

Changes in Official Attitudes Towards Urban Agriculture in Accra

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Introduction

Urbanization is increasing in African countries. In 2000 the United Nations reported that 38% of Africans lived in urban areas. This figure is expected increase to 55% by 2030.¹ Urbanization presents both opportunities and challenges, but indications for Africa are that the challenges outweigh the opportunities. Unlike many other parts of the world, Africa's increasing urbanization has not been matched by infrastructural and economic development. As Stren has noted, across much of the continent, basic urban services and infrastructure—housing, water supply, garbage removal, road repair, public transportation, health, and educational facilities—are inadequate and in a deteriorating state.² Difficult economic conditions have shrunk job opportunities especially in urban areas. Consequently, many migrants to urban Africa face the reality of unemployment, inadequate accommodation, lack of good drinking water, etc. In the face of an increasing unemployment rate in the urban formal sector, many urban dwellers get involved in informal sector activities to sustain themselves.³

This paper is about urban agriculture, which is one of the most important informal sector activities chosen by urban dwellers in Accra. It explains why officials initially held negative attitudes toward urban agriculture. It also identifies the factors that contributed to changing official attitudes. It is noted that Ghanaian officials began supporting and even encouraging urban agriculture once they realized the importance of the practice. Certain factors beyond their control eventually compelled them to assume a more positive attitude. Understanding the attitudes of officials is vital because urban agriculture cannot be profitable if officials continually frustrate the efforts of farmers.

The cultivation of food crops on a large scale in the public and private open spaces of cities in the developing world is common but has not attracted the research attention it deserves. Therefore, it has been somewhat of an unknown or unacknowledged phenomenon to policy-makers and city planners in general.

Urban agriculture is defined as the practice of farming within the boundaries of towns or cities. Farming in this sense involves crop cultivation, animal rearing, fish farming, etc. In this definition of urban agriculture, the location of farms plays the most important role. An urban dweller who only farms or maintains farms in a rural area is not an urban farmer. There are two main types of urban cultivation, enclosed cultivation and open-space cultivation.

To understand enclosed cultivation one needs to be familiar with building patterns in Ghanaian towns and cities. Normally, a building is constructed on a plot of land that is fenced or walled. People who cultivate in the enclosed areas around their residences are called

<http://www.africa.ufl.edu/asq/v6/v6i3a2.pdf>

enclosed cultivators. Since it is expensive to own houses in urban Ghana (especially in Accra), only successful business people, high government officials, and the relatively wealthy can afford enclosed cultivation.⁴ Although some enclosed cultivation occurs in the center of Accra, most is done in the suburbs.

The term open-space cultivation is used for any cultivation away from the individual's residence. Cultivated land is not enclosed by any wall or fence. Open-space cultivators are usually of lower socio-economic status, i.e., unskilled workers and/or formally unemployed. Most open-space cultivators do not know the owners of the land they cultivate because they cultivate any land that is currently unused. Open-space cultivation occurs mostly around the center of Accra. Enclosed and open-space farmers have different reasons for farming. Most enclosed cultivators get involved in urban agriculture to cultivate vegetables for home consumption, but for open-space cultivators, urban cultivation is a source of income. While the enclosed cultivators largely consume their harvest, open-space cultivators sell most of theirs.⁵

A high percentage of Accra residents are involved in urban agriculture. An official of the Agricultural Extension Services interviewed in 1995/1996 suggested that approximately half of the residents in Accra are involved in the practice.⁶ This is similar to the rates in other towns/cities in sub-Saharan Africa. According to the UNDP, 80% of families in Libreville (Congo), 68% of urban dwellers in six Tanzanian cities, 45% in Lusaka (Zambia), 37% in Maputo (Mozambique), 36% in Ouagadougou (Burkina Faso), 35% in Yaounde (Cameroon) are involved in urban agriculture.⁷ In their study of Kampala (Uganda), Maxwell and Zziwa estimated that 36% of the population was involved in urban agriculture.⁸ The involvement of so many people in urban agriculture indicates its centrality amongst informal sector activities.⁹

There are many reasons why urban dwellers go into agriculture but declining purchasing power for many urban workers is an important contributing factor. Furthermore, urban agriculture is potentially lucrative.¹⁰ The risks of harassment and crop destruction by authorities, loss through theft and predation, and other drawbacks are outweighed by the perceived advantages and gains from urban cultivation.¹¹ The rural background of Accra residents is another reason why many of them choose urban farming over other informal sector activities. Many of them are migrants from rural areas who already possess agricultural skills. Consequently, they choose the informal sector activity in which they have the most experience.

