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Urban Agriculture in Times of Crises: A Review

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Abstract
Urban agriculture has been utilized as a temporary and long-term solution concerning food security issues across various regions and cities throughout the 20th and 21st centuries. Urban agriculture has enabled urban dwellers to cultivate food within available urban spaces, and by doing that, it has enhanced their access to fresh local food. This article reviews four different scenarios—global conflict, economic decline, political instability, and post-conflict times—and explores various ways in which urban agriculture has been adopted in each of them. In order to gather data, a literature review was conducted, and relevant research articles, books, and theses were reviewed. In summary, this research demonstrates that during times of crises, such as global conflicts, economic decline, political instability, and post-conflict times, urban agriculture empowered urban dwellers to cultivate food. By doing so, it positively contributed to urban food resilience and sustainable urban development by enhancing urban dwellers's access to affordable local food.
Keywords: Urban agriculture; Food security; Urban food resilience; Global conflicts; Economic decline.

1. Introduction

Urban agriculture has served as both a temporary and long-term solution regarding the issue of food security across various regions and urban centers throughout the 20th and 21st centuries. It empowered the urban dwellers with regard to cultivating local food, and by doing that, it enhanced their access to local food. This article presents four different scenarios—global conflicts, economic decline, political instability, and post-conflict times—and explores how urban agriculture is adopted in each of them as a temporary or permanent solution regarding food security issue.

A brief explanation of the four different scenarios mentioned is as follows: 1) Urban agriculture in times of global conflicts: during World War II, urban agriculture played a key role in satisfying the basic food demands of urban inhabitabts. Urban agriculture was utilized as a temporary measure to meet food demands and ensure food security in both Britain and the United States. 2) Urban agriculture and economic decline: currently, public and private lots and properties in major cities in North America, such as Detroit, which have been experiencing economic decline and the loss of key industrial infrastructure, have been converted into edible gardens. There is a growing network of approximately 2000 urban gardeners and farms within the city of Detroit. The principal aim of urban gardeners in Detroit is to cultivate affordable, healthy, and fresh local food. 3) Urban agriculture in times of political instability: Political instability and international embargos and sanctions that have been imposed on Cuba have contributed to the growth of urban agriculture. Available urban plots, gardens, backyards, rooftops, and balconies have been utilized to cultivate food in Havana and other major cities in Cuba in order to satisfy the basic food demands of the local population. 4) Urban agriculture in post-conflict times: available public and private land in cities that emerged from periods of conflict and civil disruption has been utilized by urban residents to cultivate food in order to satisfy their basic needs. In sum, the principal aim of the article is to articulate the four scenarios mentioned and explore how urban agriculture is adopted in each of them.

2. Material and Methods

In order to conduct the literature review, the Google Scholar search engine was utilized to identify the relevant literature. The following keywords were searched: "urban agriculture global conflicts", "urban agriculture world war two", "urban agriculture world war two United States", "urban agriculture world war two UK", "urban agriculture victory gardens", "urban agriculture post-industrial cities", "urban agriculture Detroit", "urban agriculture Cuba", and "urban agriculture post-conflict cities". In order to conduct the review, articles, books, and theses were searched, and other sources were excluded from the search. Only English-language articles, books, and theses were selected. Only English-language articles that were published in peer-reviewed journals were selected. For the next phase, titles, abstracts, and full texts were screened, and the relevant articles, books, and theses were selected for the in-depth review.

3. Results

3.1. Urban Agriculture - Definitions and Various Benefits

Urban agriculture is essentially described as growing food within the boundaries of urban centers (FAO, 1996). Mougeot, 2000, suggests the subsequent definition: Urban agriculture can be considered a sector situated either within city limits or on the urban fringe of a metropolitan area. Urban agriculture focuses on cultivating, refining, and delivering a wide range of edible and non-edible products. Urban agriculture has the capacity to efficiently recycle

resources both within and outside the city limits. Urban agriculture mainly supplies goods and services to metropolitan areas (Mougeot, 2000). In other definition, urban agriculture is seen as encompassing farming, agricultural, and horticultural practices typically carried out on small-scale land parcels situated both within and outside metropolitan centers. It consists of cultivating, processing, and distributing food products, which mainly include fruits, vegetables, and animal husbandry (Ackerman et al., 2014; Smit et al., 1996). Urban agriculture can be considered a response to urban demand for food production, particularly in major urban centers in the developing world (Drechsel & Dongus, 2010).

