

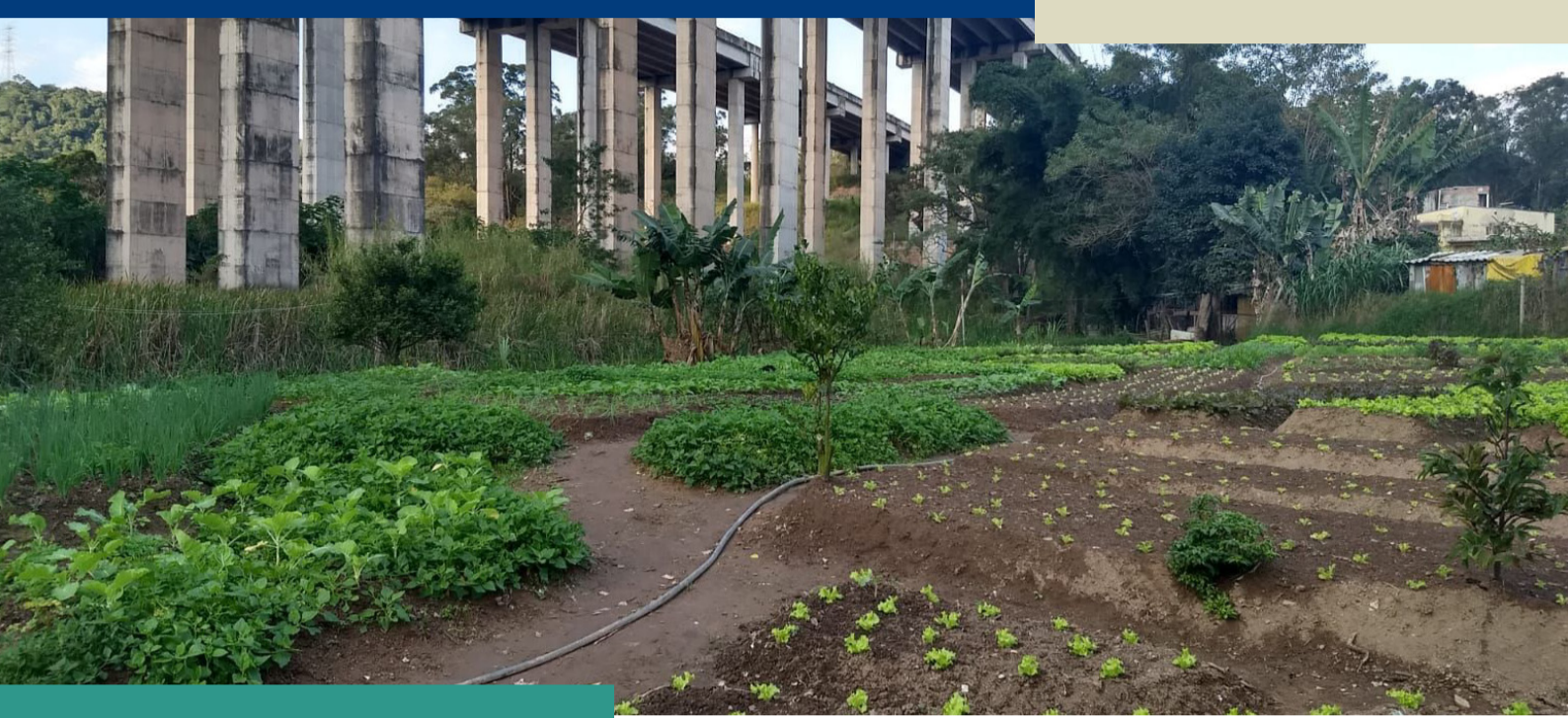
# COUNTRY BRIEF

## BRAZIL - SAO PAULO

### HEALTHY AND SAFE FOOD SYSTEMS IN A MEGACITY

São Paulo is the largest metropolitan area in Latinamerica tackling issues with food production and supply inside the city. On the one hand, the spread of AMR and pathogens trough water and food threatens health with implications for animals, humans, and their shared ecosystem. On the other hand, smalholder farmers within and around the city face obstacles accessing the means needed for the production of safe and sufficient food.

