Food neighbourhoods, productive foodscapes and healthy food linkages

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The findings of an action research project in Lima (Peru) and Quito (Ecuador) show that community initiatives and experiences are an effective strategy to counter the State's inaction in the face of food emergencies.

Failure of public policy to guarantee the right to food and the rights of Nature

The Food Security and Nutrition in the World (SOFI) reports, prepared by several UN agencies, and the Global Hunger Index show a global setback in the fight against hunger, and emphasize the importance of strengthening local action to transform food systems[1].

On a global scale, evidence supports the need to promote better public policies that foster sustainable and healthy food systems that guarantee the right to food and the rights of Nature. The rights of Nature are biocentric (not human-centered) and consider that each individual, space or ecosystem has the right to have its own evolutionary development, regardless of its usefulness or benefit to humans.

Several studies show the impact of the food system on rates of infectious diseases associated with climate change. Added to this, there are clear linkages between international food trade and increased food insecurity, especially in middle- and low-income countries, impacting the health of both people and ecosystems. Meanwhile, there is evidence that changing food consumption patterns are pushing planetary boundaries, tipping millions of people into poverty, food insecurity and hunger, and contributing to the destruction of sensitive ecosystems that are strategic for the food system itself.

Since 2020, the COVID-19 pandemic has impacted food availability and access in most low- and middle-income countries, including Peru and Ecuador, and has increased the percentage of people facing episodes of food insecurity. In Peru, in 2022, 16.6 million people, almost half of the country's population, were food insecure; in Ecuador, moderate and severe food insecurity increased from 20.7% in the period 2014-1019 to 37.3% in the period 2020-2022[1].

To address the health emergency associated with the COVID-19 pandemic, authorities in Ecuador and Peru decreed mandatory confinement and immobility, with curfews limiting the movement of people and prohibiting the use of public spaces. The availability of food for those who could afford it was guaranteed through large supermarket chains that remained open. Traditional food markets and wholesale markets were closed, as were the *bioferias* (organic markets) that operated in parks and squares in Quito and Lima. In both places, the public response aimed at feeding the vulnerable population focused on the delivery of food baskets and snacks to people identified through outdated records and inefficient distribution channels that generated allegations of corruption, some of which ended with officials in prison.

The government response to the COVID-19 pandemic demonstrated that the public policies implemented in Quito and Lima did not guarantee the right to food and the rights of Nature, nor did they contribute to a fairer and healthier food system. As a result, many people faced episodes of food insecurity that could have been avoided with public policies that understood the role of neighbourhoods and collective initiatives that managed to respond to hunger, such as the 'common pots' in Lima or urban gardens in Quito.

Action research to show why scale matters

Urban walkability is one of the most hotly debated issues among planners globally. Cities such as Paris and Berlin are implementing a '15-minute city' approach that seeks to enable people to walk or cycle to food, education, health, and recreation centers[2]. The proposal seeks to define complementary uses for various available spaces and facilities such as parks and squares or schoolyards or clubs that are not used for many hours a week.

However, Latin American cities are very different from European cities, due to the extent of their urban sprawl, the absence of roads or their poor condition, problems of public safety, poor quality public transport, and accessibility problems due to settlements on slopes and other physical barriers. To respond to such concerns, the action-research project *Healthy food hubs: building sustainable and resilient agri-food systems in Lima and Quito was implemented* in Quito.

The project sought to find out whether working at the scale of neighbourhoods associated with productive food landscapes through healthy food linkages could: i) allow the identification of problems that were not visible when addressing food systems at the municipal and country scales; and ii) guide the implementation of public policies that contribute to guaranteeing the right to food and the rights of Nature.

To answer these questions, firstly, the pre-existing food neighbourhoods, defined around the walkability of people to purchase food in reference outlets, were identified. Then, the actors that are part of the food neighbourhoods and productive food landscapes were characterized, and the community experiences that were organized to respond to the inaction of the State to guarantee access to food to vulnerable populations were analyzed. The potential of these experiences to become linkages that bring healthy food to food neighbourhoods, as well as their limitations, were identified.

The action-research project *Healthy food hubs: building sustainable and resilient agri-food systems in Lima and Quito* is funded by the International Development Research Centre, IDRC (Canada) and co-implemented by Rikolto, ECOSAD (Peru) and FUNSAD (Ecuador).

In the short term, the project has

1. evaluated, from an ecosystem and gender perspective, the agri-food systems of Quito and Lima, and their resilience to the food crisis associated with the COVID-19 pandemic, including the evolution of gender inequalities and other social inequalities;
2. identified and improved the practices and actions delivered by national and local governments, as well as citizen initiatives, with the aim of strengthening markets and ensuring the supply of nutritious food to vulnerable groups in the two cities during the pandemic.

