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Prospects and Challenges of Cities Micro Green Economy: A Study of Horticulture Practices in Lagos, Nigeria

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ABSTRACT
This paper is aimed at understanding various planning laws and regulations that serve as hindrance to green economy in Nigerian cities. The study is focused on the horticulture practices in Eti-Osa Local Government Area of Lagos. This is a form of green economy that was not considered during the preparation of the master plan of the area. The survey for the study was conducted on two (2) occasions (2008 and 2013). This was shortly before planning activities become highly intensive during the 6th republic and in the 7th republic. The study purposively sampled all the commercial horticultural gardens available at the two (2) periods; these are 63 and 39 in 2008 and 2013 respectively. Findings revealed that about 24 (38%) of the gardens has been lost due to strict application of development control regulations in the space of five (5) years. Result also revealed that over N14, 570,000 worth of investment and N11,070,000 annual profit were affected. About 34 employment opportunities were affected and the source of livelihood for over 100 people has been destabilised or block. The study recommended the inclusion of commercial horticulture practice as an integral part of urban land use and the modification of planning laws and regulations to suit such practices that have multiplier effects (advantages) on the citizenry and the urban environment. The study concluded that although commercial horticulture practice had little contribution where only few people were employed, it is still less few people who are food insecure or those who lack employment. The multiplier effect that entrepreneurial gardens can create through their enterprise is significant: not only does it strengthen the local economy by creating economic opportunities for other people and businesses, but it addressed other multiple problems such as environmental pollution and climate change.

1.1 Introduction

The need for more space to house urban residents is a global concern but more pronounced in the developing nations of the world (UN-Habitat, 2003). This phenomenon, create critical challenges for proper implementation of development control a subset of urban planning. This is a government-administered process of determining how present actions of man termed “development” shape the future of the morphology of towns and cities. It also deals with selecting and prescribing best course of action to arrive at a desired goal for an urban area or to prevent new and solve existing urban problems (Bartone et al. 1994, Smith 1993, Hodge 1991). In other words, urban planning and development control are futuristic; as it caters for present day land use requirements without necessarily preventing the future generation to meet their own needs. An important objective of development control is ensure that the use of land and its resources is to meet people's needs over time according to the land's capabilities (Chapin and Kaiser, 1997). This means that every piece of land within an urban environment should have an appropriate use.
In Nigeria generally, Laws and regulations have been enacted for proper control of development, these include: the Land Use Act of 1978, Urban Development Policy of 1992, Housing and Urban Development Policy of 2002 as well as the Urban and Regional Planning Act 1992 (URPA). On the contrary, planning laws over the decades, especially during the military regime have not been implemented in such way that would have ensure that all land use type are accommodated. Thus, despite the existence of these laws and policies, urban land use problems still persist in metropolitan Lagos. Expectedly, this also has affected green economy because land is required for effective green economy development in urban area.
One of the unpopular means of accomplishing green economy on a micro scale is the utilisation of road setbacks and vacant lots along streets for horticultural practice, with the ultimate goal of residents livelihood (see figure 1). It is obvious that road setbacks and vacant lots along streets exist virtually in every community in the world. Their utilisation and functionality however vary from one place to another. Most of the developing nations’ road set-backs and lots are either neglected or under-utilised both by private and public developers purposely because such areas are not for private individuals.

Figure 1: A typical example of horticultural garden on road setback

The neglect of such areas by charlatan government often leads to their abuse by the public who use the spaces for selfish and less beneficial purposes to the built environment. The slogan goes that a 'no man's land' is of no 'man's concern'. What this implies is that most road side vacant lots along streets in African modern urban cities are being neglected by their governments, not planned, and abandoned by residents and therefore less beneficial to the community (Abegunde, 2008; Abegunde, Omisore, oluodo and Olaleye, 2009).

Few countries however have successfully transformed their road set-backs and vacant lots to thriving community gardens and flower beds. Examples of this are common in South African cities (City of Cape Town, 2005; Roberts, 2009; FAO, 2010). This is an indication that street gardens can be of economic and physical benefits to man and his built environment. In another dimension, turning roadside vacant lots and setbacks to horticultural gardens has their economical, ecological, aesthetic, health and physical planning implications.

