

The Role of Urban Agriculture in Alleviating Poverty Facing Women in Tanzania: A Review

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Abstract

This paper examines the role of urban agriculture in alleviating poverty facing women in Dar es Salaam Region in Tanzania. This is a review paper where different literatures including books, reports and journals have been surveyed to answer the identified specific objectives. The findings proved that women's participation in urban agriculture contributes to food security, increases household income, offers employment and reduces poverty. This review paper also found that women engaged in urban agriculture are able to get an average net income of Tshs 58,356.2 per month. Urban farms make the life in the city much easier by creating jobs for women and other family members engaged in it. Urban agriculture offers ecological benefits by reducing the city waste, improving urban biodiversity and air quality, and reducing the environmental impact related to soil erosion and land degradation. Despite its contributions, there are number of bottlenecks facing women's involvement in urban agriculture such as poor markets, water shortage, land shortage, seeds unavailability and lack of capital. Other constraints include unavailability of inputs, crude working tools (hand hoe), lack of government support, lack of water pumping machines for irrigation, poor storage facilities and lack of agricultural extension services. It is recommended that urban farmers should be assisted in transforming the practice of traditional farming into modern, sustainable and environmentally friendly ones in order to increase productivity.

Keywords: Farming, Livestock keeping, Poverty, Urban agriculture, Women

Introduction

According to FAO (2012), 3.1 billion people, 45% of all human in the world live in rural areas. 2.5 billion of whom derive their livelihoods from agriculture (FAO, 2012; 2016). Agriculture is an important

component of the economy of many developing countries as it significantly contributes to domestic food production, employment and revenues of different countries (FAO, 2016). The urbanization process has gradually increased urban poverty (Gamhewage *et al.*, 2015). Increasing urban poverty simultaneously has increased the malnutrition and food insecurity in the urban areas (Baker, 2012). According to the World Bank, poverty refers to a situation where a person is living on less than US\$1.90 per day. This is in line with FAO (2012a) which found that high prevalence of poverty is among urban residents in Sub-Saharan Africa where majority of people survive on less than US\$1 a day and poor housing is among the most glaring manifestation of urban poverty in Africa. Small scale agriculture is one of the economic activities practiced in urban areas and it supports livelihoods of people residing in urban areas (Mougeot, 2000; Mhache, 2015). It is estimated that about 40% of the urban population in Africa is involved in urban agriculture (Mougeot, 2000). Urban agriculture has received increasing attention throughout the developing world (Hamilton *et al.*, 2013).

In Tanzania, urban agriculture is a very common practice and it involves livestock keeping and cultivation of crops (Mntambo, 2012). In Tanzania, some urban dwellers depend entirely on urban agriculture for their livelihoods (Mhache, 2015). Within the informal sector, although an estimated 35.75% of all operators and 34.33% of all employees are women (Mlozi, 2004), the percentage of women involved in urban agriculture is unknown. Urban agriculture ensures food security and income of the people engaged in it in Developing Countries including Tanzania. The agriculture practiced in urban areas is different from the agriculture practiced in rural areas in terms of land size, crops grown (perishable in nature) and type of the people doing it.

Farming and types of crops cultivated in urban areas include onions, carrots, tomatoes, spinach (*mchicha*) and others. These crops are produced both for domestic consumption and for sale. Urban agriculture in Dar es Salaam is practiced in small land size ranging from 0.25 to about 0.75 acre (Jacobi *et al.*, 2000). In this article, urban

agriculture denoted farming and livestock keeping in urban areas. Urban agriculture is an industry located within or on the fringe of a town which grows or raises diversity of food and non-food products (Mougeot, 2000; Mougeot, 2000a). Foeken *et al.* (2004) pointed out that urban agriculture is a common undertaking in most Tanzanian townships and that it is undertaken for both subsistence and commercial purposes. Crops involved in urban agriculture among others include cassava, carrot, cucumber, lettuce, maize, beans, flowers, bananas and livestock keeping among others.

Urban agriculture is defined as production in the home or plots in urban or peri-urban areas. Urban agriculture is the practice of livestock keeping and cultivation of crops in the town or in the city (Nzimande, 2013). As such, it is in most of the cases an informal activity quite difficult to characterize with accurate data and trends (Ruel *et al.*, 1998). Urban agriculture is an activity carried out by both male and female. It is an important source of income for low income households and for female-headed households in urban areas. Small capital, reliable market of crops and small piece of land required are among the reasons for more females to be involved in urban agriculture. Among the characteristics of urban agriculture include ease of entry, reliance on indigenous resources, small scale of operations, labour intensity and lack of formal training (Howorth *et al.*, 2000; Mntambo, 2012).

