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Strategizing regional food systems as pathways towards sustainability transitions: The case of Lisbon's Metropolitan Area.

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Abstract

Sustainability Transitions and the complexity of its underlying challenges place a tremendous transformative pressure on food systems, putting the food transition on the forefront to generate co-benefits for a multitude of actors and players, translated into positive impacts on the economy, health, the environment, the climate adaptation and on the society.
Various international strategies and commitments recommend that this transition be fully achieved by 2030, contributing to the goal of carbon neutrality, climate adaptation and biodiversity conservation, increasing physical and mental well-being, especially for the most vulnerable groups of the population.
A sustainable food transition has thus recently gained increased relevance in metropolitan spatial planning and development policies. However, the complexity of steering this process and delivering transformative change sits far beyond any spatial and territorial constraints, to include the intricate, and often conflicting dynamics of the governance of food environments.
As an outcome of a five-year intensive process, the Food Transition Strategy for the Lisbon Metropolitan Area was delivered at the end of 2023 and is now ready to be implemented underpinning a vision to reconfigure the evolution trajectories of the metropolitan food system by 2030.
In this paper, we critically review the experience of strategizing this regional food system from a bottom-up approach by interlinking applied research with the current regional policies into force and the action undertaken by a backboned food policy network that has preliminary established the baseline for the Food Transition Policy to come up into this achievement.

Keywords: Food Transition, Food System Strategy, Food System Planning, Food Policy Network, Lisbon Metropolitan Area.

Introduction

Food Transition is one of the components of the transition to sustainability, which involves a process of transformation of food systems, the adoption of new practices by the actors and institutions involved and the development of skills for the consumption of more nutritional, sustainable, and inclusive meals and food (Bulah et al., 2023; Sonnino, 2023; Wood et al., 2023; Zasada et al., 2019). It should be capable of generating co-benefits for the actors and interveners in their various sectors of activity, with positive impacts on economy, health, environment, climate, landscape, and society (Tribaldos & Kortetmäki, 2022). For this to happen food systems need to be planned by strategizing their resources, structures, equipment, and activities capable of ensuring the food supply of a given population, as a result of the interrelationship and dynamics of various sectors, including the production, processing, distribution, and treatment of food waste (Moragues-Faus & Morgan, 2015; Sonnino et al., 2019). Therefore, urban food system planning consists in organizing the food system in biophysical, spatial, and functional terms, through a territorial planning exercise that allows foreseeing sustainable and resilient ways of supplying healthy and accessible food to a given city or city-region (Kasper et al., 2017), including 3 phases: *(i)* definition of a strategy based on a vision for a given time horizon; *(ii)* definition of a strategic framework and action plan, which embody the objectives to be achieved and their operationalization through interaction between

the public, private, governmental, and non-governmental sectors; *(iii)* integration of the guiding principles into territorial management instruments or other public policies, based on the articulation between policy, knowledge, and action.

In this paper we introduce the phases 1 and 2 of a metropolitan food transition strategy that is now starting to be established in the Lisbon Metropolitan Area, in Portugal.

Strategic context for envisioning the regional food system by 2030

It is widely recognized that the regions, whether in a geographical, functional, political or administrative sense, are increasingly playing a key role in the design and implementation of public policies that mediate European and national political agendas and their real local impact on territories and citizens (López-Estébanez et al., 2022). The regional context of regional public policies in force in the LMA are particularly adequate to set up the food transition as making part of this strategic approach.

The Lisboa 2030 Regional Strategy, in operation since 2020 is the main guiding document for the regional food transition which, due to the expression of the metropolitan food system, can contribute to the objectives of cohesion and convergence in the country and in Europe through the role that this system plays in economic growth, in reducing territorial and social asymmetries and in pursuing governance solutions that actively involve strategic regional players, the public, private, and associative sectors in the metropolitan region.

Bearing in mind that the ETA-AML pursues a multi-sector, multi-scale, and multi-actor approach, it is understood that it should have a positive impact on restoring the dynamics of wealth creation and on internal and external regional cohesion, particularly through increasing dynamism between urban, peri-urban, and rural territories, in tandem with the blue economy. At the same time, the ETA-AML is an opportunity to integrate sectoral policies such as those relating to the territory, the economy, health, agriculture, and the environment, creating opportunities and synergies with an effect on innovation and territorial competitiveness, particularly in the context of the 2021-2027 funding framework and the challenges set for 2030 - 2050, particularly within the framework of the European Green Deal.