There is therefore the need to understand the economic implication of urban horticultural development in the study area and beyond. The conduct of this kind of study is imperative now that urban agriculture is receiving its popularity as means of restoring productive green belts and economic revival to world cities. In other words, the aesthetics of urban horticulture that serves as a source of agricultural production in a poor economy is of concern to urban development planners. The aim of the study is therefore to critically examine the spatial extent and practice of urban horticulture towards green economic development of cities in the world, citing Lagos, Nigeria as an example. This is with a view to establishing the contributions of such practice to the economic development of the residents and the built environment and by this develop a framework that could be of importance to integrating the practice into urban land use policy and development control.

1.2 The Study Area with Its Attendant Green Economy Problem

Lagos is considered as one of the Africa's fastest growing cities and Nigeria's commercial nerve centre (Aluko, 2010). The city lies in southwestern Nigeria, on the Atlantic coast in the Gulf of Guinea, west of the Niger River delta, located on longitude 3°24' E and latitude 6°27' N. On this stretch of the high-rainfall West African coast, rivers flowing to the sea form swampy lagoons behind long coastal sand spits or sand bars. Some rivers, like Badagry Creek flow parallel to the coast for some distance before finding an exit through the sand bars to the sea. The general structure of land use distribution in the study area (Lagos metropolis) shows that only 520 hectares (2.8%) of the total land area is open space. This includes all urban land for recreation, parks and garden, urban agricultural land, commercial and individual horticultural garden, and unused spaces (Oduwaye, 2006). Lagos, an area with limited land is chocked with housing development, heavy industries and automobiles. Further to the above-mentioned problems is the world global warming and depletion of ozone layer, threatening human survival in the new millennium. Despite all the problems, little attention has been given to spatial distribution of green space in the city. The focus on horticultural practice that promotes aesthetic, provides green plants and by this promote city economic development calls for attention. Eti-Osa East Local Government is one of the local government areas in Lagos that has limited land for physical development due to the presence of water bodies.

2.0 Literature Review, Theory and Concept Framework

2.1 Economy, Green Space Challenge and Horticultural Practice in Third World Nations

Early socio-economic problems of the third world nations have been linked with poverty (Madzingira, 1997). That could be why Khan (2001) noted that most of the one-fifth of the world's populations afflicted by abject poverty, earning less than on Dollar a day live in lagging regions. Although, poverty have reduced over the past 40 years, particularly in China, India, South East Asia and South Africa, with little or no progress recorded in sub-Saharan Africa {Department for International Development (DFID), 2004}.

Specifically, between 1981 and 2001, the percentage of the number of people living on less than a dollar per day globally fell from 40.4% to 21.1% despite the 1.5 billion people that were added to the world populations within the same period. Of interest here is the inverse relationship between agricultural production and poverty in the world. For instance, Warr (2001) noted that growth in agriculture in a number of South East Asian countries significantly reduced poverty. This is just as Gallup et al (1997) had earlier observed that every 1% growth in per capita agricultural Gross Domestic Product (GDP) led to 1.61% growth in the incomes of the poorest 20% of the population – much greater than the impact of similar increases in the manufacturing or service sectors. In other words, agricultural related activities, of which urban horticulture is a part; are generally central to world poverty reduction. As argued by Weinberger and Lumpkin (2007) that horticultural products are facing increasing domestic and international demand, widening market access and helping residents in lagging regions of the world who engaged in such to escape poverty through production and exchange of non-staple crops.

In the past, the development policymakers having observed the role of agriculture in poverty reduction, focusing on staple grains, especially rice and wheat production across the globe. Recent observations by the Consultative Group on International Agricultural Research (CGIAR) has expressed more interest in horticulture and research on high value crops as priorities (CGIAR, 2004), though investments in horticultural research and products remain inadequate. Despite this inadequacy, on a global scale, the value of all fruits and vegetables traded as horticultural products is more than double the value of all cereals traded as farm products (FAO, 2005). In addition, farmers in other regions of the world have also found it profitable to expand production of horticultural produce at the expense of the cereal area (Weinberger and Lumpkin (2007). This is not unconnected with the ease of practicing horticulture where land seems to be inadequate for extensive cropping. For instance, some residents engage in indoor and street horticulture, enclosed gardening, potted plants to mention but few. Of interest here are the multiple economic opportunities in horticultural practice in modern cities. This is despite its contribution to community greening in the global warming era.