Urban agriculture provides a better opportunity for additional income by selling the excess produce. A study by Mhache (2015) conducted in Dar es Salaam and Morogoro Regions that focused on the role of urban agriculture in poverty alleviation identified a number of reasons influencing urban people to involve in urban agriculture such as source of income and food. Maxwell *et al.*'s. (1998) study in Ghana identified the constraints faced by women farmers which hamper their participation in urban agricultural activities. Such constraints include lack of capital, lack of seeds and unreliable market as constraints to urban agriculture. Several studies regarding the role of urban agriculture in breaking the poverty of women have been done in different areas (Mntambo, 2012; Mlozi, 2004) but no specific study for Dar es Salaam Region. This review paper is designed to

bridge this gap. The main objective of this paper is to assess the role of urban agriculture in alleviating the poverty facing women in Dar es Salaam Region, Tanzania. The specific objectives of this paper are (i) to identify factors influencing urban agriculture (ii) examine the contribution of urban agriculture in alleviating poverty facing women and (iii) determine constraints facing women participation in urban agriculture in Dar es Salaam Region.

Research Methodology

This is a review paper where different literatures from scholarly articles, journals, books and internet web pages were used to review the role of urban agriculture in alleviating poverty facing women in Dar es Salaam Region in Tanzania. This paper is thus a library study and adopted critical review and analysis in reviewing books and articles in interdisciplinary agriculture studies journals and from food and agriculture bodies from such organizations as FAO. It is based on basic agricultural issues, urban agriculture, problem of food security and women income in urban agriculture.

This paper addresses literatures from Tanzania and other parts of the world. A good strategy for data collection is important for the study to generate the intended results (Tonya, 2015). A selection of strategic writing and paper related to the topic was done. This was a good strategy to ascertain the role of urban agriculture in alleviating poverty facing women in Tanzania. In this review paper, key concepts were identified and clarified. Examples of such key concepts are poverty, poverty alleviation, gender and urban agriculture. Then systematic literature review was done to identify recent and suitable references, whereby about 77% covers literatures published from 2000 – 2018 year. The analysis intended to assist women to cope-up with their life/ livelihoods. The knowledge generated in this paper will support decision makers to put in place strategies to empower women economically and be able to contribute to economic development of their families and nation at large. About 31 journals and books were reviewed for this paper.

Findings

Factors influencing urban agriculture

Agriculture is denoted as an activity involving farming and livestock keeping. Agriculture provides both food and cash crops from which people get income and the government gets revenue and forex. The government is supporting agriculture in different ways such as setting directive of price of agricultural produce, subsidizing fertilizers and pesticides, allocating veterinary officers and extension officers to rural and urban areas to support farmers and livestock keepers. Urban agriculture is undertaken in urban areas wherever land is available (Foeken *et al.*, 2004).

Urban agriculture is practiced in small scale because of limited size of the land available in urban areas which most of the sizes of the land are less than one acre (Mvena *et al.*, 1991). Marginal lands such as flood areas or/ plains and swamp areas are used for urban agriculture. Crops involved in urban agriculture are determined by the type of soil, climate and size of the land available. Crops grown in urban areas include various types of vegetables, fruits (oranges, mangoes, water melon, pineapples, pawpaw etc), maize, beans, bananas and cassava, to list a few. Animals kept in urban areas include dairy cattle, goats, sheep and poultry. In their studies, Mvena *et al.* (1991) and Mhache (2015) identified livestock kept in urban areas as poultry, goats, sheep, pigs and dairy cattle.

According to Sawio (1998), numerous actors of urban agriculture have been involved in the practice including men, women, elderly, professionals, educators, administrators, and the majority of the unemployed and the urban poor. It was further observed that, urban agriculture contributed significantly to the survival strategy to the urban poor and enhanced urban food security (Sawio, 1998; Mvena, 1999; Mhache, 2015).