In this context, technical assistance can provide the information and resources needed to improve the resilience of the food systems. For this to be realized, re-searchers and practitioners need to work together providing solutions to complex problems in a connected world using holistic approaches like One Health.



BRAZIL

## KEYWORDS

Urban and periurban agriculture

Megacities

Technical Assistance and Rural Extensionism

Food Systems

AMR and food safety

BRAZIL

## QUICK FACTS & RESULTS

One source of food contamination in urban agriculture is the irrigation water

Most of the farmers are located in peripheral (peri-) urban areas, marked by marginalization and violence

There are inequalities in the provision of technical assistance between municipalities due to different state capacity levels and governments

Access to land and water is challenging for many farmers and affect their decision on what and how to cultivate



BRAZIL

## RECOMMENDATIONS

- Create awareness and information sources accesible to the urban farmers on the implications of AMR and food safety
- Establish programs for urban water management for agriculture supported by local authorities
- Strengthen the equal provision of technical assistance and agricultural extension services across different municipalities and regions
- Develop tailored communication approaches for agricultural producers with diverse backgrounds
- Increase the representation and participation of urban and periurban farmer's organizations in policy decision making in different sectors

» Find more details in the individual briefs

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# INDIVIDUAL BRIEF SÃO PAULO (BRAZIL)

CULTIVATING FOR THE CITY: WHAT MAKES A DIFFERENCE, AND TO WHOM? THE POLICY OF TECHNICAL ASSISTANCE IN SÃO PAULO'S (PERI-)URBAN FARMS

São Paulo is the largest metropolitan area in Brazil with 22 million inhabitants. The growing city impose territorial planning challenges. Supplying healthy food in a sustainable way for the whole population is an important one. (Peri-)urban agriculture and technical assistance to support it are key in this process, supporting farmers that still face obstacles to remain in their lands (e.g., land-tenure structure, lack of services). This research aims to analyze the role of the national policy of technical assistance (PNATER) in different municipalities of the metropolitan region of São Paulo in the resilience of these groups and in the agricultural practices in terms of sustainability, social control and agroecological transition, targeted by PNATER.

## ELIANA LINS MORANDI



Eliana Lins Morandi is interested in epistemology and methodology in Applied Social Sciences. She has previously worked in projects involving racial segregation and inequalities in urban contexts, and public policy monitoring and evaluation. In her work she usually applies mixed-method approaches, with focus on territorialized analyses, often using GIS.

She graduated in Public Administration (BSc and MSc) at Fundação Getulio Vargas in São Paulo, Brazil and is currently doctoral researcher at ZEF - University of Bonn working in the One Health and Urban Transformation post-graduate program.

## SÃO PAULO, BRAZIL KEYWORDS

Urban and peri-urban agriculture

Meso-institutions

Environmental justice

Technical assistance and rural extension

Public policy implementation

## SÃO PAULO, BRAZIL QUICK FACTS & RESULTS

- 1 Most of the farmers are located in **peripheral (peri-)urban areas**, marked by marginal and police violence.
- 2 **Land-tenure** is still inaccessible for many farmers and affect their decision on what and how to cultivate.
- 3 There are inequalities in the **provision of technical assistance** between municipalities due to different state capacity levels and governments' orientation.

- 4 **Institutionalized spaces of participation** are key to continuing development of robust and innovative public policies.
- 5 In municipalities with political will to support urban agriculture there are different **innovative policies being implemented** (including different formats of technical assistance), adapted to different territorial and institutional contexts.



## SÃO PAULO, BRAZIL LIMITATIONS & OPPORTUNITIES

Many of the obstacles can only be solved with structural changes (e.g., land tenure structure, policy funding structure). Thus, resolution must involve long term transformation with deepened public debate.