The planning of the metropolitan food system is therefore in line with the productive specialization observed in the LMA territory, specifically in business services, transport, logistics and distribution, energy, the environment, the agri-food industry, education, and health. Hence, it is understood that the increase of value chains from the production, processing, distribution, consumption, and treatment of food waste is an innovative approach to the territory where the dynamics of local and regional food systems take place, with a positive impact on the sustainability and resilience of the region in the context of climate change. In this context, the ETA-AML will also play an important role in implementing the strategic framework of the Metropolitan Plan for Adaptation to Climate Change (PMAAC - AML), particularly with regard to the sectoral objectives of adapting the agricultural, forestry, and agri-food sectors, in plant and animal terms, and promoting proximity food supply circuits between producers and consumers, based on the conservation and sustainability of soil, water, biodiversity, and landscape resources. The PMAAC also includes agendas to which the implementation of the ETA-AML is geared, such as the sectoral metropolitan agendas for economic adaptation, energy and energy security, water resources, human health, coastal zones, and the sea.

On the other hand, this strategic framework is the result of combining characterization and diagnosis studies and the establishment of a Food Policy Network, the FoodLink – Network for the Food Transition Network in the LMA, which drove a participatory process and the involvement of stakeholders that, since 2019, influenced the main guidelines contained in the strategic instruments that contextualize the food transition in regional policies and in the 2021-2027 funding framework (Oliveira, 2022). The results obtained make it possible to identify a set of challenges and priorities for the region which, at the same time, are translated into a strategic vision, which defines the main strategic axes, the general and operational objectives and the respective action plan.

Despite the metropolitan food system embodies a context of enormous complexity and systemic interactions for which no planning exercise has ever been carried out with the aim of relating it to public policies, knowledge, and action, in order to make it more efficient, productive, and sustainable. The ETA-AML is thus the first opportunity to gather the available information, develop a diagnosis, and establish intervention priorities, that is, the vision for the goals to be achieved by 2030, the objectives and actions to start a conscious, comprehensive, participatory, and lasting food transition process.

Strategic planning exercise aims to establish the main axes on which ETA-AML to achieve the general and operational objectives embodied in its Action Plan. The strategic framework is based particularly on the diagnosis and the results of all the information gathered during the participatory process in which around 120 entities from the metropolitan food system were invited. Following the 6 axes that frame a set of 18 actions the ETA-AML is now ready to be implemented as such:

AXIS 1 - ENHANCING PRODUCTION AREAS IN REGIONAL AND MUNICIPAL LAND USE PLANNING AND MANAGEMENT

General Objectives:

1. Implementing the ETA-AML in a systemic and participatory way, with the aim of safeguarding the natural resources associated with production systems, including rural land with strategic potential for agricultural production, fisheries resources in the sea and aquaculture in estuarine systems, integrating this topic into territorial management instruments and the various public policy instruments.
2. Integrating the food transition into territorial planning with the aim of meeting goals in terms of food safety, economic and energy efficiency, environmental and landscape quality, biodiversity conservation, adaptation to climate change, job creation, promoting urban-rural dynamics, the circular economy, and local development.
3. Valuing the Metropolitan Ecological Structure according to a multifunctional and systemic approach, integrating, whenever possible, sustainable production areas, connecting urban and rural areas, valuing opportunities for production, recreation, leisure, and well-being among the local population.
4. Promoting good sustainable production practices taking into account the soil, water, biodiversity, and energy nexus.
5. Promoting multifunctionality and knowledge associated with food production areas.

Operational objectives:

1. Support the development of strategies for transition in local food systems.
2. Prioritize the areas identified for the installation of Multifunctional Agrigood Parks (PAM) as agricultural and livestock production areas, in close articulation with the location of agri-food processing, logistics, and food distribution centers, along with an extensive universe of consumers.
3. Supporting sustainable production methods, in particular by supporting and encouraging the creation of organized producer structures.
4. Support sustainable forms of fishing and aquaculture.

