

The Role of Urban Agriculture in a Changing Food Systemⁱ

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Urban agriculture provides a significant portion of the world's food supply today and is likely to be even more important in the future—including in the United States. The Food and Agricultural Organization of the United Nations estimates that more than 800 million people worldwide cultivate fruits and vegetables or grow livestock in cities.¹ The World Watch Institute estimates that urban agriculture produces 15% to 20 percent of the world's food.² The U.S. Department of Agriculture (USDA) doesn't yet keep statistics on urban agriculture in the U.S., but various studies indicate that urban agriculture is becoming an increasingly important source of fresh vegetables and fruits, particularly in economically decaying inner cities such as Detroit, MI, Philadelphia, PA, and Camden, NJ.³ The USDA has responded to increasing demands for information by providing new educational resources to help people producing foods in urban neighborhoods.

Some critics see the trend toward urban agriculture as a passing fad brought on by public attention to urban “food deserts” – meaning urban communities without reasonable access to fresh fruits and vegetables. Critics contend that food production has moved away from cities for sound economic reasons and is not likely to return. Modern agricultural technologies led to the geographic specialization of large-scale agricultural operations as an effective means of reducing costs of food production. Most of the critics recognize that personal participation in food production provides some individual intangible benefits and that community gardening also has social benefits. However, they see little prospects for success of the urban agriculture movement in the face of continued economic pressures to globalize the food production.

A recent critique of urban agriculture in the *Journal of Agriculture, Food Systems, and Community Development* concluded: “It would be misleading to pretend that urban gardening could significantly improve food security and affordability.”⁴ Several people responded to the critique by focusing on the non-economic benefits of urban agriculture, citing numerous studies showing the positive impacts of urban gardens on overall quality of life for people living in inner cities.⁵ They mentioned also that urban agriculture provides the potential for fresher and more nutritious food than is available elsewhere in many inner cities.⁶

One respondent pointed out that many cities still have significant land available for urban gardening and that city governments have logical incentives to provide economic support to use this land for urban gardens.⁷ Another focused on the “potential” to increase productivity in urban areas through utilization of existing and new small-scale production technologies. Perhaps the most insightful response was: “The growing [urban agriculture] movement is not predicated on

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false hopes of its productive potential, but recognizes urban cultivation as one of many approaches to address inequalities in the conventional food system.”⁸

Few, if any, of its defenders claim that urban agriculture could create food self-sufficient cities. A 2017 Michigan State University Extension report summarizes the defense of urban agriculture as follows: “*The practice of urban agriculture and community gardening as an organizational strategy, a comprehensive approach to supporting and engaging individuals and neighborhoods, promoting economic development through food production, improving neighborhood safety through combating blight, and exposing youth to intergenerational interactions and encouraging self-reliance has been a trend in recent years in the United States, particularly in Rust Belt cities that have experienced many years of economic decline.*”⁹

Urban gardening certainly is not a new phenomenon in the U.S. or elsewhere. The early rural to urban migration was a consequence of industrialization of economies. Large numbers of people were needed to work in the large industrial factories that were replacing craft-based economies. With limited transportation options, people needed to live near their places of work, so cities emerged and grew around factories. During much of the 19th century, many urban dwellers continued to produce much of their own food. To serve the food needs of others, “truck farmers” settled on urban fringes, trucking their fresh vegetables, fruits, milk, meat, and eggs into city neighborhoods for home delivery or sale at city markets.

As the cities continued to grow and became more densely populated, they expanded into the countryside, replacing peri-urban farms with residential developments. Early city planners showed little concern for preserving spaces to produce food either within or near urbanizing areas. Green spaces within cities were largely reserved for parks with shade trees and scenic lakes, hillsides, and valleys where people could escape the indignities of factory towns, not spaces where people could grow food. Larger plots of land in urban fringes became housing developments or residential estates. By the late 1800s, however, a few progressive city planners were becoming concerned about the dwindling opportunities to produce food in or near cities.