As observed by Food and Agricultural Organisation (FAO), (2010), most rapidly growing cities in the world are located in developing countries of Asia and Africa, where rapid urbanisation is at variance with green space development and the practice of urban agriculture is at high demand. Thus, in such cities, horticultural gardening bridges the gap between poverty, environmental pollution arising from urbanization and reduction in green area (Abegunde, 2011). In other words, three out of the four targets of millennium development goal (poverty eradication, reduction in global warming, health and education for all) can be achieved through support of urban horticulture. Hence, researchers currently are unveiling the self-help pro-poor and environmental opportunities endowed in the practice {Moustier, 1999; Food and Agricultural organization (FAO), 2010}.

The concerns in this chapter are that horticulture is an easy to practice arm of agriculture that intensively utilizes little space of land, even in core areas of the built environment (Abegunde et al, 2009). Its ability to combine aesthetics through landscaping with production of food crops at a reasonable and manageable scale makes it a welcome practice both to the poor and the elites in combating poverty and enhances environmental beautification (Weinberger and Lumpkin, 2007). It is seen as one of the easy ways of increasing urban green space and by this, promotes good health (Abegunde, 2011). In another dimension, horticulture is an appropriate approach towards environmental friendly pro-poor development in the global warming era. The premise of this chapter is that though the practice of urban horticulture in developing nations is an unpopular path (towards meeting ecological challenge of community greening, poverty alleviation and urban aesthetics), it can contribute towards solving part of the environ-economic problems of the world.

3.2 Development Control Tools that Restrict Horticultural Practice

These are framework encompass planning policies, legislation and regulations that guide or direct land-use planning and management. Maxwell and Armar-Klemesu (1998) asserted that the legal and regulatory framework of the city, along with access to land, pose the most significant constraint to horticulture; which is an integral part of urban agriculture. Among these tools are:

Town Planning Laws: In most cities, town planning laws ignore horticulture as an integral part of urban land use in national and municipal policies. Even when regulations/by-laws on, or related to, horticulture exist, this is often not under an overall and clear policy, and the law may be interpreted differently by different actors (Foeken, 2006). Notable among these laws and regulations are:

a. Building line and code standard;

b. Airspace and Setback;

c. Development approval permit;

d. Change in use permit;

e. Environmental Impact Assessment Report (EIAR) of some specific land use; and

f. Land sub-division regulation.

Zoning By-laws: Zoning is the division of a municipality into various land uses and the regulating of land use within those municipal. Typical zone divisions distinguish residential, commercial and industrial land uses, regulating the placement, spacing and size of buildings to conserve and promote human health, safety and convenience (Anderson 1995).
The National Development Plan: The structure of the various national development plans did not recognise the cultivation of land within urban areas for agriculture purpose. The plans relegate every aspect of agricultural development (horticulture inclusive) to the rural areas.
The 1978 Land Use Tenure System: The enactment of the land use system did not also consider the importance of horticultural practise within the urban area. Land becomes more difficult to acquire because of the activities of land speculators who acquires land before the development process.
Master Plan: The use of master plan by town planners as a tool for the control of development, more often than not exclude horticulture practice. Master plan are long term in nature thus their review always take a very long time. In view of its rigidity, it is not easy to make adjustment to accommodate land uses that are not specified within the master plan until its review.
Layouts of Urban Land: Land in urban area is always sub-divided into plots for various uses. Special attention however has been giving to other forms of land use that is considered to yield more economic return than horticulture. This is why commercial and industrial activities are vividly visible in the urban areas.
Indeed, the integration of horticulture into urban planning will require review of legislative policies at all levels and comprehensive overall of the programmes of all urban and regional planning schools. These steps are necessary in order to change the negative attitude of town planners and development control agencies to horticulture.