REASONS FOR THE NEGATIVE OFFICIAL ATTITUDES TOWARD URBAN AGRICULTURE

The precarious food situation in Accra suggests that urban agriculture should be a potential area for encouragement and development in that city. So why is urban agriculture still largely unrecognized and unassisted if not outlawed or harassed even in years of food shortage?¹² This section of the paper discusses the main reasons why urban agriculture has not always been encouraged in Accra.

PUBLIC HEALTH CONCERNS

In the past, Ghanaian officials did not encourage urban agriculture because of the supposed hazards associated with it. Generally, officials agree that the use of biocides for pest/disease control can reduce food crop losses, and thus ensure food supplies for the growing

population. However, questions have been raised concerning their effects on human health and the environment.¹³ For example, the use of biocides in urban agriculture has been linked to the bioaccumulation of synthetic organic compounds in aquatic life, particularly fish.¹⁴ Similarly, the World Resources Institute notes that runoff of fertilizers, herbicides and pesticides into urban rivers or streams is a significant source of water pollution. The use of chemicals in food production is also thought to contaminate soils and crops.¹⁵ Biocides like DDT have been linked to the death of birds and have been banned in many Western nations.¹⁶ In 1987 it was estimated that approximately 10,000 people died and about 400,000 suffered acutely from pesticide poisoning in developing countries.¹⁷

During this study, one of the officials of the Agricultural Extension Services expressed his fear of contamination resulting from wrongful chemical use.¹⁸ He mentioned that urban cultivators actually concoct chemicals that might be hazardous to humans. According to this official, the average urban cultivator does not know much about agricultural chemicals, so he considered these home-made pesticides to be dangerous. Therefore some officials argue against urban farming, fearing that uncontrolled chemical use will contaminate urban soils and drinking water.

Official skepticism towards urban agriculture is compounded by assertions that the practice leads to an increase in mosquitoes. It is generally believed in the Ghanaian community that rainwater accumulates in the axils of maize leaves and provides breeding places for mosquitoes. On this basis, some officials argue that, in order to control malaria and other mosquito-borne diseases, farming in towns and cities should be discouraged. Yet the belief that maize crops provide breeding places for mosquitoes was successfully refuted by Watts and Bransby-Williams in their 1978 study.¹⁹ It seems likely that all officials are not aware of this research.

According to Goodland et al, public health in the tropics, where mosquito-related diseases alone afflict millions, necessitates the use of biocides for disease vector control.²⁰ However, the widespread use of biocides often results in the emergence of resistant strains of mosquitoes and other disease vectors. For example, by 1976, forty-three species of anopheline mosquitoes (vectors of malaria) throughout the world had developed resistance to dieldrin, and twenty-four species were also resistant to DDT. Resistance to these biocides by culicine mosquitoes (vectors of yellow fever, encephalitis, filariasis, and dengue) increased from nineteen species in 1968 to forty-one species in 1975. As a result, some officials argue that if urban agriculture were discouraged, the use of biocides would decrease in urban areas. Consequently, the emergence of resistant strains of mosquitoes would be checked.

Other officials advocated the banning of urban agriculture on the grounds that the production of food in the polluted environment of cities is inherently unhealthy.²¹ Officials who harbor this concern note that since urban areas are polluted by emissions from industries and vehicles, food grown in the cities is not fit for human consumption. A study conducted by Anku et al amplifies this concern when it warns about "the potentially harmful impact on human health of growing vegetables in the urban environment... through the potential plant uptake of industrial pollutants in the soil, water, or air."²² In addition, some officials argue that uncontrolled animal husbandry within urban areas compromises public health.²³ For example, in the Accra study, the officials shared the view expressed by an official of Ghana's Department

of Parks and Gardens who said, “animals in the city [Accra] are sources of bad odors. In addition, there is always the risk of spread of diseases by animals roaming the streets.”²⁴