The principal characteristics of urban agriculture can be summarized as follows: Urban agriculture is typically practiced near markets in urban areas. It is practiced by cultivating crops on small plots of land. It occupies minimum spaces in urban areas. It utilizes city assets such as water, land, labor, and biodegradable waste. Urban agriculture can be considered a permanent feature in urban centers in both developed and developing nations (Orsini et al., 2013).

In terms of location, urban agriculture is usually practiced in the following urban venues: fruits and vegetables are generally cultivated in various places in cities, for instance, backyard gardens, balcony and rooftop gardens, private urban lots, community gardens, institutional and educational farms such as schoolyard greenhouses, commercial farms, urban parks, vertical gardens, intensive farms, and indoor farms (Diekmann et al., 2020; Newell et al., 2022). Usually, in the majority of urban centers in developing countries, the unbuildable lands or unused public or private lands are utilized temporarily for agricultural activities (Asiama, 2005).

Various scholars have identified different benefits of urban agriculture. The principal benefits of urban agriculture can be outlined as follows: 1) community engagement and cohesion; 2) health and well-being; 3) economic; 4) educational; and 5) environmental (Ilieva et al., 2022; Ackerman et al., 2014; Orsini et al., 2013).

Concerning community engagement and cohesion, the following points should be highlighted: Urban agriculture can be regarded as a valuable asset in cities since it positively contributes to community cohesion and builds stronger communities (Smit & Bailkey, 2006). By practicing urban agriculture, community members are socially connected to each other. Such practices can increase opportunities for social bonding (Ilieva et al., 2022). Community gardens and farms can be considered as grounds where urban farmers can meet for mutual benefits (Van Averbeke, 2007; Ackerman et al., 2014). The practice of urban agriculture can lead to the establishment of farming groups. Over time, urban farmers form these groups, facilitating the exchange of experiences and cultivation knowledge among members (Olivier & Heinecken, 2017).

With regards to health and well-being, practicing urban agriculture leads to an increase in the amount of fruit and vegetable intake, thus enhancing vitamin intake (Maunder & Meaker, 2009; Afara et al., 2024; Amen et al., 2024). There is a direct correlation between home gardening and increased intake of vegetables and fruits (Ilieva et al., 2022; Van Lier et al., 2017). Gardening can increase the physical activity of urban farmers (Ilieva et al., 2022). Community gardens within the urban fabric play a crucial role in improving both physical and psychological health (Gregis et al., 2021). Gardening can positively contribute to greater physical activity and mental health among urban gardeners (Howarth et al., 2020; Palar et al., 2019). There is a direct correlation between urban gardening and higher levels of physical and mental health (Litt et al., 2015).

The economic aspect of urban agriculture is another thematic area that should be considered. Cultivation of vegetables and herbs can financially benefit the household by selling surplus products (Ilieva et al., 2022; Maconachie et al., 2012). It can positively contribute to the household's income (Olivier & Heinecken, 2017; Maconachie et al., 2012; De Zeeuw et al., 2000). Cultivating fruits and vegetables improves both the quantity and quality of food accessible to urban households, particularly benefiting disadvantaged families (Ackerman et al., 2014). Beside low-income households, other urban vulnerable groups such as migrants, individuals with mental disabilities, senior groups, and minorities can benefit from urban agriculture (Wadumestrige Dona et al., 2021; Maconachie et al., 2012). Urban agriculture is capable of positively contributing to the notion of food security for more than half of the globe's population (De Bon et al., 2010; Pearson et al., 2010). Currently, urban agriculture has been promoted as a response to existing specific urban issues such as poverty, food security, and waste management (Mougeot, 2006). Urban agriculture can facilitate employment for unemployed urban residents. The mentioned group can be engaged in urban agriculture by cultivating the land or in related off-farm activities such as food processing or marketing agricultural products (Asiama, 2005).

School-based gardens are capable of educating the young generation regarding urban agriculture practices. Education is the central pillar of such gardens. School gardens can offer educational activities by hosting students. Beside school gardens, community gardens and urban farms can also function as educational grounds by sharing insights concerning gardening, nutrition and food system literacy, cooking skills, and more (Ilieva et al., 2022). It should be mentioned that educational farms, such as school gardens, are more popular in North America, Europe, and Oceania (Wadumestrige Dona et al., 2021).

