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**REVIEW ARTICLE**

# Urban and Peri-Urban Sustainable Agriculture in Developing Countries: Mitigation of Food Insecurity

Gudisa Bereda

*Department of Pharmacy, Negelle Health Science College, Negele Borana, Ethiopia*

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## ABSTRACT

Urban agriculture is expressed as the growing of plants, the production of crop, and livestock goods or the raising of animals for food and other uses within and around cities and towns. There are three descriptions of urban agriculture in advancing countries that will be proposed and notified are (1) the social contributions of urban agriculture in relation to the urban population growth; (2) the economic roles of urban agriculture and the emergence of its multi-functionality; and (3) the constraints and the risks of advancing an urban agriculture for human consumption. Urban agriculture contributes to the health and well-being of a community by lowering hunger, enhancing access to food, ameliorating nutrition, and ameliorating environmental circumstances that affect health. The capability of urban farming to continuously supply food for the urban poor, particularly in advancing nations, will based on best planning on accurate geospatial information to enable sustainable management of the practice. Urban agriculture can contribute to the following advantages such as enhanced urban food supply and food security through accelerated availability of food, particularly of fresh and perishable foods, employment and income opportunities for the urban population (involving migrants from rural areas), ameliorated household food security of the urban poor, and improved urban environment.

**Key words:** Agriculture, Developing countries, Urban and peri-urban, Food security

## INTRODUCTION

Urban agriculture is described as the growing of plants and trees and rearing of livestock within or on the fringe of cities, involving related input provision, processing, and marketing activities and services. Urban agriculture comprises the processing, production and distribution of a diversity of foods, involving vegetables, and animal products within (intra-urban) or at the fringe (peri-urban) of an urban area and its chief motivation is food production and/or obtain higher income. The Food and Agriculture Organization of the United nations was reported the acronym UPA, with "urban agriculture" referring to agriculture that takes place within the built-up city and "peri-urban agriculture" to agriculture in the areas surrounding the cities.[1,2] There are three descriptions of urban agriculture in advancing countries that will be proposed and notified are (1) the social contributions of urban agriculture in relation to the urban population growth; (2) the economic roles of urban agriculture and the emergence of its multi-functionality; and (3) the constraints and the risks of advancing an urban agriculture for human consumption.[3,4] Half of Africa's population already lives in cities, a proportion that will continue to enhance, though it is also recognized that agriculture still provides employment and income for the majority of the population. Practicing urban farming in the advancing nations is important since a substantial and growing proportion of the population lives in or

**Address for correspondence:**
Gudisa Bereda
E-mail: gudisabareda95@gmail.com

around metropolitan areas and large cities involving the peri-urban zone, where their livelihoods based to certain extent on natural resources such as land for food, water, fuel, and space for living. Motivation for city farming among the urban low income is largely due to dearth of formal jobs and as a means of adding up to household income practices. Many urban farmers, particularly women, use income earned from farming on food provision for the family. The contribution of urban agriculture to food and nutrition security is likely its vital strength since agricultural production in cities provides the poorest with a greater access to food filling a crucial share of nutritional requires.[5-7] The capability of urban farming to continuously supplies food for the urban poor, particularly in advancing nations, that will based on best planning on accurate geospatial information to enable sustainable management of the practice. There are several ways through which urban agriculture can, in principle, have an impact on urban food security. At the household level, urban agriculture can be a source of income, can provide direct access to a larger number of nutritionally rich foods (vegetables, fruit, and meat) and a more varied diet, can enhance the stability of household food consumption against seasonality or other temporary shortages, and can accelerate the time mothers spend caring for their children, as opposed to non-agricultural activities that are more probably to be located further away from home.[8] Urban agriculture is one of a number of food security options for households; identically, it is one of a variety of tools for making productive use of urban open spaces, treating urban waste, saving or generating income and employment, and managing freshwater resources more effectively. The pivotal driving forces for farmers to become engaged in urban agriculture are food security and income generation. Apart from food security and poverty alleviation, urban agriculture is significant for public health and sustainable resource management. The direct impacts are ameliorated health circumstances among urban farmers thanks to a richer vitamin and protein diet. In addition, most appropriate waste management practices lead to an attenuate in health risks. Sustainable resource management explains a most efficient use of resources, involving a decrement and reuse of waste flows whenever possible.[9,10] Closing the nutrient loop in the urban environment by reusing the so-called waste as fertilizers in urban agriculture is an option to the prevalent open-loop and linear urban systems. The products of urban agriculture are manifold and involve fresher, cheaper, and more diverse food for the poor, greener space in the cities, better sanitation, and ameliorated health circumstances and the familiar additional income and household food supply are among the most important benefits. There are several ways through which urban agriculture can, in principle, have an impact on urban food security. At the household level, urban agriculture can be a source of income, can provide direct access to a larger number of nutritionally rich foods and a more varied diet, can enhance the stability of household food consumption against seasonality or other temporary shortages, and can accelerate the time mothers spend caring for their children, as opposed to non-agricultural activities that are more probably to be located further away from home.[11] Moving beyond the household to a more aggregate level, urban agriculture can responsible for a significant share of the production of certain foods, especially the more perishable ones such as vegetables and milk. Urban agriculture is emerging strongly in Sub-Saharan Africa; where the fastest urban growth will happen in countries least equipped to feed their cities, but, currently, a strong enhance was also reported in other regions with acute economic crises.[12] Urban agriculture can contribute to the following cons such as accelerated urban food supply and food security through enhanced presence of food, particularly of fresh and perishable foods, employment, and income opportunities for the urban population (involving migrants from rural areas), ameliorated household food security of the urban poor and ameliorated urban environment. Most directly, urban agriculture attenuates food insecurity if it enhances access to food among populations suffering from food insecurity.[13]