Due to high fees for the use of tap water, urban cultivators use other sources of water including gutter water and untreated wastewater. The use of such water may pose a threat to human health, because many African cities have no quality standards or monitoring systems to assess the purity of wastewater before it is applied to crops.²⁵ DGIP/UNDP has also noted that irrigation with untreated wastewater is a problem, and recommends the adoption of low-capital, intensive pathogen/vector elimination processes, as well as an assessment of crop susceptibility to contamination.²⁶ Data collected in Accra during this study show that 42% of the open-space cultivators use gutter water on their crops. Consequently, urban cultivators are frequently accused of applying waste and polluted water to their land. One Accra resident lamented: “Whenever you have the time I will take you to an area where a man is cultivating, and you will see for yourself the type of water he uses. Anybody who sees the water he uses will not touch his crops. No wonder, his wife sells the crops in Accra central, far away from the cultivating area. I don’t think the man himself consumes his crops.”²⁷ The use of unwholesome water by urban cultivators has prompted concern in Accra. An official of the Agricultural Extension Services cited an example from Chile to support his position. In the early 1990s there was an outbreak of cholera in Santiago after the consumption of tainted vegetables, grown in metropolitan Santiago using water polluted by raw sewage.²⁸

ADMINISTRATIVE CONCERNS

Urban agriculture, like other informal sector activities, does not always conform to official zoning and licensing laws.²⁹ The activity is perceived as ignoring city-planning codes. In Accra, agriculture has not been considered a normal part of city life and town planners do not take it into consideration. Consequently, land may not be legally purchased for the purpose of farming. When some Accra city officials were asked whether a plot of land could be purchased for cultivation they answered no. An Extension Services official insisted that title would not be granted if a prospective buyer indicated that the land would be used for agricultural purposes.³⁰ Agriculture is not included in formal planning. As a result, unlike the construction of houses that must follow certain building codes, urban agriculture does not have any codes. Therefore, farmers cultivate anywhere they deem appropriate. This behavior has compelled some officials to point to the unstructured form of urban agriculture as a reason to discourage it.

SOCIAL CONCERNS

Another important factor in understanding why some officials reject the practice is the socio-economic background of the farmers. Earlier studies show that mainly poor, uneducated, and unemployed people in squatter areas were involved in urban agriculture.³¹ Such studies seem to infer that official resentment toward the practice was due, at least partly, to the low socio-economic status of the farmers. Sawio has argued that the increased involvement of highly educated people in urban agriculture would help legitimize it, stating “the more educated the players in the enterprise, the more likely will they be interested in protecting their investments by influencing policies and regulations in its favor.”³²

Data from Accra indicates that prior to the 1970s most urban cultivators were night watchmen, gardeners, unemployed, recent migrants, etc.³³ Only a few people from the middle/upper socio-economic status category were involved. Since 1972, many Ghanaians of middle/upper socio-economic status have become involved in urban agriculture.³⁴ During this study, cultivators were asked about the first time they got involved in urban cultivation. The response is indicated in the table below.

Urban Cultivators Survey

Initial cultivation	Frequency	%
Before 1966	20	10.0
1966-75	67	33.5
1976-85	55	27.5
1986-95	58	29.0
Total	200	100.0

Figures in the table indicate that a third of the cultivators in this study first got involved between 1966 and 1975. Although not clear from the table, most people who began urban cultivation within this period did so after the government introduced Operation Feed Yourself (OFY) in 1972.³⁵ Many people got involved in urban agriculture after the first independent Ghanaian government fell in 1966. That government had sought to maintain the so-called beauty of Ghanaian towns and cities within colonial standards. Moreover, the economic situation in Ghana was relatively good from Independence until 1966. The combination of good economy and stringent government prohibitions kept the prestige of urban agriculture quite low. This discouraged many urban dwellers, but especially the middle/upper socio-economic category, from engaging in cultivation.

Similarly, more women than men were urban cultivators, because women were consciously discouraged from actively participating in the formal work force.³⁶ For example in Ghana: "... the African men were opposed to employment of women in the Civil Service. This was based partly on the fear that, women, with fewer financial commitments, will accept lower salaries than men, who will, as a result be unable to find work."³⁷ Many urban women could not earn sufficient income in the distribution sector. Ghanaian women who were formally employed were generally working in low paying positions. This is indicated in the recommendations of the Civil Service Commission which suggested in 1951:

Apart from posts such as teaching in girls' schools, midwifery, etc., it is, generally speaking, more economical to employ women than men on jobs which involve work of a routine or manipulative and repetitive character not involving long and expensive training, and which offer only limited prospects of advancement. We therefore recommend that the Government should take such steps as are practicable to attract educated women into the Civil Service at all levels, but practically in posts such as typists, stenographers, machine operators, and clerical assistants. We consider that, other things being equal, preference should be given to women candidates for such posts.³⁸

This means women did not generally have alternative sources of income. In addition, they were concentrated in low paying formal sector positions and did not work much overtime. Consequently, many women engaged in urban agriculture to supplement their food supply, and thereby lowered the prestige of the practice.

