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RESEARCH ARTICLE



Stimulating and developing sustainable urban local economies: The role of urban agriculture

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ABSTRACT

Whereas urban agriculture is a potential tool for urban local economic development (LED), there appears to be little empirical evidence that has examined how urban agriculture affects the urban local economy from a LED perspective. This research aims to examine the role of urban agriculture in the urban local economy in a developing country, Ghana. Data for the research was obtained through focus group discussions and key informant interviews with urban agriculturalists and urban local authorities in two assemblies respectively in the Greater Accra region of Ghana. The findings showed that if properly supported, urban agriculture can improve the local economy because of its multiple benefits of employment, income, and improved livelihood and food security. This study contributed to expanding the international scholarship on LED from the perspective of using urban agriculture as an LED strategy by examining the case in Ghana.

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Local economic development; urban agriculture; employment; urban policy; urban economy

1. Introduction

The development of urban economies is crucial as studies have indicated that the world is urbanising, with the data showing that about 68 per cent of the world's population will live in urban areas by 2050. The data further shows that the situation is even worst for Africa and Asia as 90 per cent of this population growth will occur in these two continents (United Nations, 2018). Clearly, this situation will lead to pressure on the urban economy with implications for urban food systems. Indeed, for a substantial period, urban agriculture has been well-acknowledged as a key aspect of urban survival among the poor in many countries of the Global South (Thornton et al., 2010; Smart et al., 2015). Globally, between 25–30 per cent of the urban population is involved in urban agriculture (Osrini et al., 2013). In Sub-Saharan Africa, the evidence shows that between 20–84 per cent of urban households are engaged in urban agriculture and this mainly depends on factors such as the city, rising demand for urban food, closeness to input and output markets, poverty, and unemployment (Delbridge & Ngoga, 2021).

Despite the misgivings, the urban agriculture literature is filled with several benefits ranging from income generation to the creation of jobs and food security (Hampway

et al., 2007; Dubova & Machac, 2019). Therefore, in cities of the Global South, there is a need for strong policy backing for urban agriculture as an important tool for poverty reduction (Thornton et al., 2010). Urban agriculture is therefore seen from this perspective as a pro-poor oriented concept with an emphasis on improving the livelihood of urban dwellers, especially the vulnerable. Similarly, the notion of local economic development (LED) is aimed at utilising and harnessing existing human and natural resources for the local people's development and benefit (Mensah et al., 2013a; Mensah et al., 2019). Indeed, supporting urban agriculture could be described as possibly one of the most substantial interventions for 'pro-poor' LED in modern-day Africa (Hampwaye et al., 2007). Generally, LED emerged as a substitute for the top-down development strategy that has the potential to respond to the developmental aspirations and needs of local people (Akudugu, 2018; Mensah, 2023).

For the past three decades, research on both LED and urban agriculture has increased significantly, driven by the fact that both concepts could promote local sustainable development as well as poverty reduction (Brinkley, 2012; Orsini et al., 2013; Mensah et al., 2017; Akudugu, 2018). Hence, adopting urban agriculture as an urban LED strategy is crucial as it could help mitigate urban food challenges and contribute to sustainable urban economies (Mensah, 2023). Urban agriculture can therefore be used as an LED strategy to enhance urban local economic activities such as urban food trade, urban food production, and urban market demand with the aim of boosting employment and generating income. From the above, it is worth examining the policies and institutions that have the potential to directly or indirectly support or constrain urban agriculture (Thornton et al., 2010).

Whereas urban agriculture could be used as a tool for LED, there appears to be little empirical research that has examined how urban agriculture affects the urban local economy from an LED perspective. This paper explores the role of urban agriculture in developing the urban local economy in Ghana. The study aims to fill the above gap and make a modest contribution to expanding the LED scholarship, especially on the role of urban agriculture as a tool for LED by examining the case of Ghana. This is important in that the urban population is growing with its attendant many challenges and the continuous practice of urban agriculture, hence the need to examine the contribution of urban agriculture to the local economy and the associated policy support and challenges. Historically, agriculture has indispensably contributed substantially to every society and its economy and currently could serve as a buffer for urban areas, especially in the countries of the Global South (Loizou et al., 2019). Indeed, urban agriculture is highly linked to the achievement of SDGs, especially SDGs 1, 2, 8, 10, and 11.