In 1898, Sir Ebenezer Howard, a British social reformer, initiated the “Garden City Movement” in Great Britain. His basic idea was to develop cities of modest size, ideally around 32,000 people, with the inner core of industry surrounded by residences and an outer green belt reserved for farms to provide food for the city.¹⁰ In 1902, Howard published his classic book, *Garden Cities of Tomorrow*,¹¹ which expresses his concerns about uncontrolled urbanization and the implications for the food security of those living in cities. However, Howard’s ideas were never widely accepted, and by the 1930s, only two model cities remained in Great Britain.

Lewis Mumford of New York, a noted scholar, prolific writer, and believer in rational and ecologically sound urban planning, reframed Howard’s concept of garden cities and succeeded in sparking renewed interest in urban agriculture.¹² He began writing about urban agriculture in the 1920s, but his ideas became more popular in the 1930s. The Great Depression threatened the food security of cities with little space left to grow to food and made Mumford’s ideas more appealing. His concept of urban agriculture is most notably expressed in, *The City in History, Its Origins, Its Transformations, and Its Prospects*,¹³ which was published in 1961.

More generally, interest and participation in urban agriculture has been a reoccurring phenomenon in modern American history. Past occurrences of resurgences in urban agriculture have coincided with economic or political crises that have led to widespread food scarcity. The popularity of urban agriculture surged during World War I and again during World War II, when *Victory Gardens* and home gardening accounted for about half of total U.S. vegetable production.¹⁴ Urban agriculture also surged during the economic depression of the 1890s, the Great Depression of the 1930s, and again with the economic recession of 2008. A 2001 United Nations report documents the historical tendency of urban agriculture globally to decline with industrialization but then to resurge in popularity during times of local food scarcity.¹⁵

However, the current surge of interest in urban agriculture in the U.S. is notably different from those of previous cycles. The current resurgence in urban food production is taking place during a time plentiful agricultural production elsewhere, when significant portions of U.S. agricultural production are being diverted to biofuel production and export markets. In addition, the U.S. economy is sufficiently strong to allow the vast majority of Americans to buy more than enough food and meet their other basic economic necessities.

Regardless, many Americans today are left hungry, or at least at significant risk not always having enough food. Perhaps more significant, the foods affordable to many people in the inner cities contain more than enough calories but too few essential nutrients to sustain healthy, active lifestyles. The failure of the industrial food system to provide food security is both general and widespread. In 2017, more about 13% of U.S. residents were classified as “food insecure” and nearly 17% of U.S. children were living in food insecure households.¹⁶ A larger percentage of Americans are threatened by hunger today than in the 1960s.¹⁷

The industrial food system is now linked to a new kind of food insecurity: foods that lack the *nutritional value* essential to support healthy lifestyles. The U.S. is confronted with a growing epidemic of obesity and related diseases, such as diabetes, high blood pressure, heart disease, and a variety of diet related cancers. While the percentage of income spent for food dropped by nearly half, the percentage of GDP spent for health care in the U.S. more than tripled, from 5% in 1960 to nearly 18% in 2015. A large portion of this increase was linked to diet-related illnesses. Food insecurity, in quantity and quality, is simply more evident and most critical in inner cities where people have been left with limited access to fresh fruits and vegetables and little opportunity to grow their own food.

Ironically, the industrialization of American agriculture, which initially allowed agricultural to move out of urban areas, is now the primary motivation for returning agriculture to urban areas. The recent urban agriculture movement has coincided with a resurgence in organic farming, local food systems, and other efforts to create a sustainable agri-food system. All of these movements are rooted in a growing rejection of the industrial approach or paradigm of agri-food production and distribution.

The industrial paradigm of economic development is characterized by specialization, standardization, and consolidation of control in to ever larger production units. Industrial organizations gain their initial economic advantages through the “economies of scale” of large-scale, specialized production. The initial economic efficiency is gained through *functional*

specialization, or division of labor, which allows each worker to specialize in narrowly defined task or procedures in the production process. This the way industrial factories operate and industrial organizations organize. Functional simplification and routinization facilitates mechanization and consolidation of control into large industrial organizations.