Finally, during the Accra study some officials contended that since criminals may hide in tall crops, the cultivation of crops like cassava and plantains should not be encouraged in accra center. Actually some urban farmers had been warned not to cultivate such crops. A man who cultivates on Ghana Broadcasting Corporation (GBC) land said, "officials of GBC say we should not cultivate tree crops because they create shadow [hideouts] for criminals." ³⁹

REASONS FOR THE CHANGE IN OFFICIAL ATTITUDES TOWARD URBAN AGRICULTURE

Why are officials becoming increasingly positive towards urban agriculture? Their change in attitude is due to both economic and socio-political factors. Government officials in Accra tend to condone urban agriculture when Ghana's economic situation is bad and the cost of living is very high. During difficult times, officials see urban agriculture as one way to alleviate hardships related to food shortages and unemployment. If urban dwellers are not allowed to subsidize their food purchases or to grow food to sell, they may become more alienated from the government. Urban agriculture is seen as blunting those forces that might otherwise compel them to agitate for a change of government. Government officials are also more willing to allow urban agriculture if they perceive that many urban dwellers approve of it. Also, if the socio-economic status of urban farmers rises, officials are more willing to condone the practice. The higher the status of urban farmers, and the more prestigious the practice, the less likely it will be prohibited. Similarly, if many government officials are involved in urban agriculture, they will do little to discourage it.

Socio-political Factors

An increase in the number of elites involved with urban agriculture has helped to induce government officials to take a positive attitude toward the practice. Politicians, professionals and business people are very influential in Ghana and their growing involvement in urban agriculture has raised its prestige. Government bureaucrats do not want to antagonize people of middle/upper socio-economic status. Presently, many government officials in Accra themselves are involved in urban agriculture, and rational people do not make decisions that affect them adversely. Most of the officials interviewed stated that they are involved in urban agriculture. In addition, they stressed that if they did not view urban agriculture positively they would not have become involved. Those not involved cited constraints or lack of land around their houses for cultivation. But these officials were not against the practice and indeed had friends or colleagues who were cultivators. Some middle/upper income residents in Accra are so enthusiastic about urban agriculture that they claimed the practice beautifies the landscape, prevents land from reverting to bush, and helps drive away snakes or other undesirable creatures.

The use of universal franchise to elect political leaders has contributed to the condoning of urban agriculture by Ghanaian politicians. The "one-man one-vote" phenomenon has empowered the average Ghanaian, especially urban dwellers. Opposition to government has usually come from urban areas so various governments spend a lot of resources to maintain urban support. In order to win votes, politicians are increasingly accepting widespread but illegal activities like urban agriculture.

Public opinion has also played an important role in official acceptance of urban agriculture. Over the years, the general public has changed its attitude about urban agriculture. This study solicited the views of non-cultivators about urban cultivation. Forty non-cultivators were asked whether urban agriculture should be encouraged. All forty respondents answered in the affirmative. They were also asked whether they would have given the same answer thirty years earlier. Over half of the respondents said no. The remaining respondents did not know what their answers would have been. Yet, most of those who said they would not have encouraged agriculture in urban areas thirty years ago did not have any concrete reason. The words of an elderly woman are typical:

Thirty years ago? Let me see... At that time, I just felt cultivation in the city was bad. I cannot really tell you why I felt that way but it may be because of my experiences when I was a young lady. I grew up at Koforidua, and my mother had a nice vegetable garden in front of our house right at the center of the town.⁴⁰ One morning, Town Council officials came to slash down every crop saying it was forbidden to cultivate crops in the town. In our neighbor's front-yard was growing flowers. These were not slashed down. Thinking of it today, we were allowed to grow flowers but not vegetables. I grew up believing cultivation of crops in urban areas was bad. Today, I think otherwise. What use is it growing flowers instead of vegetables? We need food not flowers.⁴¹

Further questioning revealed that most non-cultivators had a positive attitude toward urban agriculture for the first time in 1972 after the launch of Operation Feed Yourself (OFY).