In the medium term, it has:

3. involved agricultural producers, consumers, merchants, and authorities from Quito and Lima in the development of healthy food neighbourhoods as an innovative strategy that promotes the development of healthy, sustainable, and resilient agri-food systems, with the capacity to reduce gender inequalities.
4. assessed, through participatory action research, the potential and barriers to the development of healthy food neighbourhoods, as well as other emerging solutions in the two cities.

In the long-term the project seeks to translate findings and recommendations into proposals for national and international public policies that promote healthy, sustainable and resilient agri-food systems, with gender equality, and that are capable of responding to future crises that threaten food systems and human health.

Delineating and characterizing food neighbourhoods, productive foodscapes and healthy food linkages

Food neighbourhoods help us understand food dynamics from a different perspective than that of the 15-minute city. To delimit food neighbourhoods, we identify a food centralities – in our case, a traditional food market or a municipal market. We identified the traditional food markets as food centralities using secondary information that refers to their importance in the commercialization of fresh food in both cities. After identifying the main neighbourhood based food centralities, we delimited a 400-meter radius and administered a limited number of consumer surveys. This allowed us to identify new centralities and adjust the limits of the neighbourhoods, the main criterion being "walkability" to stock up on food and a secondary criterion being safety and physical accessibility. A mapping of healthy and unhealthy food supply helped us to locate deserts and swamps in the food neighbourhoods.

To characterize the food neighbourhoods, we calculated the number of inhabitants and households and determined the sample size for consumers. We also identified the number of merchants selling fresh food in the selected traditional food markets, and identified the number of gardens and producers with links to farmers' organizations that supply the neighbourhood with fresh food produced using agroecological practices.

"Surveys were administered among the sample of consumers, and to all traders and farmers who wanted to respond; workshops and discussion meetings were held with consumers; and a limited number of interviews were conducted with farmers and traders."

The information gathered allowed us to characterize the different actors involved in the food neighbourhood.

- To characterize **consumers**, we analyzed their food dynamics by identifying the main places of purchase as well as the motives, frequency, types of product and reasons for choosing each place.
- To characterize **farmers and traditional food market traders**, we identified the infrastructure and resources available in markets, urban gardens and farms. We also identified production systems and practices and the dynamics and main places where they buy and sell food.
- Finally, we analyzed, for **all actors**, the health situation associated with food, exposure to episodes of food insecurity and the help received to cope with food insecurity situations from consumers, traders, gardeners and producers.

At the same time, we characterized the productive foodscape associated with food neighbourhoods that include urban gardens located in the same quarter or close to it, and groups of peri-urban or rural producers who use agroecological practices and market their food through short supply chains (with no more than one intermediary). Using secondary information, such as studies of fresh food supply chains for the city, we