The choice of Ghana and specifically Accra is because it is the most populous region in Ghana with a significant number of its residents depending on urban agriculture for both vegetable needs and living (Hasselberg et al., 2020; Torto & Brownell, 2020). The findings of the paper showed that with enough institutional and policy support, urban agriculture has the potential to contribute to the development of the local economy despite its challenges. This paper contributes to expanding the international scholarship on LED, especially with reference to urban agriculture as a tool for LED by examining the case of Ghana which is gradually becoming a focus for LED interventions in Sub-Saharan Africa. The paper proceeds as follows: the first section provides empirical literature on urban agriculture as well as the relationship between LED and urban agriculture. The

second section discussed the methodology that was employed for this study while the third section concentrates on the findings of the study. The fourth and fifth sections discussed the findings of the research and conclusion respectively.

2. Urban agriculture

Urban agriculture has been conceptualized differently by scholars. However, definitions of urban agriculture range from growing plants and animals (Van Veenhuizen, 2006) to the production, processing, and marketing of agriculture-related activities (Mougeot, 2000; Thornton, 2008) within and around urban, peri-urban, cities and towns. It serves the purpose of not only food for urban dwellers but also stimulates other businesses such as the production, processing, distribution, and marketing of agricultural food products in urban settings (Van Veenhuizen, 2006; Thornton, 2008). In terms of space, Thornton et al. (2010) maintain that urban agriculture is done in many spaces including river and stream banks, vacant spaces, rooftops, wetlands, in uncompleted buildings, among others. The term urban agriculture is used in this study to refer to the growing of various types of food plants in vacant places in urban settings for both commercial and survival purposes similar to the definition of Hamilton et al. (2014). The emphasises on food plants is rooted in the idea that it is the dominant form of urban agriculture (Zezza & Tasciotti, 2010).

The contribution of urban agriculture to generating employment and livelihood opportunities for the urban poor cannot be underestimated. Studies such as Lee-Smith (2010) and Zezza & Tasciotti (2010) have indicated that the UNDP projected nearly 800 million people across the world to be involved in urban agriculture, translating to some 150 million jobs. Similarly, studies have pointed out that urban agriculture does not only contributes greatly to nutrition and health but also to urban food security, especially for the vulnerable and poor in the Global South (Mutonodzo, 2009; Redwood, 2009; Prain et al. 2010). The evidence further shows that urban agriculture greatly enhances social inclusion and promotes community development (Olivier & Heineken, 2017). Crucial among the benefits of urban agriculture are urban greening and the preservation of open spaces (Mougeot, 2006; Redwood, 2009). Urban agriculture is progressively being recognized as a survival strategy, and to increase income and enhance the general quality of life of vulnerable urban dwellers (Mougeot, 2006; Thornton, 2008). In other words, whereas some earn income from urban agriculture as a full-time job, others generate income through sales of surplus farm produce and saving on food expenditure. Generally, it has been found that urban agriculture has four potential benefits: economic opportunities, education, health and well-being as well as education (Olivier & Heineken, 2017; Dubova & Machac, 2019).

Whereas the above evidence is compelling about the significance of urban agriculture, especially for the urban poor and vulnerable, there appear to be some dissenting views. For instance, based on the evidence from South Africa, Webb (1998) entreat us not to overrate the role of urban agriculture as a poverty alleviation tool. The argument is that whereas urban agriculture is imperative, its outcomes are remarkably low. According to Rogerson (1998), the arguments in favour of urban agriculture in South Africa have been largely for developmental advocacy rather than the reality on the ground.