In terms of the environmental benefits of urban agriculture, the following points can be emphasized: Community gardens and urban farms as part of green infrastructure can positively impact the three following environmental issues: 1) mitigate the urban heat island effects; 2) alleviate the adverse effects of urban stormwater; and 3) reduce the energy embodied in the transportation of food (Ackerman et al., 2014).

One popular method to decrease the urban heat island effect is to increase the percentage of green spaces and the amount of vegetation in an urban center (Akbari, 2002; Ackerman et al., 2014). Community gardens and urban farms can significantly decrease the volume of stormwater runoff. By cultivating food within the fabric of the city, the distance that food travels from the farm to the table can be minimized, which results in lowering the energy embodied in food transportation. It is projected that the distance food travels from the cultivation ground to the shopper is approximately 1,300 miles (2,080 km). Such a distance can be shortened to 30 miles (49 km) if food is cultivated, processed, and distributed locally (Ackerman et al., 2014).

Urban agriculture, besides facilitating the cultivation of food crops within cities, is associated with the economic, social, ecological, and existing physical infrastructure components of urban environments (Van Veenhuizen, 2006). Urban agriculture is distinguished from rural agriculture by its close association with urban ecological and economic systems (Mougeot, 2008). Urban agriculture is multifunctional in nature, and such multifunctionality can contribute to creating sustainable urban environments (Sarker et al., 2019). In order to encourage cultivating food within urban environments, the multifunctionality of urban agriculture should be recognized and highlighted (Orsini et al., 2020).

3.2. Urban agriculture in times of global conflicts

Usually during wartime, the production, preservation, distribution, and transport systems are disrupted, which causes food insecurity. The supply of food can be disrupted in the following ways: 1) During the war, harvests and livestock are destroyed; 2) agricultural machinery is converted to be used for military purposes; 3) farmers are recruited to serve in the army, therefore the agricultural labor force is declined; 4) usually feeding the army takes precedence over civilian food demands; 5) authorities misjudge the food requirements of civilians; 6) areas under siege lack sufficient food to satisfy the demands of the civilians; and 7) ships supplying food are deliberately attacked and sunk. In such a situation, civilians have to survive on limited diets. Usually, widespread famine is one of the outcomes of the war (Maltz, 2015). During wartime, local food production plays a vital role in fulfilling the demand for food. The establishment of “Victory Gardens” in Britain and the United States serves as a notable example.

3.2.1 Britain and “Victory gardens”

When World War II commenced, it is estimated that Britain imported around 90% of its cereals, 80% of its fruits, 70% of its cheese, and 50% of its meat in 1939. It is believed that not more than one-third of the food demands in Britain were produced domestically. In order to increase local food production in line with efficiency in agriculture, the British government attempted to modernize the agriculture sector. Efforts such as mechanization, subsidizing to plough up pasture for cropping, increasing the use of fertilizers, granting substitutes for certain crops, and supervising the distribution and pricing were implemented (Maltz, 2015; Ginn, 2012; Armstrong, 2022).

To enhance domestic food production during the war, the Ministry of Agriculture initiated the “Dig for Victory” campaign in 1939. The campaign aimed to elevate local food growth in order to compensate for the deficit in food imports. It also aimed to enhance access to local fresh food. As a result of such a campaign, the number of allotments increased from 930,000 before the outbreak of war to 1.7 million in 1943. Also, the number of private gardens that produced fresh local vegetables increased from three to five million. By 1943, it was estimated that annual domestic vegetable production had exceeded six million tons. During wartime, it is evident that domestic gardeners successfully cultivated a significant amount of food for self-sufficiency, thereby easing the pressure on importing food (Maltz, 2015; Ginn, 2012; Armstrong, 2022).

3.2.2. United States and “Victory Gardens”

During World War II, federal, state, and local governments in the United States initiated the “Victory Gardens” campaign in order to encourage local food production and citizen engagement. The aim of the campaign was to produce food locally in order to supplement domestic food demands so more food could be exported to allied forces. The campaign encouraged citizens to grow food by volunteering as farm laborers. Actions such as preservation by canning were advertised in order to conserve food (Lawson, 2014; Frank et al., 2011). Participating in the “Victory Gardens” campaign was regarded as a patriotic act (Lawson, 2014; Mok et al., 2014). The National Victory Garden Program published a series of propaganda posters, manuals, and magazine ads that associated gardening with civic responsibility and patriotism (Mok et al., 2014).

