing women’s empowerment. Moreover, 171 schools practice school-based horticulture, recycling food waste into fertilizers. Alongside enhancing nutrition, the program has **boosted school enrollment, academic performance, and attendance**. Its success lies in assessing dietary adequacy, menu diversification, and creating employment opportunities, particularly for women, fostering financial independence and managerial skills.



Bangkok, Thailand, Asia Pacific

Since 2022, the Bangkok Metropolitan Administration (BMA), led by the Department of Education, initiated a school canteen policy in **437 schools**. This programme offers **free breakfast and lunch (506,818 meals daily)** for children from kindergartens to secondary education. Employing technology, the BMA utilizes the **Thai School Lunch online platform** to **plan nutritious and cost-effective meals**. This approach has **notably reduced child malnutrition** while easing financial and time constraints for parents, promoting social and economic equity. Students and parents are encouraged to provide feedback for meal improvement, and a “Model School Canteens” competition recognizes **exemplary meal preparation and waste management practices for replication**. Beyond meals, schools **monitor children’s monthly physical growth** and integrate physical education and food choice education into the curriculum, expanding their impact on nutrition.



Berlin, Germany, Europe

In Berlin, initiatives like *Wo kommt dein Essen her?* aim to enhance school meals using **regional and organic produce** while educating children about a climate-friendly food system. This project offers age-appropriate, interactive educational materials through a free website. It includes a **regularly updated database** with videos, games, and maps, enabling children to learn about the origins and processing of organic lunch items marked with a beet symbol in the canteen. Since 2019, Berlin offers free lunches to all primary school students, promoting sustainable diets regardless of their parents' economic status. These meals consist of seasonal, local, organic plant-based foods, fostering healthier nutrition and improving classroom performance. Additionally, '*Kantine Zukunft*', fully funded by the city since 2019, aids in transforming public catering. It supports kitchen teams in reaching a **60% organic product quota without extra costs**. This involves long-term coaching, excursions, seminars, networking events, and updated procurement policies. The project addresses multiple facets of the food system, promoting organic agriculture, better culinary practices, healthier diets, and improved food accessibility for all, while managing budgets effectively.



Nairobi, Kenya, Africa

In partnership with Food4Education, **Nairobi launched the Dishi Na county program**, expanding the existing feeding initiative into **Africa's largest school meal program**, continuously growing. This program offers **daily subsidized lunches in primary schools**, supported by government funding. Through the governor's efforts, about **11 million euros annually allow families to spend just 4 cents per meal**, while establishing essential infrastructures. Ten modern kitchens, powered by **eco-friendly technology** like steam gas and eco-briquettes, were built to support the initiative. Children are provided with **Tap2Eat wristbands, linked to virtual wallets for pre-payment**. This innovative technology not only gathers crucial planning data but also instills a **sense of identity in the children**. The programmes has significantly **boosted school attendance, performance, enrollment, and reduced nutritional deficiencies like anaemia and stunted growth**. Parental involvement fosters a sense of provision, while alleviating financial strain. Moreover, the Dishi Na county initiative creates a local market for farmers and **generates employment opportunities**, especially for women and people with disabilities within communities.



São Paulo, Brazil, South America

São Paulo's school meal programme serves over a million students daily with nutritious meals sourced mainly from family farms, local producers, and organic suppliers. Emphasizing fresh, minimally processed foods, the programme maintains quality through **dedicated teams and storage facilities**. Students receive meals based on their school hours; for instance, early childhood education center attendees get five meals during their 10-hour stay. Menus are accessible online, allowing for special diet accommodations. Alongside improving eating habits, the programme aims to **reduce environmental impact by cutting meat consumption and waste**. In 2018, São Paulo, in collaboration with the Brazilian Vegetarian Society, introduced the Sustainable School Menu for a million students. This initiative substituted meat-based options with vegetarian meals to lower weekly meat intake, while tracking greenhouse gases emissions and food waste. The training organised by the city engaged cooks and nutritionists, while food sourcing has involved **over 4,000 rural families**, promoting organic farming and addressing poverty. The project's effectiveness earned it the C40-Bloomberg Philanthropies Award in the "United to Innovate!" category.