Urban agriculture in Ghana has a long history, ranging from the introduction of the practice by the Europeans with an emphasis on foreign vegetables and decorative crops from Europe to feed the Europeans (Asomani-Boateng, 2002) to its encouragement during the second world war and eventually to its current state of encouraging people to farm in available space to increase food supply. In their study, Armar-Klemesu & Maxwell (1998) argued that over 60% of urban farmers are men who are driven by the need for food, cash income and assets which can be discharged in cases of crisis. They also found a number of challenges associated with urban farming including improper use of agricultural chemicals. Similarly, it has been revealed that 90 per cent of all vegetables consumed in the Accra metropolitan area is cultivated by urban farmers within the area.

In 2015, the Ministry of Agriculture indicated that peri-urban agriculture made a substantial contribution to a variety of foods in the Ghanaian urban markets. The report added that about 90 per cent of the lettuce and spring onion consumed in Kumasi was from urban agriculture with residents of Tamale and Accra consuming 80% and 10% of lettuce and spring onion produced from urban farming. Similarly, Ayerakwa (2017) found that income raised from urban agriculture constitutes the highest in the studied cities, accounting for almost half (43 per cent) and a third (33 per cent) of the total incomes in cash in Techiman and Tamale respectively. Studies have also revealed several challenges to urban agriculture in Ghana. For instance, there is a struggle for space due to urbanisation and the preferential use of urban land for residential purposes (Ayambire et al., 2019). The challenges also include access to land and legal issues informing the practice of urban agriculture.

3. Local economic development and urban agriculture

The world over, governments have the responsibility to provide for the social and economic well-being of the citizenry. This means that governments must take appropriate steps to implement development strategies that will provide the greatest social and economic benefit to the citizenry. This requires the adoption of relevant and appropriate local development strategies to ensure that development responds directly to the needs of the local people. One important development strategy that can be adopted for people within all communities to see evidence of sustainable development is an LED strategy (Mensah et al., 2017, 2019). The concept of LED has been variously defined but the general idea revolves around a developmental strategy that is not only territorially based but owned and managed with the involvement of the local people with the primary aim of increasing employment and economic growth of the territory (Meyer-Stamer, 2004; Mensah et al., 2013b).

The concept of LED is grounded in the theory of endogenous development – the assumption that the enhancement in the socio-economic development of a locality can be realised by deliberately recognising and stimulating the combined resources of the locality itself (Ray, 1997; Azunu & Mensah, 2019). The emphasis on endogenous development has been very much upon what local areas can do for themselves and support the growth of the local economy. Therefore, the idea of LED is different from the traditional top-down exogenous development approach. As noted by Vazquez-Barquero (2002), LED is an endogenous approach that emphasises satisfying the socio-economic needs

and demands of the local people using local resources and their active participation in the development process.

It is generally considered that urban agriculture is connected to food security, social welfare, and LED (Rogerson, 2003; Thornton, 2008) and has great potential in the development and boosting of local urban economies (Hampwaye et al., 2007). Within Sub-Saharan Africa, research evidence has pointed to the role of urban agriculture as a means of economic livelihood (Floquet et al., 2005; Reuther & Dewar, 2006). Similarly, Mougeot (2005) has found that in many African cities, urban cultivation plays an important role in the development of community welfare. Confirming this, Gogwana (2001) contends that particularly for the urban poor, urban agriculture is a valuable socio-economic activity and as such should be given the needed institutional support and recognition by urban authorities.

It is therefore not surprising that in South Africa, municipalities have been encouraged to support urban agriculture projects in the form of grants, community development, building a supportive relationship with NGOs, sustainable livelihoods, micro-farming, and including food gardens in LED programmes as well as releasing municipal vacant lands to urban cultivators for use. Such support also includes efforts to encourage ward councillors to engage in urban agriculture and more importantly make urban agriculture a key component of local internal development plans (Moodley, 2009). This is significant as institutional support is imperative for the promotion of urban agriculture through top-down efforts with the power to improve, coordinate, support and maximise the benefits of urban agriculture (Lovell, 2010). Again, Gogwana (2001) is of the view that urban agriculture should be given greater institutional support and recognition because it is a vital socioeconomic activity, especially for the urban poor. Despite the importance of urban agriculture, the practice has encountered numerous challenges. As noted by Nicklay et al. (2020) support for urban agriculture is largely inadequate and inequitable, especially regarding planning policies of access to land, development pressures, financial barriers, and gentrification.