Specialization of *agricultural* production had to wait for the post-World War II development of industrial agricultural technologies – notably affordable tractors and synthetic fertilizers and pesticides. Standardization of farming practices and simplification of farm management allowed farms to grow larger by employing fewer people. As farms grew larger and fewer, many farm families were forced to migrate into cities for employment. The *geographic* specialization of agriculture was made possible by transportation technologies – notably refrigerated transport and interstate highways. Thus, the abandonment of urban agriculture during the last half of the 1900s century was motivated and facilitated by the industrialization of American agriculture.

While agriculture was industrializing, the old industrial cities were deindustrializing. More sophisticated industrial technologies – specifically, computers and robots – replace the old industrial machines and displaced industrial workers in the process. Factories were able to function more efficiently with fewer, less-skilled, lower-paid workers. Manufacturing jobs then moved from urban to rural areas and eventually to other “less-developed” countries of the world. Unemployed and underemployed workers in the old industrial cities were those left without the economic means to compete for food with growing market demand for farm commodities for biofuels and agricultural exports. The recent surge in of urban agriculture then is motivated and facilitated by the failure of industrialization to provide *economic* security and the failure of the industrial food system to provide urban *food* security.

The urban agriculture movement is just one dimension of a larger quest for agricultural sustainability, both of which are direct consequences of industrialization. Sustainability, in the most basic sense, is the ability to meet the needs of the present without diminishing opportunities for the future. A sustainable food system then must be able to meet the food needs of current generations without diminishing the productivity of the natural and human resources needed to meet the food needs of future generations. Meeting “needs” does not suggest that everyone must have everything they want, but instead must have everything they need to lead healthy, active, purposeful lives. So, sustainability requires “food security.” Nearly one-in-eight Americans today aren’t getting enough food to meet their basic needs and many more feel compelled to eat cheap food that is making them unhealthy. The American agri-food system is not sustainable.

A sustainable agriculture must be ecologically sound, socially responsible, and economically viable. Everything of use to people, including everything of economic value ultimately comes from the earth – air, water, minerals, soil, energy. There is no alternative. Beyond self-sufficiency, people must depend on other people to meet needs they can’t meet through direct relationships with nature. Economies simply provide impersonal means or markets through which people can meet their needs by working, selling, and buying, rather than sharing, trading, or bartering. Economies are essential for complex societies. And, the sustainability of today’s modern economies depend on maintaining the productivity of natural ecosystems and civility of societies. Economic sustainability depends on ecological and social integrity.

A sustainable agri-food system must be economically viable, but it is important to understand that economic sustainability does not suggest maximum economic efficiency or profitability. In fact, the unsustainability of today's agri-food system is the natural consequence of pursuing economic efficiency at the expense of ecological and social integrity. Economic value is individual, impersonal, and instrumental.¹⁸ The economy places no value on doing anything solely for the benefit of anyone else and certainly not for any of some future generation. The need for economic efficiency must be balanced with the need for ecological integrity and social responsibility – which can be accomplished only through the processes of governance.

Urban agriculture alone obviously cannot sustain urban economies, but it still can make significant contributions to urban employment and economic development. Underemployed, low-paid workers in inner cities can engage in urban agriculture to make up for the deficiency in the quantity and quality of their current employment. Urban gardening can offset at least some of the lack of dignity in their current employment as well as the deficiency of income. Those who are unemployed may develop their farming skills by working in home gardens and community gardens to prepare them to assume paying jobs as organizers or managers of community gardens. Some may start their own full-time urban gardening enterprise. Some commercially successfully community supported agriculture organizations, or CSAs, have been developed using neighbors' backyards as their "farmland." Commercial CSAs, farm stands, farmers markets, home delivery and other urban food ventures may not be sufficient to revitalize the economies of inner cities, but they can certainly contribute to economic integrity.

Urban agriculture can also contribute to the ecological integrity of urban communities by cleaning up polluted vacant lots restoring life and health to city spaces in order to grow healthful food. Urban farmers can turn parks and green spaces into community organic gardens and orchards, replacing chemical hungry lawns and imported ornamentals. By engaging individuals and entire neighborhoods in promoting production of nutritious, healthful, food – free to harmful chemical residues – communities may become more conscious of the multitude of environmental risks that threaten the health and well-being of those who live in inner cities. Urban agriculture can restore life and health to urban ecosystems once plundered, polluted, poisoned by industry.