It is projected that Americans established 15 million gardens across the country and cultivated 7.5 billion pounds of food. It is estimated that in 1944, between 18 and 20 million American families engaged in gardening. American families were able to cultivate 40% of the total domestic vegetable supply. Vegetables and fruits were cultivated on available public and private lands in backyards, vacant lots, parks, schools, play grounds, and such (Lawson, 2014; Andreatta, 2015).

During wartime, citizens in both Britain and the United States were urged to increase their consumption of vegetables and bread while reducing their meat intake. The establishment of numerous community gardens not only enhanced farmers' diets but also increased micronutrient consumption. Additionally, the Victory Gardens can be considered an effective model of food resilience (Maltz, 2015).

3.3. Urban agriculture and economic decline

Shrinking cities are defined as urban centers that are not capable of stemming population decline. Such urban centers lack the ability to implement effective measures to address the increasing percentage of abandoned and vacant properties. Any former industrial city that witnessed a minimum 25 percent population loss over the past decades with a steady increase in the percentage of abandoned and vacant properties can be considered a shrinking city. The typology of abandoned and vacant properties typically includes residential, commercial, and industrial properties (Schilling & Logan, 2008).

In a shrinking city, usually the native vegetation and natural elements are removed during the process of urban development. Past industrial activities might have contaminated the soil at industrial sites. Urban agriculture can be considered a remedy to revitalize the existing vacant properties. By revitalizing abandoned and vacant properties, a shrinking city is able to create new economic opportunities (Schilling & Logan, 2008).

Detroit can be considered a shrinking city. It is situated in southeast Michigan. The automobile industry contributed to the development of the city. During 1920, after New York City, Chicago, and Philadelphia, Detroit was the fourth largest city in the U.S. At its height in 1950, Detroit's population reached 1.9 million. The decline of Detroit's automobile industry started in the late 1960s. Detroit lost half of its jobs between 1970 and 2010. Currently, the population of Detroit is under 640,000 (Newell et al., 2022).

During the last five decades, the city of Detroit has witnessed widespread urban decay. The principal factors that contributed to Detroit's urban decay are the decline in the car manufacturing sector and the formation of urban sprawl. During the last five decades, Detroit has witnessed population outmigration. Such migration created acres of abandoned land and property within Detroit's urban limits (Colasanti et al., 2012). It is estimated that over 100,000 vacant lots are available in Detroit (Newell et al., 2022). It is expected that the amount of abandoned property in the city is approximately one-third of Detroit's 139 square miles (Colasanti et al., 2012).

Recently, the shrinking working and middle classes in Detroit have faced several challenges, including limited access or a lack of access to affordable, healthy food that is cultivated locally. Low-income families who usually reside in impoverished neighborhoods have limited access to fresh local food options. Such families have greater access to liquor and convenience stores, which offer low-quality food (White, 2011).

As mentioned before, Detroit can be considered a shrinking city. The post-industrial landscape of Detroit presents a unique opportunity to imagine creative ways to revitalize the available vacant lands. Promoting urban agriculture can be considered one possible solution (Newell et al., 2022). The available vacant lots that are owned by the city, county, or state government, in line with private properties, can be utilized for urban agriculture practices and activities (Colasanti et al., 2012). It has been estimated that in Detroit, approximately 70 percent of annual vegetable demands and 40 percent of fruit demands can be cultivated locally by utilizing conventional agriculture methods in available public lots (Colasanti & Hamm, 2010).

Currently, the existing gardens in Detroit are dispersed throughout the city. The majority of gardens are private and located on vacant lands next to occupied lands. The residents annexed the vacant land next to their home and converted it into edible gardens. Also, lots owned by the city, country, or state are converted into gardens. The resident's main motivation for practicing urban agriculture is to create new economic opportunities, increase access to affordable fresh local food, strengthen the community fabric, and continue the family farming tradition (Newell et al., 2022).

Presently, there is a growing network of approximately 2000 urban gardens and farms in Detroit. The principal goal of such gardens and farms is to create a food-sovereign city by creating a resilient food ecosystem that encourages individuals to cultivate affordable, healthy, and fresh local food. The existing networks of gardens and farms can enhance the concept of food security and independence. Local residents cultivate fresh vegetables and fruits within the city limits, which are then consumed locally (Newell et al., 2022; Colasanti et al., 2012).

