



Urban Agenda Platform

The global platform for sharing progress, action and knowledge on the implementation of the New Urban Agenda to achieve sustainable urban development.

# MODEL KIT FOR URBAN AGRICULTURE: Tool for the development of sustainable cities.

Region	Latin America and the Caribbean
Award Scheme	Dubai International Award
Themes	Land Local Economic Development Strategy & Planning
Start Year	2017
Sustainable Development Goals	Goal 2 - End hunger, achieve food security and improved nutrition and promote sustainable agriculture Goal 3 - Ensure healthy lives and promote well-being for all at all ages Goal 11 - Make cities and human settlements inclusive, safe, resilient and sustainable Goal 15 - Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

## Summary

Urban agriculture presents itself as an alternative for meeting the guidelines proposed in the New Urban Agenda, signed in October 2016, promoting sustainable development of cities and human settlements. However, its implementation must be linked to the existence of adequate infrastructure and public policies that make the sustainability of this productive system feasible.

## Background and Objective

The sustainable model of urban agriculture is directly related to food production within cities. It has as one of its objectives to approach the man to the processes that involve the production of its own food, reducing distances and the waste of products during the transportation until reach the final consumer, besides qualify the spaces of the city promoting improvements in the quality of life. The proposed model contributes to the improvement of fundamental rights, the generation of employment and income, and social relationships. Characterizing itself as a model of technological innovation In the process of food supply within cities, the proposal aims for healthy eating diet with organic and natural foods, directly influencing public health. The creation of public policies enables a proposal and allows the appropriation of the concept of life cycle to urban agriculture, implanting a sustainable model that promotes a well-planned urbanization process. In this process the implantation of an infrastructure of support to the urban agriculture, that is composed by some equipment fundamental to the life cycle is developed. Acting as support to urban farmers, the whole process of income and employment generation, through the former producers, the new urban farmers and others involved in the management of the system.

## Actions and Implementation

It is extremely important that local authorities are directly related to the sustainable model of urban agriculture, institutionalizing laws that contribute to the proposal. However, it must receive a counterpart, including laws and regulations for the capture and sharing of land value, which in the project, is contemplated in the instruments of the City Statute for urban agriculture. The progressive taxation in time for vacant or underutilized lots, which imposes progressive urban land and property tax on time for empty private lots, without temporary cessation for agricultural activities, by increasing the rate for a period of five consecutive years; the transfer of the right to build for agricultural activities, which allows owners of lots with 75% of the area destined to agricultural activities to exert their constructive potential in another lot, or else, that can sell it, thereby alleviating the real estate pressure on certain areas ; and the onerous concession of the right to build, in which the municipality grants the owner of a building that builds above the limit established by the coefficient of basic utilization, by financial compensation to buy from the municipality the right to build a larger area if it maintains, at least, 40% of the plot area for agricultural activities. These possibilities include not only landowners as individuals, but also the private sector through real estate projects, allowing greater income generation for the municipality.

## Outcomes and Impacts



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For the sustainable model of urban agriculture to become active in the community, it is necessary to carry out periodic activities. With a view to equitable access of the population and the right to the city. These activities can be carried out either in urban agriculture support equipment or in public spaces in the city, such as squares, schools, day care centers, neighborhood associations, homes and universities. These institutions should be directly related to urban agriculture, carrying out educational activities near the production spaces, publicizing the project and also taking advantage of the resources offered by urban agriculture, improving the quality of school meals or organizing social gatherings with associations, universities or neighborhood associations, for example.

## Gender and Social Inclusivity

The Urban Agriculture Model Kit provides, through its primer, the institutionalization of agricultural practices in urban plans, promoting the inclusion of these items or suggesting the elaboration of a new plan for the city. It is essential to include the policies and guidelines necessary for urban agriculture, serving public and private interests, through participatory planning and the social function of property. Among the practices foreseen by the City Statute and incorporated by the model, we can mention the instruments that revitalize the city through the transformation of vacant lots into productive and public access areas, the policies aimed at improving taxation and municipal collection, in addition to those aimed at organizing the growth of the city through the purchase and sale of areas and rights to build by private initiative and public power.

## Innovative Initiative

Urban planning seeks to order and solve city problems using formal instruments and processes, such as legislation and urban plans. However, there are spontaneous practices that divide the urban space with the hegemonic practices of urban land use and occupation. An example found in several cities in the world are urban agriculture practices, which are agricultural activities that occur in urban voids whose production is directed towards self-consumption or sale in the local market. Thus, urban agriculture presents itself as an enforcement mechanism for the fight against hunger and poverty with improvements in food and nutritional security, in the sustainability and environmental quality of cities, and in the social destination of urban land. Land access and interventions in vacant lots are not facilitated for the practice of urban agriculture, since most of them are privately owned and, even when publicly owned, there are no legal means foreseen to access them. Thus, the existence of divergent interests by the use of the area that has high potential for the implementation of real estate projects to attend a high-income public and to carry out agricultural practices that meet collective interests presupposes the need for changes in the urban laws that give guidelines for the planning and use of city spaces. The practices of urban agriculture are presented as a strategy to approximate the actions proposed by the New Urban Agenda. However, initiatives focusing only on the implementation of urban gardens do not effectively contribute to the promotion of city sustainability. Thus, from the appropriation of the concept of life cycle to urban agriculture, this research presents the development of social technologies to implement a sustainable model of urban agriculture that promotes a well-planned urbanization process.

## Conclusion

Growing awareness with the importance of environmental protection and possible impacts associated with manufactured and consumed products has increased the interest in developing methods to better understand and reduce these impacts, and Life Cycle Assessment is such method. In architecture, sustainability assessment is done through life cycle assessment concepts and tools, which has come to be accepted by the international community as the only legitimate basis on which to compare materials, technologies, components and services used and / or provided. The concept of Life Cycle applied to urban agriculture seeks to demonstrate the stages by which a product, in the case the food, is submitted. Each step involves a series of impacts to the environment, ranging from the extraction of the raw material to the completion of the production process, through its installation, operation and disposal at the end of its useful life. Thus, this infrastructure supporting urban agriculture is composed of the following equipment: seed bank and seedlings, food bank, agroecological restaurant and composting center. These equipments are intended to meet the demands of the implementation of urban agriculture, such as providing support to urban farmers, distributing and managing products from this economy.