4. Methodology

4.1. Study area

This study was conducted in the Tema Metropolitan Assembly (TMA) and Ga East Municipal Assembly (GEMA) in the Greater Accra Region of Ghana. These assemblies are noted as leading examples of urban agriculture in urban Ghana (Armar-Klimesu and Maxwell, 2002) and LED in Ghana (Akudugu, 2018; Mensah et al., 2019; Mensah, 2023). The TMA is located 30 km East of Accra, covers an area of about 121 km² and shares borders with eight other Districts Assemblies. The main goal of TMA is to bring governance and development close to the people. Even though TMA is an urban assembly, agriculture still contributes to about 5% of its economy. The GEMA covers a land area of about 96 km², located in the Northern part of Accra with its capital at Abokobi. It shares a border with five other districts with 55 per cent of its active population engaged in farming as the major economic activity. These range from livestock to crop production as well as the production of a variety of vegetables such as garden eggs, tomatoes, okra, pepper, and cabbage.

4.2. Data collection and analysis

The study adopted a qualitative research design based on the interpretive methodological orientation. This is because the study was interested in understanding the contribution of urban agriculture to the development of the urban local economy, the policy, and institutional support as well as the challenges of urban agriculture from the perspective of urban local authorities and urban agriculturalists. As noted by Malterud (2001:483) qualitative research is useful for the exploration of meanings of social phenomena as experienced by individuals themselves, in the natural context.

To achieve this study's objective, participants were carefully selected. The participants for this study are made up of urban agriculturalists and municipal authorities. As indicated by Creswell (2012) qualitative research seeks to purposefully select participants that will best help the researcher understand the problem and the research question. Similarly, the urban agriculturalist will be in a position to provide their opinion about how the urban economy improves the local economy as well as their challenges while municipal authorities could speak from the perspective of the role of urban agriculture on the local economy and the policy aspect. In total, thirty respondents were involved in this study, comprising twenty-one urban agriculturalists and nine municipal authorities. The use of multiple stakeholders and respondents helped reduce biases in data sources and increase the validity and reliability of the research conclusions.

Data collection for this study comprised focus group discussions and key informant interviews. Thus, there were three focus group discussions comprising seven participants each with urban agriculturalists while one on one interviews were conducted with nine key municipal authorities. The focus group discussions took between one-hour-forty minutes to two hours. The individual interviews however lasted between forty-five minutes to one hour. The interviews were guided by an interview guide. Overall, the interviews captured the contribution of urban agriculture to the development of the urban local economy, policy, and institutional support for urban agriculture as well as the challenges of the urban agriculturalist. The study also used secondary data from the two assemblies especially training documents from the agriculture department and the medium-term development plans.

The interviews were audiotaped, transcribed, and common themes were generated for the write-up. The study adopted thematic analysis because it allows for comprehensive data synthesis and flexibility (Braun & Clarke, 2006) and as such offers the opportunity to provide rich thematic descriptions of the field data for the audience. We adopted Braun & Clarke's (2006) six-step approach for conducting thematic analysis, namely familiarising ourselves with the data; developing and applying deductive and inductive codes; exploring themes in the relationships between codes; reviewing and refining the themes and fundamental code relationships; name the themes and writing the results. In addition, verbatim statements were used to substantiate the arguments that were made. To ensure confidentiality, respondents were anonymised with pseudo names such as urban farmers (UF) and municipal authorities (MA).

5. Findings

The section of the paper provides the findings from the field. The findings have been categorized based on the contribution of urban agriculture to the urban economy, policy, and

institutional support for urban agriculture as well as the challenges of the urban agriculturalist.

5.1. Contributions of urban agriculture to local urban the economy

Urban agriculture has been long recognized as important in the development of sustainable cities. The findings of the study showed that urban agriculture is important in boosting the urban economy in terms of job creation for farmers. Whereas production levels may not necessarily be high, urban agriculture can contribute to the urban local economy by generating employment and generate income for those involved in it. Respondents have indicated that they have been employed because of urban agriculture. As noted by this respondent.