Seoul, South Korea, Asia Pacific

Seoul prioritizes a sustainable food system, taking into account school canteens into its strategy. All students, from kindergarten to high school, benefit from expanded free and eco-friendly meals. The city's key initiative, the **eco-friendly distribution centre** established in 2010, supplies safe, quality ingredients to over **1,300 schools**, steadily growing each year. Driven by concerns over food safety and stigma against low-income students, the programme integrates healthy eating and environmental education into the curriculum. By directly sourcing from local producers, through eco-friendly distribution centres created in the **wholesale markets**, it ensures meal safety and sustainability, while fostering rural-urban linkages and reaching 70% purchasing from small-scale farmers. It involves **rigorous ingredient inspections, transparent decision-making via a committee, and monthly price reporting**. A cold-chain system maintains delivery safety and quality with temperature and hygiene management. Moreover, Fridays in affiliated canteens are designated as "planet-friendly meal day", featuring vegetarian and green menus. These prioritize low carbon footprints, eco-friendly agricultural products, and zero leftovers, fostering environmental awareness among students.

Conclusions

This report underscores the **pivotal role of school canteens within urban food policies**, emphasising their significance in promoting healthy diets, addressing food poverty, strengthening rural-urban linkages, raising awareness among children on food waste and educating them about nutrition.

Key challenges such as balancing nutritious meals within budget constraints, addressing food insecurity, and accommodating cultural diversity were highlighted. However, **the report also emphasizes the potential these programmes hold, including education on healthy eating, sourcing local produce, fostering community engagement, promoting equity, and influencing food policies.**

Examining various management models for school meal programmes reveals diverse approaches employed globally. These models range from centralized system either directly managed or outsourced to decentralized ones, with each exhibiting unique strengths and challenges.

Examples from different MUFPP cities demonstrate how these models are implemented, underscoring the significance of both **top-down and bottom-up approaches** in establishing sustainable programmes. The in-depth analysis of infrastructures necessary to build and run school meals programmes also showcases varied scales and combinations,

from inside school kitchens to central kitchens and central warehouses. These assets illustrate the complexity and advantages of different approaches, catering for the diverse needs of urban populations.

Moreover, the report highlights **the responsibilities of different government levels** in managing school meals programmes, detailing legal frameworks, financial contributions, and regulations. It shows examples of national strategies, standards for meals, and funding mechanisms from various countries, showing the varied approaches employed worldwide. Furthermore, the report accentuates the importance of high-quality school meals programmes in **fostering healthy development, combating health issues, and promoting sustainable practices.** It recognizes a wide range of initiatives from cities promoting organic, local, and sustainable meals, showcasing the impact of nutritious and well-designed school meals programmes on academic performance, health, and environment.

Lastly, global initiatives and actors dedicated to improving school meals programmes **demonstrate that collaboration, knowledge sharing, and strategic interventions** can enhance child nutrition and address food insecurity on a global scale.

Overall, the multifaceted significance of

school meals programmes urges collaborative efforts to address challenges and leverage opportunities for the improvement of children's nutrition and well-being worldwide. This report is a first step towards the **definition of key elements** to design a common understanding of the commitment of cities on school meals programme.

Although it is extremely important to endorse the different applications of school meals around the globe, as they respect cultural, nutritional and economical differences, having a framework of parameters on how to define and design school catering is very important to **share a common vision**. In this sense, the interconnection between SDGs and the MUFPP indicators and Framework for Actions serves as a globally recognised framework for understanding the targets to achieve.

This report is one step towards giving MUFPP signatory cities a more specific way of understanding the **potential of school meals as drivers of change within urban food policies**.

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