The greatest potential contribution of urban agriculture to sustainability may be restoring social integrity of inner cities. Urban gardeners today are organizing their communities to improve neighborhood health and safety by combating urban blight in general – economically, social, and ecologically. When people become empowered by regaining a degree of control over an aspect of their well-being as important as food, they naturally grow toward taking ever greater control of their own destinies. Unfortunately, many sustainability advocates have been preoccupied with finding economically feasible means of protecting the natural environment and conserve non-renewable resources, while giving little attention of the failure of the current economic and political systems to meet the most basic food needs of many today. Urban agriculture can restore the social integrity of the sustainable agriculture movement by focusing it on the first requisite of sustainability—meeting the basic needs of all the present.

The basic needs of both current and future generations can only be met by societies willing to balance their economic individual self-interest with the common good of society today and of humanity in the future. The fundamental laws of nature cannot be changed, so society must

respect the needs and limits of natural ecosystems, and economies must respect the basic needs of both society and nature. Government is simply a means of allowing people to give the “common good” of society and humanity priority over economic preferences of individuals.

One means of providing food security in urban areas might be through “community food utilities” or CFUs. Public utilities are widely accepted as a means of providing specific “public services.” Public utilities typically are used to provide water, sewer, electricity, natural gas, communication systems, and other essential services. Public utilities are granted special privileges that allow them to provide adequate quantities of quality essential services for all in the community, regardless of the “economic feasibility” of doing so. They address so-called “market failures,” and persistent hunger is a “market failure.”

Current public utilities do not ensure that “everyone” can afford adequate access to services but often include special programs to continue services in life threatening situations regardless of ability to pay. Community Food Utilities could be organized not only ensure universal access to food but also to ensure enough good food to meet the basic needs of all—not as an exception or act of charity but as an essential public service. CFU’s could be voluntary for participants and could utilize funds from all current government food assistance programs for those who choose to participate. By approving the CFU, local taxpayers would agree to make up any deficit.

Priority in procuring food for the CFU could be given to urban gardeners or farmers in local communities and on nearby peri-urban farms. All producers would be required to meet locally-determined standards for food safety, nutrition, freshness, and sustainable means of production. A logical organization for a CFU could be a *vertical cooperative* with a board of directors that includes local farmers, food recipients, processors and distributors, taxpayers and local government officials. The prices received by producers and paid by recipients could be determined to sustain the economic viability of all, again with local taxpayers insuring the integrity of the utility. The food utility would insulate prices from global market forces.

Regardless of the methods chosen, governments can legitimately support community gardens and urban agriculture in order to promote social equity and justice by supplementing the diets of those in urban areas abandoned and ignored by the market economy. Urban agriculture can help make good food accessible to everyone in the community, rather than just those who can afford to buy organic and other sustainably produced foods in supermarkets and restaurants. Even if urban gardens or farms can’t provide food urban self-sufficiency, urban agriculture create neighborhoods where people are committed to ensuring enough good food for everyone – at least everyone in their own communities.

Nowhere is the potential for a truly sustainable agri-food system in general more evident than in the urban agriculture movement of today. People in urban areas are beginning to understand that a market economy alone will never meet even the most basic food needs of those who lack the economic ability to compete with other uses of agricultural commodities. They are beginning to understand that simply making food cheaper is not the answer. The 50-plus year industrial agri-food system experiment has failed them. The industrial agri-food system has not only failed those who are food insecure, it has failed everyone. It’s just easier to see its failure in the food deserts of inner cities.

Urban agriculture is bringing people together to build caring communities around their common interest in ensuring enough safe, wholesome food to meet the nutritional needs of their families – all of their families. They are giving priority to the common interest of the community because the pursuit of individual economic self-interests has left them poor and hungry. They are finding ways to afford enough good food by rejecting the costly convenience of highly processed, packaged, and prepared foods. They are growing and preparing their own food. But most important, they are empowering themselves and their communities to take control of their own destinies—to find ways to meet the needs of all in the present without diminishing opportunities for the future.

End Notes:

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