2.1 The Concept of Urban Horticulture (UH)

Horticulture is the art of gardening or plant growing; in contrast to agronomy - the cultivation of field crops such as cereals and animal fodder, forestry - cultivation of trees and products related to them, or agriculture – the practice of farming. Urban horticulture (UH) can also be seen as intensive production of a range of vegetables; aromatic, medicinal, flowering and ornamental plants grown mainly in the city or at its close periphery where there is competition among land uses (Moustier, 1999). The origin of horticulture lies in the transition of human communities from nomadic hunter-gatherers to sedentary or semi-sedentary horticultural communities, cultivating a variety of crops on a small scale around dwellings. (Von-Hagen, 1957; McGee and Kruse, 1986). A characteristic of horticultural communities is that useful trees are often planted around the built environment or specially retained from the natural ecosystem. The significance of this in promoting healthy environment is found in the works of Ebenezer Howard (1902) and further explained by Moss-Eccordt (1973) and Ademola, (2002).
Thus, the practice of horticulture plays a role in the development of healthy communities in three distinct ways. First, it provides a physical condition with appealing outlook. Second, it promotes good health as carbon related gasses generated in cities are utilised during plants' photosynthesis while oxygen that is useful for man is released as bye product. Third and perhaps the most important to this study, plants generally enhance the economic and social values of the community (Ward, 1992; Adejumo, 2003). This study is more inclined to the latter importance, though not disassociated with the former. This is because many urban horticulturists contribute their quota to vegetable production. The sales of these vegetables and ornamental plants provide markets for both horticulturists and middlemen and women in the business. This is why it has been argued that solutions to poverty in cities of developing countries has multiple faces, of which horticultural practice; a subset of urban agriculture is one (Weinberger and Lumpkin, 2007).

2.2 Green Economy Theory

In recent years, poverty and environmental issues have been attracting significant attentions in development studies (Nyasha, 1997; Frey, 2000). First, the causes and consequences of poverty have been explored and theoretical models have been developed to explain hitherto obscure causalities. Along this line, scholars who are environmentally oriented have been attempting to create a meeting point for these two concerns, developed environmentally oriented theories that are pro-poor in approaches (Amati, 2008).
Among such theories is green economy model which focused on improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities. It is a new theory built on the platform of pro-growth model developed lately to justify the need for the type of development that is low income friendly and poverty eradicating. Origin of this can be traced to the work of Simon Kuznets, who in 1955 found an

inverted-U pattern between per capita income and inequality based on a cross-section of countries. According to him, as per capita income rises, inequality first worsens and then improves. The major driving force was presumed to be structural change that occurred because of labour shifts from a poor and less productive traditional sector to a more productive and differentiated modern sector (Kakwani, Khandker and Son, 2004).

In relation to this study, green economy is an attempt at accomplishing social, ecological and economic development of cities through low carbon, resource efficiency and social inclusion. A green economy as a new paradigm is the one that believes that sustainability can be achieved through recognition of the cardinal roles and combine efforts of green aspect of the environment and economy that alleviates poverty and improves green areas, and thereby turning lagging regions to prosperous ones. It is a new model of growth that is much less intensive in natural resources and that can lead to social well-being and poverty reduction in Africa and beyond. It opines that the simple pathway towards sustainable development is to balance and coordinate different interests: between economic growth/job creation and environmental integrity (development control), between the rich and the poor, and between the present and the future generations which is the major aim of development control.

As a new model in the green environment, it aims at achieving millennium development goals through pro-growth, pro-jobs and pro-poor techniques of turning environmental imperatives into viable economic activities, helps reconcile the need for economic growth and the need to ensure the environmental basis for continued growth into the future. It recognizes the role of green industry in economic transformation. Green industry here refers to but not limited to businesses involved in production, distribution and services associated with ornamental plants, landscape and garden supplies and equipment. Segments of the industry also include wholesale nursery, greenhouse and sod growers, landscape architects, contractors and maintenance firms on green issues, retail garden centres, home centres and mass merchandisers with lawn and garden departments, and marketing intermediaries such as brokers, horticultural distribution centres, and re-wholesalers. In addition to these are commercial sectors, many state and local governments' institutions that are related to urban forestry operations for management of parks, botanic gardens, and right-of-ways. The Green Industry is linked to urban forestry, by providing quality plant material and professional personnel with specialized expertise for growing, maintaining, and managing city trees.

Horticulture as mentioned under the green industry is the science and art involved in the cultivation, propagation, processing and marketing of ornamental plants, flowers, turf, vegetables, fruits, and nuts. Within the horticultural sector, the environmental horticulture industry, often referred to as the "Green Industry", is one of the fastest growing sectors of agriculture in the US (Palma and Hall, 2009). This study therefore sees green economy model as pro-poor theory of sustainability through involvement in horticultural practice to improve residents' income and boost national economic development while paying attention to community greening, urban aesthetics, and ecological balance in global warming era.