For me, urban agriculture has given me a job, this is what I do full-time with my family. I also believe that those who come here to buy from us have also gotten jobs because of urban agriculture, that is why I believe employment is the biggest advantage of urban agriculture. (UF 10)

Apart from the farmers, urban agriculture further generates employment opportunities for farm labourers, food transporters, market traders, and food vendors. Drivers transport food from the farmers to markets, market traders get food produce to sell, and food vendors keep their business going through supplies from urban farmers. This could be a long chain, the direct and indirect jobs created in the chain are enormous. This is illustrated by the respondent below:

I believe urban agriculture in this municipality keeps a lot of people in employment. The number of small trucks that carry food from farms to the markets on daily basis is many. There is a section of the market here that is noted for selling fresh farm produce and this produce is from these urban farmers. (MA, 3)

Similarly, urban agriculture has contributed to the urban economy in terms of income generation. Urban agriculture has become the main source of income for those who are engaged in it. According to the respondents, this income comes in various forms – the sale of produce by the farmers, the payment of labour cost (daily wage) to labourers as well as several indirect people who are connected to urban agriculturalists in several ways for their source of income. The income perspective of urban agriculture is echoed by this respondent as follows:

This job is our main source of income, and I must admit that it is a lucrative venture. The income is not bad at all, it is enough for me and the family. I pay for my children's schools from the money I make from here; I also send money to my family back in the village. (UF 3)

The findings further showed that urban agriculture has multiplier effects through the process of keeping money within the local economy. In this process, money changes hands between the local people. From the farmer to the transporters and local food vendors, money is circulating in the local economy and strengthening it.

5.2. Policy and institutional support for urban agriculture

Recently urban agriculture has become a challenge requiring some policy and institutional support. In the agricultural sector at the local level, the department of agriculture

plays a critical role in supporting farmers. Urban areas have different characteristics, especially in terms of competing demands for land for different purposes – residential, industrial, and agricultural. This is the more reason why institutional and policy support is critical for urban agriculture. It was found that the department of agriculture plays a key role in supporting urban agriculturalists in several ways, especially training and farm visits. In the interviews, one of the respondents indicated as follows:

As a department that is solely established to support farmers, we carry out the farm and home visits to engage with the farmers. We give them the necessary training on farming and use of farm technologies and advise them on how to improve on their yields. (MA 2)

Similarly, farmers indicated that they are in touch with Municipal agriculture officers for several support most importantly in the area of training and introduction to new technologies. This is important as it is a form of supervision and giving feedback to farmers about their farming practices. This can be sensed from the response below:

The agric officers have been very helpful to us, they visit us and show us a lot of things. I remember last year; I was invited to a workshop, and I learned so much, especially about how we apply fertilizer and weedicides. As I speak with you, I now know how the quantity and timing that I should apply fertilizer, weedicides, and more importantly the quantity to use. (UF 5)

On the policy support part, the study examined secondary data from the municipalities used in this study. The Tema Metropolitan Assembly in its Medium-Term Development Plan (2021-2024) had made provisions for urban farmers in terms of field visits by agricultural extension officers, the formation of farmer-based organisations, and the use of farm demonstrations. Similarly, the MTDP (2021-2024) of the Ga East Municipal Assembly had a programme on accelerated agriculture modernization and sustainable natural resource management that seeks to improve agriculture productivity. Specific activities in this programme include training, value addition and food packaging, provision of extension services, and linkage to agro-processing centres. As indicated in the document, fifteen technologies had already been demonstrated to 3,257 farmers in the Municipality by agricultural extension agents. In this same plan, the Ga East Municipal Assembly indicated that it would create land banks to be given to farmers.

5.3. Challenges of urban agriculturalists

The practice of urban agriculture in the studied areas has encountered some challenges. The challenges ranged from individual, institutional and policy dimensions. Among the popular challenges are issues of land, lack of capital, the poor market for produce, lack of government support, and lack of irrigational facilities. The issue of land has become a big challenge to urban farmers because they compete with estate developers who buy these lands at higher prices for residential buildings. This makes it difficult not only for farmers to get access to farmlands but also for the price of the land.

