The Issues

Intensity of urbanization in Brazil in the 20th century, rapid growth of urban population and urban sprawl of built-up areas advancing on rural and agricultural land and land speculation overshadowed the persistence and resilience of agriculture in many cities and metropolitan regions.

In recent decades the assumption that agriculture is eliminated in cities has been questioned because urban agriculture persists and can even be deemed desirable for environmental and social purposes. Once invisible in cities, urban agriculture is now recognized as part of urban social and landscape, has entered policy for promoting social inclusion, improving livelihoods & food security and enhancing city environmental conditions. Specificity of Rio de Janeiro: great social disparity in an emergent country and extensive urban forest nature areas within the city. These factors influence which where and which type of urban agriculture is found within the city. The main questions are how and where agriculture is resilient and why?

1) How can urban agriculture be resilient in Rio de Janeiro?
- with 6 million inhabitants Rio de Janeiro is the core city of a metropolitan area of 12 million inhabitants
- despite land use conflict caused by urban growth, different kinds of urban agriculture persist in built-up areas and on the urban fringe so that it does not disappear as once expected.
2) How does urban agriculture vary spatially across the city?
- by location: built-up city, peripheral expansion of city and in contact with conservation areas
- according to productive objectives: commercial and/or self-provisioning
- in response to: urban land use planning and social policy in poor neighborhoods
3) Who are the farmers and how do they resist urban pressures and policies?
- which kinds of farming is better adapted to specific local contexts?
4) what do different kinds of urban farmers organize themselves in order to resist urban pressures?

The Multiple Functions of Agriculture in the City

Agriculture Becomes Visible in the City
- resilience of agriculture to urban pressures questions its disappearance from the city
- admit that agriculture is viable in the city
- recognition that it participates in the urban food system
- expresses urban-rural interaction in the city

Agriculture Becomes Desirable in the City

provides jobs and income for families
produces quality fresh food with agro-ecological farming
contributes to urban food security for farmers & local population
enhances environmental quality – green areas in built-up areas & in buffer zones of natural areas
is important for social life

AGRICULTURE ENTERS URBAN POLICIES FOR MULTI-FUNCTIONAL PURPOSES

Spatial Distribution of Agriculture in Rio de Janeiro (clusters of producers)

Location of agriculture in Rio de Janeiro

- mainly in western boroughs, previously recognized as rural zone and a green belt
- most commercial production still concentrated on agricultural land of the past
- also scattered on dispersed lots in less built-up areas and on larger backyards
- introduced into poor communities, slums and in family backyards
- liberal professionals originally from farmer families continue farming
- newcomers enter urban farming

Agriculture is situated in less densely occupied areas away from main transport routes is introduced into densely populated slums in central areas
Often surrounds mountain forest reserves where it is the only permitted activity

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The Pastoral Boa Terra Community Garden

since 2015 - gardeners from 4 communities
- communal labor in family backyards
- regular gardener meetings for making joint decisions
- horticulture, fruit & medicinal plants
- production attends 100 families

The Pastoral Boa Terra Community Garden

Challenges to and Resilience of Urban Agriculture in Rio de Janeiro

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Source: Santos, 2017.

Methods

Methods involved mainly field research because secondary data is only available for commercial farmers in aggregate form at the municipal level and do not present intra-municipal spatial variation of different kinds of urban agriculture.

The municipality of Rio de Janeiro is highly urbanized, sprawls over 1,203,329 km² and is officially considered to be all urban space, even if the presence of agricultural activities is acknowledged. Agriculture is located mainly on the west side of the city which is less densely occupied and was previously considered to be rural.

The fact that statistics exist for agriculture by itself proves that agriculture is present in the city. But data have an economic monetary bias and do not include less commercial & self-provisioning farming and the variation of economic and social objectives of urban agriculture.

Problems with statistical data were overcome by using other sources of information:
- stratified sample of urban farmer types according to location in the city
- urban farmers interviewed in locus
- representatives of GOs and NGOs working with urban agriculture interviewed
- nearby land use trends analyzed
- participant observation in farmer movement meetings

Source of data: IBGE Agricultural Census, 2017