

Editorial

Urban Agriculture and Urban Gardens: Sustainability, Food Security and Social Inclusion in the Context of Contemporary Cities

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Cultivation in urban space is not a recent phenomenon. Since ancient civilizations, such as the hanging gardens of Babylon and the Aztec *chinampas* - which were artificial islands located in urban areas, especially in the Tenochtitlan region in the lake area, in Lake Texcoco, today Mexico City - the practice of farming in urban areas was already carried out. But recently, in the 21st century, urban agriculture has gained new momentum, mainly due to the global food crisis, rising food prices, disorderly urban sprawl, and the encroachment of rural areas by cities.

Currently, urban cultivation has been consolidated as an essential subsistence strategy. Urban Agriculture (UA) and urban gardens have been consolidated as essential practices for the sustainable development of cities, especially in a scenario of population growth, food insecurity and climate environmental crisis. Defined as the cultivation of food in or around urban (peri-urban) areas, UA encompasses everything from community gardens and productive backyards to technological systems such as hydroponics and green roofs. It can be practiced either on a small scale, by families or individuals, or on a larger scale, with the involvement of cooperatives and community organizations. This type of agriculture involves the production of a variety of food products, such as vegetables, fruits, and in some cases, even animal-based proteins, such as eggs and fish.

Urban gardens, in turn, represent a specific practice within urban agriculture, promoting the cultivation of food in small urban spaces, such as vacant lots, rooftops, schoolyards, among others. These gardens can be found in vacant lots, public squares, rooftops and other urban places that have no immediate use for the construction of real estate or other enterprises. In some cases, urban gardens are implemented as projects for social inclusion, environmental education and the promotion of healthy and sustainable food in schools

The growing urbanization in recent decades has caused a series of changes in urban environments, directly impacting food consumption and production patterns. In this context, urban agriculture emerges as an alternative to face challenges such as food insecurity, environmental degradation, and the lack of green spaces in cities, especially in low-income regions. The concept of urban garden goes beyond the simple cultivation of food; it is closely related to a number of social, economic, and environmental benefits. Among the social benefits, the promotion of community integration and the strengthening of social relations among urban residents stand out, since these gardens are often spaces for collective coexistence. In addition, they contribute to the formation of environmental awareness, encouraging sustainable cultivation practices and the reduction of food waste.



From an economic point of view, urban gardens also play an important role, especially for low-income families, by enabling access to fresh and healthy food at low cost. In many cities, urban gardens act as small sources of income, since the surpluses produced are sold directly to local consumers, markets or fairs.

In the environmental sphere, urban gardens help to improve air quality and reduce pollution, since the plants contribute to the absorption of carbon dioxide and the release of oxygen. In addition, they collaborate with the mitigation of urban heat islands, a common phenomenon in cities due to the concentration of concrete and asphalt, which retain heat. Vegetable gardens can also help conserve urban biodiversity by providing habitats for pollinators such as bees and butterflies.

While urban agriculture and urban gardens have a number of benefits, they also face significant challenges. One of the main obstacles is the lack of space in urban areas, which limits the extent of these practices. The scarcity of available land and growing real estate pressure make it difficult to create new urban gardens, especially in large cities. Another challenge is related to the quality of urban soil, which can be contaminated due to the use of chemicals and pollution generated by industrial activities and vehicles. To overcome this problem, many urban gardens use potted cultivation techniques, hanging gardens, or hydroponics, which allow the cultivation of food without the direct use of soil.

In addition, the lack of effective public policies and the absence of incentives for the practice of urban agriculture can limit the growth of these initiatives. Regulating the use of public and private spaces for growing food, providing financial resources, and promoting partnerships between government, society, and non-governmental organizations are essential to the success of these initiatives.

Urban agriculture and urban gardens are increasingly relevant practices in contemporary cities, offering innovative solutions for the promotion of food security, environmental sustainability, and social inclusion. They help address the challenges brought about by urbanization and food insecurity, as well as contribute to the well-being of urban communities. However, for these practices to expand and become more accessible, it is essential to implement public policies that encourage urban cultivation, the sustainable use of natural resources, and the integration of urban agriculture into the dynamics of cities. Urban agriculture and urban gardens, therefore, are not only alternatives for food production, but also instruments of social and environmental transformation in cities.

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