## CONCLUSION

Urban farming is expressed as an agricultural enterprise located within or on the fringes of a town, a city or a metropolis, which grows or raises, processes, and distributes a diversity of food and non-

food products, reusing largely human and material resources, products and services found in and around that urban area, and, in turn, supplying human and material resources, products, and services largely to that same urban area. The contribution of urban agriculture to food and nutrition security is most likely its vital strength since agricultural production in cities provides the poorest with a greater access to food filling a crucial share of nutritional needs. Urban agriculture is one of a number of food security options for households; identically, it is one of a number of tools for making productive use of urban open spaces, treating urban waste, saving or generating income and employment, and managing freshwater resources more effectively.

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## REFERENCES

1. Gulyas BZ, Edmondson JL. Increasing city resilience through urban agriculture: Challenges and solutions in the Global North. Sustainability 2021;13:1465.
2. Heggie J. Die Zukunft des Wassers in Deutschland [The future of water in Germany]. National Geographic; 2020.
3. Helmecke M, Fries E, Schulte C. Regulating water reuse for agricultural irrigation: Risks related to organic micro-contaminants. Environ Sci Eur 2020;32:4.
4. Johnson C. Urban metabolism and new urban governance. In: Bleischwitz R, Hoff H, Spataru C, van der Voet E, VanDeveer SD, editors. Routledge Handbook of the Resource Nexus. London and New York: Routledge; 2020. p. 427-38.
5. Martinez P, Blanco M, Castro-Campos B. The water-energy-food nexus: A fuzzy-cognitive mapping approach to support nexus-compliant policies in Andalusia (Spain). Water 2018;10:313-29.
6. Nitzko S. Consumer requirements for food product transparency. Ernaehrungs Umschau Int 2019;66:198-203.
7. Sachs JD, Schmidt-Traub G, Mazzucato M, Messner D, Nakicenovic N, Rockström J. Six transformations to achieve the sustainable development goals. Nat Sustain 2019;2:805-14.
8. Schwindenhammer S. The rise, regulation and risks of genetically modified insect technology in global agriculture. Sci Technol Soc 2020;25:124-41.
9. Siragusa A, Vizcaino P, Proietti P, Lavalle C. European Handbook for SDG Voluntary Local Reviews. Luxembourg: Publications Office of the European Union; 2020.
10. Siborurema E. The Contribution of Urban Agriculture to Sustainable Development: Potential Role in Improving Food Security and Reducing Poverty. Master's Thesis, Stellenbosch University, Stellenbosch, South Africa; 2020.
11. Capelli A, Cini E. Will the COVID-19 pandemic make us reconsider the relevance of short supply chains and local production? Trends Food Sci Technol 2020;99:566-7.
12. Weidner T, Yang A, Hamm MW. Consolidating the current knowledge on urban agriculture in productive urban food systems: Learning, gaps and outlook. J Clean Prod 2019;209:1637-55.
13. Nilsson M, Chisholm E, Griggs D, Howden-Chapman P, McCollum D, Messerli P, *et al*. Mapping interactions between the sustainable development goals: Lessons learned and ways forward. Sustain Sci 2018;13:1489-503.