- 1. Two of the municipalities in the study - with very different capacities - have shown that political will can make a great deal of difference to the fostering of urban agriculture and can inspire other cities.
- 2. There are still a lot of agricultural areas that are still not assisted. Assistance to these farmers could significantly increase the amount of food produced in (peri-)urban areas.

## RECOMMENDATIONS

- 1. A national coordination to strengthen the provision of public technical assistance and rural extension services at the federal level could reduce inequalities between sub-national entities (municipalities and states).
- 2. Considering the overall policy infrastructure targeting agricultural sector in Brazil, there is a lack of support to (peri-)urban farmers. For instance, they are mostly not able to access credit for production and retirement (specifically designed for the rural context). There might be a revision of the policies at the national level taking into account the growing number and strategic importance of urban farms.
- 3. Given that public action by farmers' movements and organizations are an important instrument to strengthen urban agriculture, policies should focus on strengthening pre-existing groups and fostering the creation of new ones. This should be done, however, in a way that guarantees farmers' continuing participation and protagonism.

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# INDIVIDUAL BRIEF SÃO PAULO (BRAZIL)

## BUILDING KNOWLEDGE IN URBAN AGRICULTURE WATER SUPPLY IN SÃO PAULO - THE CONTEXT OF IRRIGATION, FOOD

The World Health Organization estimates that unsafe food causes 600 million cases of foodborne diseases and 420 000 deaths each year. More than half of these disease cases are due to inadequate sanitation, poor hygiene, and unclean water supply/irrigation. The Metropolregion of São Paulo, as one of the world's largest metropolitan areas with more than 22 million inhabitants, is the urban reference to research concepts and implement solutions. Knowledge of contamination mechanisms in the urban irrigation system and on food will aim to develop evidence-based guidelines as well as specific hygienic recommendations and are essential for global disease prevention.

### MANUEL GLASS



Manuel completed a three-year vocational training in nursing. After graduating with a bachelor's degree in physics at the University of Cologne, he took the opportunity to design his master studies to be more interdisciplinary in various fields beyond physics. In addition, he gained further experience abroad at the Department of Nuclear Energy of the Universidade Federal de Pernambuco. To continue pursuing complex and interdisciplinary research questions, he worked at the Research Center Jülich at the Institute of Biological Information Processing & Bioelectronics. Based on this project work he holds a master's degree in physics. Manuel established a project at the University of Bonn in collaboration with the University in São Paulo and is currently a doctoral researcher in the One Health and Urban Transformation post-graduate program at the Center for Developmental Research.

SÃO PAULO, BRAZIL

### KEYWORDS

Urban Agriculture

Antimicrobial Resistance (AMR)

Water Management

Foodborne Diseases

Megacities

SÃO PAULO, BRAZIL

### QUICK FACTS & RESULTS

- 1 One source of food contamination in urban agriculture is the irrigation water.
- 2 The pathogenic contamination differs between irrigation sources.
- 3 There are inequalities in the provision of technical assistance to avoid contamination between municipalities due to different state capacity levels and governments' orientation.



SÃO PAULO, BRAZIL

### LIMITATIONS & OPPORTUNITIES

It is worth pointing out that in the field of food and water safety in urban agriculture joint investigation of political-institutional, human health and environmental issues are not usually addressed together, given due to the sectorization of research and professional practice. Therefore, interactions between institutions, stakeholders and researchers usually take a lot of time, caused by their individual focus and professional languages. Thus, while holistic approaches are initially time-consuming on the one hand, they are usually faster and more efficient when it comes to impact and applicareas.

### RECOMMENDATIONS

Science can weigh the risks of food-borne diseases to a population through risk assessments and epidemiological investigations and help governments and producers respond appropriately with measures and advice. However, how much advice is received and accepted depends on the following factors:

1. Transparent communication and accountability of responsible sector agencies
2. The acceptable and understandable level of communication to a lay audience
3. Different communication approaches due to the diversity of producers
4. Public funding to develop and maintain irrigation sources

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