Similarly, farming is labour-intensive and requires financial resources to start and maintain a farm. However, respondents indicated that there is a lack of capital to maintain the farms. Attempts to also get funding/loans from commercial banks have been a challenge as they don't have the required collateral to access the loan. Respondents also complain about the inability to buy irrigation facilities and therefore rely on

simple methods such as handheld water cans – a tedious way of irrigation. The challenges of urban farming have been lamented by a respondent as follows:

Even though I have so many challenges, the biggest of all is access to land. The issue is estate developers have bought all the land; the chiefs prefer to give the land to the estate developers because they pay higher. I have been farming for more than ten years now, but I have to also change the place I farm when the land is sold out. (UF 7)

In lamenting the challenges, another farmer intimated as follows.

Those of us here farm on government land, so I can say we may not have challenges relating to access to land. Rather, we lack irrigational facilities, we just use handheld water cans to water our farms in the dry season. Also, the other challenge is the cost of farm inputs, they are expensive and sometimes we don't even get the fertilizer in the market to buy. (UF 11)

Local government authorities also commented on the challenges facing urban farmers in their municipality. The statement below illustrates the challenge of urban farmers from the perspective of local government authorities.

There are a lot of farmers who have served as the source of food for residents of this Municipality. Despite this, they face a lot of challenges, especially capital to buy farm inputs and expand their farms. This has affected them to the extent that they rely on crude farm inputs and farm equipment. (MA 2)

6. Discussion of findings

The purpose of this research is to examine the contribution of urban agriculture to the urban economy, policy and institutional support for urban agriculture, and the challenges of the urban agriculturalist in two municipal Assemblies in the Greater Accra region. Through interviews with urban agriculturists and Municipal authorities and examination of secondary data, the findings of the study are discussed below. First, the findings showed that urban agriculture potentially contributed to the development of the local economy. This comes in the form of employment generation, increase in income, improve livelihood and poverty reduction. Previous studies have revealed that urban agriculture is a major source of livelihood for many cities of the global south because it provides employment (e.g. Darkey et al., 2014; Azunre et al., 2019). Indeed, studies have found that 800 million people are involved in urban agriculture providing about 150 million jobs (Lee-Smith, 2010; Zezza & Tasciotti, 2010) both part and full-time.

The importance of urban agriculture to urban LED goes beyond employment for the direct urban farmer. This is because urban agriculture has a value chain from the farmer to the labourers, buyers of farm produce, food vendors, agriculture input shops, transport operators as well as households. Some evidence of this is available in the literature (ILO, 2013; Amponsah et al., 2016, Azunre et al., 2019). This chain of employment and income generation along the chain is critical as it stimulates the urban local economy. Unemployment has become a major challenge in many countries in the global south especially Ghana – encouraging urban agriculture could be a useful step in not only addressing urban unemployment but also impacting the local economy due to the value chain of urban agriculture. The potential of urban agriculture for the development of local economies is very huge because there are so many people who are employed and survived on

the urban agriculture chain. In other words, the income, employment, and business potential along the urban agricultural chain are great.

The incomes generated through urban agriculture have the potential to improve the livelihoods and welfare of urban residents. As noted by Mougeot (2006) the importance of urban agriculture goes beyond survival to improving the overall welfare and quality of life of the people in the agriculture chain, especially in African cities. Thus, the proceeds from the sale of farm produce generate income for farmers in addition to income from other sources. Similarly, others will generate income by working as labourers, selling farm inputs, transporting farm produce as well as processing and marketing farm produce. From a LED perspective, urban agriculture has the potential to improve the economic viability of the urban local economy through access to employment opportunities, skills development, job training, empowerment of businesses along the urban agriculture chain and development of small businesses and entrepreneurs.