Urban agriculture is one of the activities in urban areas supporting food and income of the people involved in it (Sawio, 1998; Mhache 2015). Most people in urban areas are engaged in urban agriculture due to lack of employments in private or in government organizations and they thus opt for urban agriculture as a way of

creating self employment. Other people are engaged in urban agriculture as a way of getting money (income) to finance their livelihoods/ survivals. Thus, income is another reason which influenced people especially women and the poor to engage in urban agriculture. Some women or housewives are engaged in urban agriculture as a way of subsidizing their families' income.

Available or ready market of urban agriculture produce has also influenced women to be engaged in urban agriculture. There is a reliable and stable market of the products of urban agriculture. Whatever is produced in urban agriculture gets to market; everyday people prefer to buy products like vegetable and related products. Not many people can buy vegetables which can last for a week, unless one has a fridge as most of the urban agriculture products are perishable. Another factor instigating urban agriculture is the small capital required to initiate urban agriculture since one only needs a plot, seeds, organic manure and water. With capital of Tshs 30,000/= or less one can start farming in urban area.

Contribution of urban agriculture in alleviating poverty facing women

Sustainable Development Goal One (SDG1) is focusing on "end poverty in all its forms everywhere". Urban agriculture is practiced to empower and reduce the poverty facing women. Urban agriculture is used as a tool of alleviating poverty facing both women and their families. The reasons for urban agriculture are inter alia the provision of income, food and support livelihoods of the people. Not all people residing in urban areas have means of survivals, alternatively engaged in urban agriculture. This situation influenced people to engage in urban agriculture to support their families' livelihoods. Benefit of urban agriculture is evidenced by 100–200 million urban farmers worldwide providing the city markets with fresh horticultural goods (Orsini *et al.*, 2013). Produce from urban agriculture helps to supplement the diet and save on food expenses. Women practice urban agriculture as a strategy of poverty reduction. This part focuses on the contribution of urban agriculture through

provision of food security and food quality, employment, income, agricultural education to the family and socio-economic benefits.

Provision of food security

Food security is consistently having access to, availability and being able to afford nutritious, safe and enough food. Traditional agriculture does not guarantee constant food security for the growing population and urbanization. Food production should be further executed using proper technology, applying irrigation, using proper seeds, following advice of extension officer and planting and weeding in time. It is recommended that urban space should be reconsidered to exploit more space for cultivation and food production in order to improve the level of food security. Urban agriculture has opportunity of improving food security by providing healthy and fresh food to urban families. In most cities and towns many people do not have access to affordable and healthy food because of inability to buy or produce their own food. Urban agriculture helps to correct this by reducing the price of healthy food by eliminating the middleman and increasing the opportunity for community members in need to participate in the growing of food.

Families engaged in urban agriculture are more likely to have access to wider variety of nutritious food such as vegetables, fruits and animals' meat and poultry products. Apart from farming, women are also engaged in livestock keeping. Livestock in this paper includes cows, goats, sheep, pigs and poultry. Livestock provides income, milk, eggs and meat. Urban agriculture can be a resilience mechanism for women in low income households' emancipation from poverty. Urban agriculture is important in supplementing food at home hence plays a key role in mitigating problems of food shortages (Sawio, 1994; 1998). In Dar es Salaam, urban farms provide 90% of the city's leafy vegetables and over 60% of its milk (Jacobi *et al.*, 2000). Smaller scale local markets provide the opportunity for farmers to foster more unique varieties of produce. Although the full potential of urban agriculture is still to be determined; based on literature review, raising fresh fruits, vegetables and animal near consumers in urban areas can improve food security and nutrition, especially for underserved communities.

Employment and income

Urban agriculture offers informal employment mainly to women who are engaged in it for sale and for money (income). Most of the produce in urban agriculture is perishable thus it has to be sold immediately thus giving money to women and their families. Income from urban agriculture is particularly high in most African cities. In Bamako, Mali and Dar es Salaam to list a few, the economic return to urban farmers has been estimated to be comparable to the income of unskilled construction workers (Simatele and Binns, 2008).

Women engaged in urban agriculture improve their economic situation through using the income they get to finance their families' needs. The income obtained from urban agriculture is used to build houses, pay school fees for their children and pay for medical treatment of their family members, among others. Since the poor people (people living under one dollar a day) spend up to 85% of their income in food purchase and most urban farmers belong to poor populations, urban agriculture has emancipated many women from the poverty line.