The officials interviewed confirmed that implicit public approval of urban agriculture has influenced a change in official attitudes. They asserted that if the general public was widely supportive of the practice then the government would discourage it. Signs of public approval include: Accra residents increasing their purchase of urban grown crops and an overall increase in the number of urban farmers. Urban agriculture has effectively become an established practice, further discouraging officials from opposing it. Prior to the launching of OFY, Ghanaian officials had dismissed urban agriculture as ephemeral. However, officials now realize the importance of this practice. The officials involved in this study were asked whether urban agriculture was a permanent or temporary phenomenon. All of them believed that it was a permanent practice. An Extension Services official in the Ministry of Agriculture stated, "increasingly, many people are getting involved in urban cultivation and those already in it are not abandoning it. So you can say it is a permanent practice."⁴²

Indirect state intervention also encouraged official recognition of urban agriculture in Ghana. Through OFY, the government encouraged all Ghanaians, including urban dwellers, to grow their own food.⁴³ In 1992 the personal intervention of the President of Ghana also helped to encourage a positive attitude toward urban agriculture. That year, officials of the Department

of Parks and Gardens gave "stop cultivation" orders to a group of growers at a place near the Osu Castle in Accra. One of these cultivators recounted the events:

When we received the order we came together and sent a petition to the President. We told him that we are law-abiding citizens with no source of income aside from the income we get from farming. Since we are not rich enough to buy land to cultivate, we cultivate public land near the Castle. Before we started cultivating the area, it was bushy and many people used the place as their toilet. Now the Department of Parks and Gardens say it is their land so we should quit. What shall we live on if we stopped farming? We told the President that our initiatives should be appreciated by the Department of Parks and Gardens because some people like us [had been] roaming the streets stealing and doing other illegal things, and [now] we were living a decent life.⁴⁴

Upon receiving the petition, the President met with the head of the Department of Parks and Gardens and representatives of the cultivators. They reached an agreement whereby the cultivators were permitted to farm part of the area and the Department of Parks and Gardens agreed to maintain the remainder. After news of the President's intervention became public, officials no longer asked cultivators to stop farming until an area was due for development.

ECONOMIC FACTORS

Certain economic factors were instrumental in changing the negative attitudes some government officials held towards urban agriculture. For example, some officials have long held the view that the country would eventually become more industrialized, and many workers would subsequently be needed in the industrial sector. Foreign investors would be more willing to invest in the country if they were sure of recruiting labor without much difficulty. To have prospective industrial workers readily available it would be necessary for some unemployed to stay in Accra and other Ghanaian towns. Government officials therefore allowed potential workers to sustain themselves through urban agriculture and other informal sector activities. As one official stated: "If urban dwellers were banned from cultivating in the cities many would not be able to survive... and might even abandon the cities."⁴⁵

Allowing urban agriculture helps to remove the burden of maintaining a potential labor force from the government. Since, rural laborers normally do not have the necessary skills to work in urban industries, investors would have to spend a lot of money to train their workers. By condoning urban agriculture, government officials allow some low salaried and unemployed workers remain in the cities.

For Ghanaian government officials and employers, there is another advantage to workers producing some of their foodstuffs: it enhances the stability of the economy. Workers agitate for more pay they cannot easily afford basic commodities. By producing some of their food, workers may not feel the realities of their exploitation, and be less willing to agitate for an increased salary.⁴⁶ Workers are able to survive on meager salaries when they can subsidize food purchases through urban agriculture. In addition, the employer does not pay as much for the reproduction of labor. This is possible with the continued existence of non-capitalist structures which provide support for the laborer but are not maintained by the wages paid.⁴⁷ Controlling worker unrest and maintaining available surplus labor are some of the key economic reasons why government officials now condone agriculture in urban areas.

Nutritional Factors

Many sub-Saharan African countries import food and/or rely on food aid, indicating that food supplies from the countryside are inadequate. As Sawio notes, rural areas often do not produce enough food to feed both rural and urban people.⁴⁸ Some officials in the Ministry of Agriculture confirmed that rural Ghana is not able to supply enough food to urban Ghana. Two major constraints were noted: low productivity due to lack of agricultural technology and insufficient infrastructure for moving produce to urban markets.⁴⁹ There is also a shortage of foreign exchange to import food, so it has become more necessary for urban dwellers to grow some of their food. When asked about the importance of urban agriculture, all the officials interviewed mentioned, among others, that urban agriculture saves foreign exchange because it is not used on the importation of vegetables.