3.4. Urban agriculture in times of political instability

Urban agriculture in Cuba can be regarded as an urgent effort to produce food in a period of food shortages caused by political instability. Cuba used to import approximately 57% of its food supply from the Soviet Union before its collapse in 1989 (Jansen, 2022). From 1975 to 1985, around 50% of calorie intake and 60% of protein intake were imported from the Soviet Union and the Council for Mutual Economic Assistance (COMECON) (Chan & Freyre Roach, 2012). In total, 86% of Cuba's raw materials—beans, cereals, and rice—were imported from the Soviet Union (Jansen, 2022; McNamara, 2017). The agricultural sector heavily relied on imported goods. Approximately 48% of fertilizers and 82% of pesticides were imported (Diaz & Harris, 2005). The principal product of Cuba was sugar cane, which was exported to the Soviet Union. With the collapse of the Soviet Union, imports of goods and services stopped, and Cuba faced significant consequences. The import and export capacity of Cuba dropped by more than 75% (Jansen, 2022; McNamara, 2017; Diaz & Harris, 2005). Following the collapse of the Soviet Union, Cuba experienced a decline of approximately 40% in protein intake and 60% in per capita calorie consumption (Chan & Freyre Roach, 2012).

Cuba entered a period of crisis, which is referred to as the "Special Period." During the "Special Period," the food rations that were provided by the government were reduced. The prices of foodstuffs and consumer goods on the market increased due to a shortage. Also, sanctions and trade embargos imposed by the United States government

increased economic pressure and complicated trade opportunities. As a result, the percentage of undernourishment increased from 7.8% to 20% (Jansen, 2022; McNamara, 2017).

The Cuban urban population at the time was challenged to find alternative solutions to feed themselves. Urban agriculture was considered a response to the existing food shortage. Urban dwellers commence to cultivate food on available urban plots, gardens, backyards, rooftops, and balconies (Jansen, 2022; Chan & Freyre Roach, 2012; Diaz & Harris, 2005). The Ministry of Agriculture also supported the urban agriculture movement by legalizing it so urban dwellers can extensively utilize vacant urban spaces for cultivating food (Jansen, 2022; Chan & Freyre Roach, 2012).

As a result of government support, approximately 50% of the vegetables and fruits consumed in Havana in 2001 were cultivated locally within the city (Jansen, 2022; McNamara, 2017). More than 22,000 residents of Havana are involved in urban agriculture (Premat, 2005). By 2002, it was estimated that around 35,000 hectares (86,450 acres) were under cultivation in Havana (Klaus, 2004; McNamara, 2017). Organoponic farms (organopónicos) are widespread across Havana, where farmers directly sell the farm's products to residents in adjacent neighborhoods (McNamara, 2017). Urban agriculture is employed as a strategy to bring producers and consumers closer together, providing consumers with direct access to fresh, local food from neighborhood farms (Diaz & Harris, 2005).

Since 1989, individuals have been authorized to cultivate state-owned lands if they are eager to grow food on them (Diaz & Harris, 2005). Since 2008, the Cuban government has introduced the policy that vacant lands would be handed to individuals with adequate skills and resources to cultivate. The principal aim of the policy can be summarized as follows: 1) to utilize available vacant land and involve individuals in order to cultivate food locally; 2) promote local self-reliance in food; and 3) contribute to satisfying the local food demand (Chan & Freyre Roach, 2012). Supporting urban agriculture is also justified by the high demand for food in urban areas, making it practical to cultivate food in close proximity to urban dwellers who are consumers (Klaus, 2004).

According to the estimates, urban agriculture created approximately 160,000 jobs in Cuba. Individuals with various backgrounds, such as retired people, housewives, workers, and professionals, are engaged in urban agriculture (Klaus, 2004). Due to the efforts of the Cuban government, the island has emerged as a global leader in organic urban agriculture (Premat, 2005). Due to the limited availability of petroleum, commercial fertilizers, and agricultural machinery, rural and urban farmers in Cuba are encouraged to use organic farming methods. For farming, organic fertilizers, biological pesticides, green manure, livestock manure, worm compost, and manual labor are employed instead of relying on the purchase of commercial goods and machinery (Klaus, 2004; Diaz & Harris, 2005). Urban agriculture practices assisted Cuba in transitioning from being dependent on importing food to becoming self-sufficient. As a result of Cuban government efforts, the Cuban food cultivation and distribution system became a model for other countries worldwide, particularly developing nations (McNamara, 2017).