Ecological benefits of urban agriculture

Urban agriculture has ecological benefits by reducing the city waste, improving urban biodiversity and air quality, and reducing the environmental impact related to both food transport and storage (Orsini *et al.*, 2013). By localizing produce, urban farms cut down on the significant amount of fossil fuel consumption necessary to transport, package and sell food items. Urban agriculture is part of the urban ecological system and plays an important role in the urban environmental management system. It is obvious that, a growing city produces more and more wastewater and organic wastes which can be used in urban agriculture. Urban agriculture can help to solve such problems by turning urban wastes into a productive resource. Water used in washing clothes, cleaning the houses, water and waste water from wash rooms can be treated and used in urban agriculture. Tree

planted in urban areas help to sequester carbon produced from vehicles and factories.

Constraints facing women participation in urban agriculture

Urban agriculture is obviously contributing to the livelihoods of many families in urban areas. Despite its contributions, there are number of bottlenecks facing women involvement in urban agriculture. Constraints facing urban agriculture include poor markets, water shortage, land shortage, unavailability of seeds and lack of initial capital. Other constraints are unavailability of inputs, crude working tools (hand hoe), lack of government support, lack of water pumping machines for irrigation, poor storage facilities and lack of agricultural extension services.

The first challenge facing urban agriculture is getting market of the harvest timely and securing good prices of the harvest. Most of the crops involved in urban agriculture are perishable in nature (vegetables, carrots, tomatoes, lettuce, pineapples, mangoes, oranges and others). They need market immediately to avoid getting damaged and rotting which would lead to loss of the expected benefits. In most urban areas like Dar es Salaam City, shortage and unavailability of water for irrigating farms/ gardens is another bottleneck to urban agriculture. The study by Sawio (1998) showed that, water in urban areas is used for domestic and industrial uses; getting water for irrigation is a last resort and is difficult. Sometimes waste water is used which is not safe for human health. In some areas like Jangwani Valley and Bonde-la-Mpunga in Dar es Salaam Region, people used polluted water from industries which have dangerous elements like zinc, iron and other heavy metals which are dangerous to human health.

Urban agriculture is not free from diseases. The literature reviewed indicated diseases as another challenge facing farming in urban areas. Some diseases are naturally caused while others are a result of ignorance; if the causes of diseases are not controlled urban agriculture cannot be beneficial to people, mainly women involved in it. Diseases mainly facing urban farming include blight, canker, leaf-

curl, leaf-spot, powdery-mildew, root-rot and wilt, to list some. These diseases reduce the expected output of urban farming. Shortage of agricultural officers and extension officers to support urban farmers was another constraint facing urban agriculture. Most of the agricultural officers work in rural areas, thus it is difficult to get them in urban areas. Even if one manages to get them, they are very expensive. Thus many urban farmers do not use these agricultural officers.

Getting proper seeds and in time was difficult in urban areas. Some seeds had expired resulting into lack of germination. Fertilizer is one of the important ingredients to urban agriculture. People involved in urban agriculture do not use fertilizers as a result they end up getting poor harvest. Urban farmers do not use fertilizers and pesticides because they are very expensive while other people practicing urban agriculture do not have knowledge of using fertilizers and pesticides. Coupled to availability and high prices of fertilizers, sometimes it was difficult to get proper fertilizers in time and in affordable. Alternatively farmers preferred using manure because it was available for free or at very low price.

Another challenge facing urban agriculture is floods and water logging. In most cases, urban agriculture is practiced in lowland areas, areas susceptible to floods. Floods and water logging is a problem facing lowland areas like Jangwani and Bonde la Mpunga in Dar es Salaam and areas close to rivers. In case of overflowing of rivers, water sweeps all crops grown or planted along the rivers. Some women get loss of their crops because of overflowing of rivers. Apart from floods was drought. Long time without rains leads to stunting of crops, then crops died due to shortage of water. During drought time there is no natural flow of water in most urban areas and resorting to using tap water for irrigation is very expensive and not affordable.

Eviction of farmers and destruction of their crops is another threat to urban agriculture. Eviction of farmers done by municipalities' leads to destruction or damage of crops as urban farmers are not given

notice in advance to vacate (Sawio, 1998). This process of eviction leads to loss of crops, money and energy people have incurred to prepare the land, growing and taking care of the crops. Another challenge to urban agriculture is theft. Thieves steal crops from the farms during the night.