The increased presence of vegetables, especially salad, in the diet of Ghanaians also compelled government officials to acknowledge the existence of urban agriculture. With broader general education, and knowledge of nutrition in particular, many Ghanaians have become more conscious of the importance of vegetables in their diet.⁵⁰ In Accra, officials involved in this study were asked whether the countryside is able to supply enough vegetables to feed the urban population. They all answered no. An Accra Metropolitan Assembly (AMA) official noted that logistical constraints, including the use of crude agricultural tools, a poor transportation network, and lack of adequate refrigeration, prevent the countryside from supplying enough vegetables to the urban areas.⁵¹ For urban dwellers to have access to fresh vegetables, it is necessary for them to engage in urban cultivation. An official of the Policy Planning Monitoring Evaluation Department (PPMED) stated:

One might say that cultivation should be limited to the countryside. But we should realize that we have to use vegetables in their fresh state. Therefore, the issue is that vegetables should be sold or bought when fresh. That means, there should be an efficient transportation system. That is not guaranteed, so the only alternative left to us is to grow vegetables close to the market. Vegetable cultivation should be close to the market because most Ghanaians don't have refrigerators. They should buy vegetables on daily basis.⁵²

An increasing expatriate investor population in Ghana encouraged the production of vegetables in urban areas where expatriates are concentrated. It has also prompted urban farmers to produce specific crops that this section of the population consumes. Products meant for this group attract higher prices than those that target the local population. The broader state goal of attracting increased foreign investment has thus indirectly led to the official accommodation of urban agriculture in Accra.

Conclusion

The population of Ghanaian towns and cities is continually increasing. Yet various factors, including the implementation of structural adjustment programs, have forced the rate of formal and public sector employment down. Therefore many urban dwellers must seek employment in the informal sector, making this an important source of income and food. Urban agriculture has become one of the most important informal sector practices for city dwellers. Colonial administrators did not recognize urban agriculture, and Ghanaian policy makers continue this

trend. This paper has demonstrated that, policy makers and other government officials initially did not tolerate urban agriculture. They recognized only the potential negative effects of urban agriculture on humans and the environment, citing the administrative, public health, and social impacts. Eventually, socio-political, economic, and nutritional factors compelled officials to accommodate urban agriculture.

Although Ghanaian public officials have become more positive toward urban agriculture, they still do not do much to promote it. For example, no laws protect urban farmers and their crops, and urban farming is still unregulated. However, as more middle/upper income people become involved with urban agriculture, Ghanaian officials will likely do more to safeguard the interests of urban farmers. Higher status urban farmers will also continue to invest more resources into urban agriculture. If this trend continues, the state will likely give formal recognition to urban agriculture and provide resources or policies that encourage the practice.

Notes

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3. This is not to suggest that the formal sector is more important job provider than the informal sector. Data from various sub-Saharan African countries show that the informal sector has always employed more people than the formal sector. However, most of the people who migrate from rural to urban areas hope to secure jobs in the formal/public sector
4. One should own a house or have secure tenure over a house in order to cultivate the space around the house
5. It is difficult, if not inappropriate, to categorize Ghanaians into classes in the western sense. This is because industrialization/capitalism is not developed well enough to accommodate such categorization. Secondly, Ghanaians categorize people by different yardsticks; notably wealth, government or official positions, educational background, and success in private business. Wealthy people, as well as the highly educated, people successful in businesses, and people occupying high government positions are termed "bigmen," (middle/upper socio-economic status in this paper). In this paper, socio-economic status is used in this sense.
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24. Interview by Monica Azinab, a research assistant to the author. Accra, Ghana 1998
25. Ibid
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30. Interview by author, op cit.
31. Sawio, Camillus (1994). "Who are the Farmers of Dar es Salaam?" in L. Mougeot et. al. (ed) *Cities Feeding People*. Ottawa: IDRC
32. Sawio, Camillus (1993). "Breaking New Ground in Dar es Salaam," in *Farming in the City: The Rise of Urban Agriculture*. Reports Vol.21, No.3
33. Officials, cultivators, and non-cultivators all confirmed this assertion
34. Since there are no data on this, I rely on people's perception of changes in the socio-economic status of urban farmers.

35. Operation Feed Yourself is a program launched by the Ghanaian government in 1972 to encourage the population to grow their own food.
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40. This woman grew up in the later part of the colonial period
41. Interview by author, op cit.
42. Interview by author, op cit.
43. The heat of Operation Feed Yourself died after two or so years so whatever official encouragement urban agriculture received was short-lived.
44. Interview by author. Tape recording. Accra, Ghana 1996
45. Interview by author, op. cit.
46. It is assumed that the most important preoccupation of workers in Ghana is food. In some companies workers are provided free lunch. This may also be a means of preventing them from agitating for higher salary
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50. Previously, exotic vegetables like carrots and lettuce were considered food for the affluent. They were not produced in any significant quantity in Ghana so they were imported thus, making them very expensive. Vegetables as used in this work means exotic vegetables
51. Interview by author, op. cit.
52. Interview by author, op. cit.

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