3.5. Urban agriculture in post-conflict times

Over the past few decades, major urban centers in sub-Saharan Africa have faced numerous issues and challenges, including rapid urbanization, the proliferation of urban poverty, decay in urban infrastructure, and the continual escalation of food and oil prices (Maconachie et al., 2012). Rapid urbanization negatively contributed to unemployment, poverty, and an insufficient food supply within the urban centers (Idowu et al., 2012). With regards to the increase in food and oil prices, as an example, the cost of rice in Sierra Leone increased by approximately 300 percent in April 2008. Furthermore, in addition to these challenges, some African countries have experienced internal civil wars and conflicts. One of the negative outcomes of the civil war was the growth in the percentage of individuals living in extreme poverty (Maconachie et al., 2012).

Urban centers that emerge from periods of conflict and civil disruption usually face major challenges in meeting the basic demands of their residents. Providing affordable food for urban dwellers and achieving food security are crucial challenges that such cities usually face. In an ideal situation, cities that are emerging from post-conflict periods should be able to satisfy the basic needs of their residents, such as access to fresh local food (Lynch et al., 2013). However, in reality, providing fresh local food is a major challenge, and low-income urban dwellers who do not receive state welfare benefits must adopt various survival strategies to safeguard their food security (Maconachie et al., 2012).

In response to the high cost of food and safeguarding urban food security, urban agriculture as a strategy has been utilized in various African urban centers (Maconachie et al., 2012; Idowu et al., 2012). Recently, urban dwellers in West Africa have engaged in practicing urban agriculture, which mainly consists of the cultivation of food crops and raising small livestock on available plots of land within and around the major urban centers. By practicing urban agriculture, low-income families are able to generate additional income for the household (Idowu et al., 2012).

Freetown is the capital city of Sierra Leone. During the civil war era, which occurred between 1991 and 2001, approximately two million refugees migrated there (Maconachie et al., 2012). Freetown can be considered an example of a specific urban environment emerging from a post-conflict period. The majority of low-income residents in Freetown engage in urban agriculture to cultivate food and sell the surplus in local markets. For these residents, farming the available land is their primary source of income (Lynch et al., 2013).

In Freetown, land accessibility is a major issue for the majority of urban farmers. It should be mentioned that land in Freetown is owned by private individuals with freehold titles. Urban farmers cultivate the land that belongs to the landlords. Urban farmers have to rent the land from the landlords seasonally. Usually, the landlords grant seasonal

licenses to the farmers to cultivate the land. Each license is renewed by the end of the farming season. The amount of the rent depends on the size of the land (Asiama, 2005).

In Freetown, both men and women are engaged in urban agriculture. With regards to gender ratio, approximately 51 percent of urban farmers are female, while 49 percent are male. Usually, urban farmers in Freetown have a strong agricultural background. The majority of marketing activities are usually done by females, while male farmers are usually engaged in physical labor related to agricultural activities. In order to overcome various challenges, urban farmers in Freetown established associations and self-organized groups. The mentioned organizations facilitated financial, legal, and administrative support for the farmers (Maconachie et al., 2012).

4. Discussions

Urban agriculture was utilized during World War II to enhance the amount of local food production in order to achieve food security and self-reliance. During World War II, urban agriculture was regarded as both a short-term strategy and a survival strategy for the nations involved in global conflicts.

During the era of economic decline (Detroit sample), political instability (Cuba sample), and post-conflict times (Sierra Leone sample), urban agriculture has been utilized as a long-term strategy to achieve the following goals: 1) increasing the level of local food production; 2) achieving a degree of self-sufficiency in food production; and 3) creating jobs for low-income people. In order to achieve the mentioned goals, both public and private lands have been utilized for cultivating food crops in urban centers.

5. Conclusions

Urban agriculture can be seen as both a temporary and a long-term solution that can be adopted during times of crisis to address food security issues. This article briefly presents four different scenarios and explores how urban agriculture is adopted in each of them. During World War II, urban agriculture was used as a short-term strategy in both the United States and Britain to address the issue of food security. Urban agriculture has been utilized as a long-term solution to address the issue of food security during contemporary economic and social hardship (the case of Detroit), times of political instability, trade embargoes, and economic decline (the case of Havana), as well as in post-conflict periods (the case of Sierra Leone). In summary, this research demonstrates that during times of crises, such as global conflicts (World War II), economic decline (the case of Detroit), political instability (the case of Cuba), and post-conflict times (the case of Sierra Leone), urban agriculture utilized as both a short-term and long-term strategy to enable city dwellers to cultivate food. By doing so, it increased urban dwellers access to affordable, fresh, local food.

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Conflict of Interests

The Author declare that there is no conflict of interest.

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