Second, the findings showed that there is policy and institutional support for urban agriculture. The Municipal agriculture department of the studied municipalities has played a crucial role in providing support to urban farmers. This is reflected in the farm visits and training that are organised for urban farmers. In farming, training, and providing the necessary information to farmers is crucial to the yields of farmers. This is because the pieces of training help farmers in the timing to plant, application of fertilizer and farming technology, and harvesting and storage of farm produce. Even more important is the fact that the MTDPs of the studied municipalities captured urban agriculture and the kinds of support that will be given to them. The extant literature has maintained that institutional recognition and support to urban farmers is a significant component in ensuring urban agriculture sustainability (Halloran and Magid, 2013).

It is however imperative to note that this policy and institutional support does not in any way mean that there is legitimation. The interviews did not reveal such nor is there any documentary support to that effect – indeed, there is no conscious effort by the studied municipalities to support farmers to acquire land or financial support. The findings indicate that the municipalities support farmers, but no policy document comprehensively integrates urban agriculture into urban planning. Since urban agriculture provides employment and food security for urban dwellers, especially the vulnerable, the studied municipalities must integrate it into the overall development plan of the municipality. Gogwana (2001) noted that urban agriculture should be given the needed attention because it is an important socioeconomic activity, especially for the poor.

Third, the findings revealed that urban farmers are faced with several challenges that are inimical to the practice of urban farming. Typical among them is the issue of access to land. This is due to the competition for land between estate developers and urban farmers. This is rooted in the theory of ‘highest and best use of land where city authorities prefer to give out or zone urban lands for commercial rather than agricultural purposes (Azunre et al., 2019). Thus, using land in the city for agricultural purposes does not promote the highest value and best use of land. The issue of the lack of farming equipment was also topical among the challenges of urban agriculture. Evidence from previous studies also showed that there has been low support for urban agriculturalists, especially regarding land, finance and pieces of equipment (Nicklay et al., 2020). Today’s agriculture has changed to the extent that most of the processes of farming have been

mechanised to increase output. However, urban agriculturalists lament their inability to acquire farming equipment to improve their farming business, especially farm inputs like fertilizer, insecticides, and improve seedlings. The resultant effect is low productivity thereby impacting their incomes. Eventually, this trend has implications for the entire urban agriculture chain and the urban local economy.

The growing trend of urbanisation shows that cities will need a lot of support ranging from housing to water, security and most importantly food. Urban food security will be very challenging and that is why urban agriculture must be given the needed attention. There is a need for municipal and local government authorities to seriously integrate urban agriculture into urban planning. There are a lot of open spaces and government lands that are currently not in use which can be given to urban farmers temporally for agricultural purposes. Cities authorities can also demarcate low-lying lands and wetlands in the city for urban farmers rather than the practice where such lands are sold to estate developers which eventually causes flooding during rainy seasons.

There is a need to support urban farmers in finding financial support that can be used to hire labour and buy farm equipment and inputs. This will help to improve the productivity of their farm produce which will eventually impact the chain. The municipal authorities especially the agricultural departments should provide the needed research and extension support for urban agriculturalists. Municipalities have the crucial responsibility of supporting urban farmers through collaboration with national authorities and international partners. Indeed, governments at all levels should increase their investment in urban agriculture and create conditions for its positive necessary development.

7. Conclusion

Urban agriculture has gained attention over the past three decades to support food security needs and enhance economic opportunity for urban dwellers, especially the poor. The practice of urban agriculture is important for ensuring the utilisation of available urban space for agriculture with its attendant environmental benefits for urban dwellers. Based on the estimates that two-thirds of the world population will live in urban areas, the sustainability of these cities to a large extent in the global south will depend on how urban agriculture will develop in this part of the world. It can be concluded that if properly supported, urban agriculture can improve the local economy because of its multiple benefits of employment, income, and improved livelihood and food security. Similarly, there is institutional and policy support for urban agriculture as shown by farm visits and training that are organised for urban farmers. Finally, it can be concluded that despite the contribution of urban agriculture to the urban economy and support from urban authorities, urban agriculture is still constrained by access to land and a lack of farming equipment, eventually impacting on farm yields. There is a need for municipalities and urban planners to incorporate urban agriculture in urban development and spatial plans to ensure that the practice becomes sustainable to boost the urban local economy, especially in the global south.

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