Domestic animals (goats, sheep and cattle) and poultry (chicken and ducks) is another serious problem facing urban agriculture. Animals kept in urban areas feed on crops leading to damage of crops. In some areas animals are freely feeding in the urban areas. Chickens have been pointed in the literature as an issue which has caused conflicts between several families as they feed on crops such as maize and *mchicha*. Some families do live with chicken in the same house which forces them to release them early in the morning feeding on the neighbors' crops or farms.

Discussion

According to Foeken *et al.* (2004), urban agriculture is a common undertaking in most Tanzanian townships and that it is undertaken for both subsistence and commercial purposes. Urban agriculture poses various benefits to urban women and their families. The main benefits obtained from urban agriculture comprise of socio-economic benefits, food security, nutrition and family health (Bishoge and Suntu, 2018). Among these benefits, food and economic benefit receive high attention (Mhache, 2015; Bushesha, 2018). Other people are engaged in urban agriculture for income and employment. According to Smit *et al.* (2001), urban agriculture has proved that economic benefits are essential as the environmental and nutritional benefits. Most studies are in congruency with the observation that urban agriculture contributes significantly to urban food security and household income generation (Bushesha, 2018; Mhache, 2015; Foeken *et al.*, 2004; Dongus *et al.*, 2001).

According to Smit *et al.* (2001), the major economic benefits of urban agriculture are income generation, employment and the development of national agricultural sector. Urban agriculture is crucial to reduce the expenditure on food consumption of the family (Kutiwa *et al.*, 2010). Growing food and non-food crops in and near town and cities

contributes to healthy communities by engaging residents in work and pleasure that improves their well-being. In fact, there are few robust analyses that measure the actual social, economic and health impacts of urban agriculture; it is obvious that, improved urban agriculture contributes in food security. With rapid urbanization and population increase, urban agriculture has evolved from a simple and traditional activity into a commercial and professional activity (FAO, 2008). The study by Mhache (2015) and Foeken (2004) found that, urban agriculture is an important activity for people mainly women residing in urban areas. Women were engaged in urban agriculture because of many reasons such as small capital to buy seeds, hoe and big knife (*panga*). Urban agriculture can be done by everyone because it does not need to have higher education and big capital.

For women, food security and income are the main motivation for engaging in farming in town, and for some it is a survival strategy (Foeken, 2004). Nevertheless, many of the urban poor engaged in urban agriculture sell some of their produce not only to enable them to afford other basic household needs such as buying food, paying school fees and medical treatments but also because some crops are perishable and cannot be stored and/or because storage space is not available. Almost 50% of the crop cultivators consider crop cultivation activities in town as their major food source. Yet quite a number of households sell some of the crops they produce. People have used the income obtained from urban agriculture to build houses, paying for school fees for their children and paying treatment costs for their families.

Urban agriculture is not free from constraints. The constraints facing urban agriculture vary from one urban area to the other; some constraints are natural and some are human induced. Through literature review, different constraints facing women participation in urban agriculture were discovered. Some of the challenges facing farming in urban agriculture included poor markets, water shortage, land shortage, seeds unavailability, lack of capital, unavailability of inputs (pesticides and fertilizers), crude working tools, lack of government support, lack of water pumping machines for irrigation

(during the drought), lack of man power, poor storage facilities, and poor/ lack of agricultural extension services. It was also found that, most of the people involved in urban farming do not have title deeds the land and lacked land tenure which makes them susceptible to eviction. Eviction has left some people with nothing as their crops got damaged. Also lack of land tenure does not allow people to grow perennial crops such as planting fruits like mangoes, oranges, coconut, guava, lime, avocado, banana and jackfruits. These are the main constraints facing urban agriculture in Tanzania and other urban areas in Africa. It is true that, in most urban areas there is no land left for urban agriculture. People on their own-will cultivate wherever they see free land.

Through literature review it was discovered that, challenges facing urban farmers are unreliable markets, low prices of crops and price fluctuation. Vegetable growers during the peak seasons, prices usually go down significantly due to bumper harvest to the extent that vegetable growers failed to break even. The problem of unreliable markets is compounded by low/poor technology whereby produces are sold raw since no processing is done to improve preservation and sell when the price is good or is high. Low and lack of capital is a hindrance which does not enable farmers to process their crops in order to add value and preserve crops for the future sale. Lack of capital also limits farmers from buying farming machines and implements. Due to lack of capital farmers in urban areas could not afford water pumping machine to draw water from a nearby river channel. As a result, farming becomes labor intensive which is less profitable. FAO (2012) noted similar findings that, vegetables grown in Tanzania urban areas are highly perishable and that production is very low-tech based, and it is basically based on such simple farm tools as hand hoe and watering can.