AXIS 2 - MODERNIZATION AND IMPLEMENTATION OF NEW LOGISTICS, DISTRIBUTION AND FOOD PROCESSING SOLUTIONS

General Objectives:

1. Assume food transition as a vector for socio-territorial cohesion and the generation of local economic added value, stimulating entrepreneurship and creating market opportunities for micro and small businesses

Operational objectives:

1. Support the organization of short circuits between rural and urban areas to guarantee proximity supplies, strengthening the link between producers and consumers.
2. Support the valorization of local markets, both permanent and temporary, in order to increase the availability of healthy and sustainable local food at fair prices.
3. Install and modernize agri-food processing units that enable job creation and local and regional development.

AXIS 3 - ENCOURAGING HEALTHY AND SUSTAINABLE CONSUMPTION

General Objectives:

1. Increase food literacy and equity in access to safe food.
2. Create a brand for safe, nutritious, sustainable and certified local agri-food and fisheries products.
3. Promote the reduction of food waste in the different links of the food chain (production, processing, distribution and consumption).

Operational objectives:

1. Train and educate consumers about the relationship between healthy eating, environmental sustainability and public health, particularly in conjunction with private and collective catering, for example through an Ecollabeling campaign.
2. Articulate the brand's image at regional and local level with the legislation in force (DL 113/2006 of June 12 - Establishes the rules for implementing, in the national legal order, Regulations (EC) Nos. 852/2004 and 853/2004 of the European Parliament and of the Council of April 29 on the hygiene of foodstuffs and the hygiene of foodstuffs of animal origin, respectively).
3. Create a network of organizations committed to reducing food waste, in conjunction with food banks.

AXIS 4 - ORGANIZATION OF COLLECTION CIRCUITS AND MODERNIZATION OF ORGANIC FOOD WASTE TREATMENT AND RECOVERY SYSTEMS

General Objectives:

1. Set up a network of adhering entities
2. Modernize organic food waste treatment and recovery systems

Operational objectives:

1. Create commitments for the process of selecting organic food waste of enough quality for the recovery process to produce substrate for agricultural use.
2. Install efficient circuits for the collection and recovery of organic food waste with the capacity to leverage innovative processes to take advantage of by-products and intersectoral symbioses.
3. Invest in new technology that increases the efficiency of the organic waste treatment and recovery process.

AXIS 5 - TRAINING, INFORMATION AND EDUCATION

General Objectives:

1. Ensure the necessary training for the food transition.
2. Provide science-based information, using accessible language and encouraging the adoption of practices with a positive impact on the food transition
3. Promote support for food literacy in schools

Operational objectives:

1. Offer training programs accessible to all actors in the food system
2. Program training actions for agents in all sectors of the food system.
3. Create appropriate content and materials for food literacy in schools

AXIS 6 - RESEARCH AND KNOWLEDGE

General Objectives:

1. Support interdisciplinary research projects whose results can fill information gaps in the knowledge of the metropolitan food system.
2. Support transdisciplinary action-research projects to strengthen knowledge of the metropolitan food system

Operational objectives:

1. Articulate the funding instruments for research and the needs for implementing public policies and scientific support in decision-making.

Final takeaways

Coordinating a food transition strategy implementation is a considerable challenge that implies an complex governance model and the operational means that must consider mostly:

- The need to invest in knowledge and research for a more in-depth understanding of the regional food system and its interdependence with the food basin that supplies the region, whether at interregional, national or international level, with an aim of a faster and more efficient food transition;
- The creation of new business models and the modernization of the current ones, seeking to increase the weight of revenue in the regional PIB, the VAB (agricultural and agri-food), and job creation in all the components of the regional food system;
- A clear perspective of coordination between land use planning and the management of resources inherent to the sustainable functioning of the food system, with special emphasis on land use and occupation in relation to ecological suitability and urban pressure;
- Increasing the area of sustainable production and creating product certification and traceability solutions that guarantee food safety and include the externalities inherent in the sustainable management of the food system;
- Technical and financial support for structures and processes that can ensure safe, healthy, and sustainable food for the most disadvantaged groups of the population, particularly through program contracts for the provision of school meals and collective catering or intervention in municipal markets and other forms of marketing local food products;
- Technical and financial support for the development and implementation of strategies for the transition of local food systems and their governance structures which can ensure the evaluation and monitoring of the transformation of these systems and the impacts on the economy, health, the environment, and society.

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