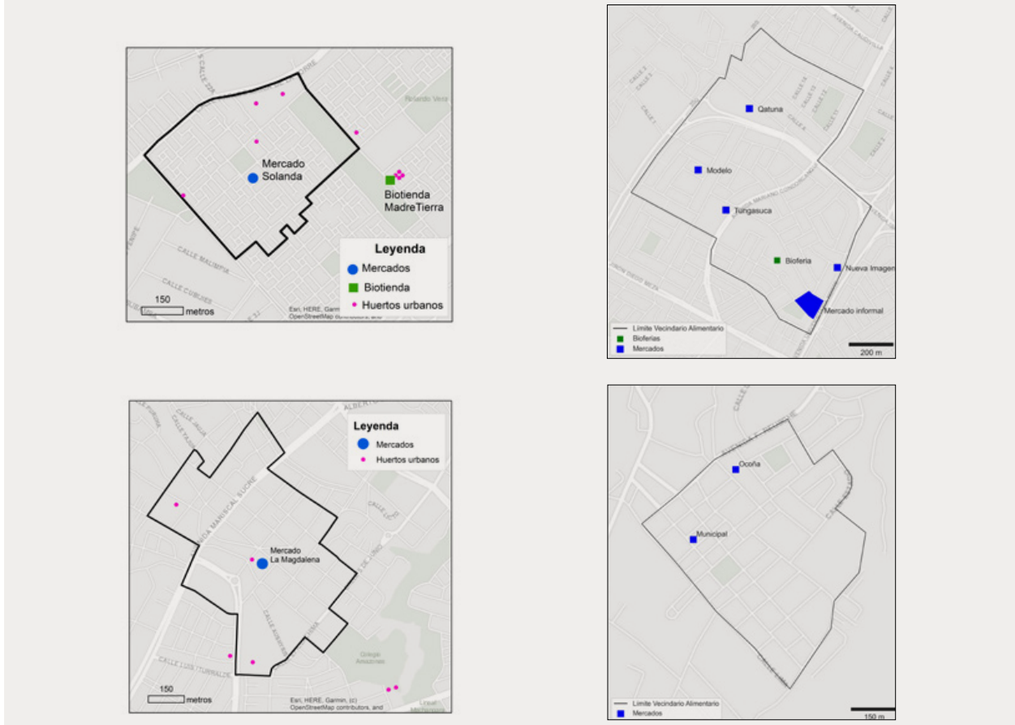
Concepts and definitions

Food neighbourhoods are conceptualized as:
'Spaces made up of a group of households, delimited by the distance that can be covered on foot to buy food in a reference outlet chosen because of the relative volume and diversity of its offer and its permanent presence. This distance implies a radius of approximately 400m around the reference outlets. In the food neighbourhoods, other food outlets coexist in addition to the reference outlets. People decide to go to one or another outlet (which may be far from their homes or even from the neighbourhood) in response to their visibility, the food on offer, their relative prices and the relationships they establish with the traders. Food neighbourhoods can be self-organized as communities, and we find in them solidarity initiatives and other forms of adaptation to food uncertainty.'

Associated with the food neighbourhoods, **productive foodscape** are defined as:
'Agricultural production spaces where there is agroecological production, that offer or can offer healthy food to the food neighbourhoods. The productive foodscapes can be remote, adjacent or inscribed in the food neighbourhoods. In the associated productive spaces, we find self-organizing initiatives of adaptation to food uncertainty. We understand healthy foods as those produced with little or no agrochemical inputs, pharmaceuticals and synthetic ingredients; without contaminants; with minimal or no sweeteners, sodium and saturated fats; grown or raised with ecological responsibility and under fair and dignified labour conditions.'

Finally, to understand whether it is possible to offer healthier food to neighbourhoods, the concept of **healthy food linkages** is defined as:
'Urban collaborative systems, established between a food neighbourhood and its associated productive environment. They involve agroecological producers, traders and consumers, bringing the former closer to the latter. Thus, they reduce or eliminate intermediaries and shorten the commercial chain, improving producers' profitability and consumer prices. They have the potential to form networks.'

While food neighbourhoods and productive foodscape refer to a current situation occurring in territories and spaces that exist in cities, healthy food linkages refer to the possibility of building new social, economic and ecological relationships between producers, traders and consumers that contribute to guaranteeing healthy food associated with the right to food and the rights of Nature.



The maps identify traditional markets, bio-fairs and urban gardens as neighbourhood food centralities in Solanda, La Magdalena, Carabayllo, and Pachacamac

identified the supply chains that provide fresh food produced conventionally.

Finally, we systematized the food response experiences implemented by communities to cope with food uncertainty during the COVID-19 pandemic; we included community responses that arose spontaneously and are intended to be permanent. The analysis of the information collected allowed us to identify both the main characteristics and the potential and limitations of some food productive spaces to become healthy food linkages (such as urban gardens and *bioferias*, and other food vending spaces such as traditional food markets or municipal markets).

What we learned

The study showed that public policies implemented to address the food emergency aggravated by the COVID-19 pandemic were not effective in food neighbourhoods, because they fail to guarantee the right to food; nor were they able to identify and support community experiences that help reduce food insecurity and hunger.

To learn whether food neighbourhoods are an appropriate scale to respond to food system disruptions associated with increased risk of facing food insecurity and hunger, we compared 2020 (when the movement of people and food was restricted) to 2019 (pre- COVID-19 pandemic) and 2021 (post-pandemic).

The results showed that working at the food neighbourhood scale allows identification of food problems and solutions that are often overlooked when considering other scales, such as the municipality or country. One example is the ability of urban gardens to bring adaptive resilience to the local food system through micro food marketing networks that benefit neighbours, many of whom did not receive any food aid from the state during the pandemic. Another example is the difficulty for traditional food markets to become healthy food linkages, bypassing middlemen and strengthening connections between farmers with agroecological practices and traditional market traders.

In short, food neighbourhoods associated with productive foodscapes through healthy food linkages offer us the possibility to improve our understanding of food systems in order to formulate better public policies based on community experiences and community organization.

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References

1. FAO, IFAD, UNICEF, & WFP and WHO. (2023). *Food security and nutrition in the world. Urbanization, agrifood systems across the rural-urban continuum.* FAO. https://www.fao.org/3/cc3017en/cc3017en.pdf
2. Klebl, F., Walthall, B., & Vicente-vicente, J. L. (2022). Planning for sustainable food communities : An optimal spatial allocation study of food hubs considering the -min city concept – The case of LebensMittelPunkte in Berlin. *Frontiers in Sustainable Food Systems.* https://doi.org/10.3389/fsufs.2022.913412

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