Land is a problem to almost urban all farmers, majority of the farmers have less than 0.5 acre for agricultural activities. This is contrary to the Town and Planning Ordinance of 1992 which recognizes urban agriculture as one of the country's developmental strategies and thence forth it sets a limit of 1.2 ha of land per urban farmer (FAO, 2012). Seed is another challenge facing farmers in urban areas. In the

literature, farmers reported that, seeds for some vegetables are hardly available; such vegetables include chilly, elephant tomatoes, spinach and Chinese. In some cases seeds perform poorly in terms of germination. Furthermore, farmers noted that extension service is poor as they hardly receive any agricultural officers who could otherwise assist them with relevant advice and ultimately improve production and productivity.

Urban agriculture is undertaken mainly by women for both subsistence and for commercial purposes. Many of the women involved in urban agriculture are housewives as a way of subsidizing income of their families while others are separated, widowed or single (not married). Thus, these women rely on urban agriculture as a strategy of getting food, income and employment. Thus, this article concluded that food and economic benefit are the major benefits and roles of urban agriculture. Growing food and non-food crops in and near town and cities contributes to healthy communities by engaging residents in work and pleasure that improves their well-being. For the women engaged in urban agriculture, food security, income and employment are the main motivation for them being engaged in farming in town, and for some it is a survival strategy (Foeken, 2004). The study by Mlozi (2004), found that urban agriculture relieved urban residents from income poverty. Like most farmers with seasonal income, they do not keep records of their revenue and thus it is difficult to calculate profit and loss.

However, the study by Mntambo (2012) found that, revenue per month for *matembele* was Tsh. 40,000, Tsh. 30,000 for Chinese and Tsh 50,000 for Amaranthus in an area of less than 0.25 acre. These estimates varied with the size of the cultivated area, type of agricultural inputs used, water availability as well as productivity. Thus, women engaged in urban agriculture are able to get an average net income of Tsh 58,356.2 per month (Jacobi, 1996; Mntambo, 2012). It is true that, urban agriculture has relieved women from income poverty, employment and food. Poverty is the situation in which a family lives below 1 US Dollar which does not enable the family to get the required food and other necessities. With urban agriculture,

women are able to get income and feed their families, as a result, poverty is reduced. This activity has helped women to deal with marital problems, since they recount through struggles; their husbands had taught them to work hard and earn their own income which is used for taking care of their children. The wife does not have to wait for them to bring money; you buy food from the vegetable sales or pick vegetables to cook for your children". This shows the importance of urban agriculture to women and their families.

Conclusions and Recommendations

Poverty is a situation where people or family fails to meet their basic needs. The World Bank defines poverty as living on less than US\$1.90 per day. In African societies, man is the head of the household; he is supposed to feed the family and finance other activities such as medical treatment, paying for school fees, buying clothes and many others. In comparison, men support the family while women fulfill the family needs with the assistance of men. In the absence of men, women take the responsibility of men. Women practice urban agriculture on a small scale and thus earn little income. The little income women get in urban agriculture enable them to meet their needs such as feeding their families, paying for school fees and medical treatments and paying rents for the house they reside in. On average, urban agriculture gives women engaged in it an average net income of Tsh 58,356.2 per month. Since women engaged in urban agriculture have managed to meet the basic needs of their families, urban agriculture has relieved women from poverty. Apart from farming, women are also engaged in livestock keeping. Livestock in this paper includes cows, goats, sheep, pigs and poultry. This activity provides income, milk, eggs and meat.

It is recommended that the government should monitor the implementation of its policies such as the National Agriculture and Livestock Policy as well as other relevant guiding rules and regulations so as to ensure proper support to urban farmers. Water supply is an important infrastructure for urban agriculture; hence considerations should be made to ensure that urban farmers are provided with the necessary support for them to access water resources for agriculture. Furthermore, as FAO (2012) suggested,

urban farmers need to be encouraged to form cooperatives which can help them to negotiate better prices for their produce. With cooperatives urban farmers can apply for training from by Small Industrial Development Organization (SIDO) on how to process their crops and add value to it. The government at local levels should also assist farmers in terms of access to soft loans with a focus to improve agro-processing units and small industries. Finally, extension officers should collaborate with different stakeholders for sustainability of urban farming.

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