4.0 Research Methodology

This study focused on Lagos, Nigeria and used information generated from questionnaire administered on residents who engaged in outdoor commercial horticultural practice along major streets in Eti-Osa Local Government Area of the city. The survey for the study was conducted on two (2) occasions (2008 and 2013); this gives five (5) years interval. Reconnaissance survey revealed that urban commercial horticulture in Lagos city was practiced by private individuals and most of their gardens were not formally planned or located in government designated places. The first survey in 2008 purposively selected all (100%) the existing seventy-five (75) gardens and targeted their owners (managers) during questionnaire administration. The study administered questionnaire on all the identified practitioners of commercial horticulture in the area. Sixty-three (63) of them were eventually interviewed, as the managers (owners) of the remaining 12 gardens were not available for questionnaire administration. During the second survey in 2013, the study also purposively selected the entire 63 surveyed horticulturist in 2008 for a re-survey. From this number, only 39 horticulturists were still available.

Analysis is therefore based on these 63 respondents in 2008 and 39 respondents in 2013. Information required from asked the respondents centred on their economic background, amount invested in the horticultural gardens, cost of production and profit realized annually, number of workers engaged in the practice and amount of money paid to them annually, just to mention but few. Data for the study were analysed using descriptive and inferential statistics. Specifically, the study employed frequency tables to analyse data collected on area of land available for the practice, the economic characteristic of the horticulturists.

4.1 FINDINGS AND DISCUSSION

4.1.1 Socio-economic Background of Horticulturists

The socio-economic characteristics of horticulturists in this study focused on the location of their garden, gender, marital status, educational level, household sizes, age and monthly income. As indicated in Table 1, in 2008 the practice was dominated by male respondents (93.7%) of which two-fifth of them were single (42.9%), about

41.3% were married, while a few (9.5%) of them were divorced. Information on their educational level revealed that 14.3% of the respondents lacked formal education; while a little over one-fourth (27.0%) of them have been to tertiary institutions. Those with primary and secondary school certificates were 22.2% and 36.5% respectively. The 63 manager cater for 218 household members, this is an average of 3.46 people per horticulturist. Table 1 further revealed that the entire horticulturist are within the productive age, with about three-quarter (75%) within the age bracket of 20 and 39 years. Average monthly income of respondents in the year under study (2008) shows that over three-quarter of the horticulturists earn more than the current minimum wage which is pegged at eighteen thousand naira (N18,000:00). It is important to note that the minimum wage in 2008 was seven thousand five hundred naira (N7, 500:00).

On the other hand, in 2013 only 39 of this gardens were still in operation with 27 (69.2%) and 12 (30.8%) located in Ikoyi and Victoria Island respectively (See Table 1). The practice is still dominated by men (94.9%). The remaining 39 horticulturist cater for 118 household members, which is an average of 3.03 person per horticulturist. The decline in ***arithmetic mean*** is an indication that more household members were affected by the displacement of 20 managers from the garden between 2008 and 2013. There is no significant change in the age structure and the average monthly income of the horticulturist because in the two (2) years under review, just like in 2008 about three-quarter of them are within the productive age and earns above the current minimum wage of N18, 000:00.

Table 1: Socio-economic Characteristics of Horticulturist

S/No	Variables	2008	2013
1	**Location of garden**	**Frequency**	**Frequency**
	Ikoyi	45 (71.4%)	27 (69.2%)
	Vitoria Island	18 (28.6%)	12 (30.8%)
	Total	63 (100%)	39 (100%)
2	**Gender of Respondent**		
	Male	59 (93.7%)	37 (94.9%)
	Female	4 (6.3%)	2 (5.1%)
	Total	63 (100%)	39 (100%)
3	**Marital Status of Respondent**		
	Single	27 (44.4%)	16 (41%)
	Married	26 (39.7%)	16 (41%)
	Divorced	6 (9.5%)	4 (10.3%)
	Widowed	4 (6.3%)	3 (7.7%)
	Total	63 (100%)	39 (100%)
4	**Educational Status of Respondent**		
	No formal education	23 (31.75%)	6 (15.4%)
	Primary school	14 (22.22%)	9 (23.1%)
	Secondary school	23 (36.51%)	16 (41%)
	Tertiary	6 (9.52%)	8 (20.5%)
	Total	63 (100%)	39 (100%)
5	**Household size**		
	Total number of the household of respondents	218	118
6	**Age of Respondent**		
	20-29 years	24 (38.1%)	12 (30.7%)
	30-39 years	24 (38.1%)	20 (51.3%)
	40-49 years	15 (23.8%)	7 (18.0%)
	Total	63 (100%)	39 (100%)
7	**Average Monthly Income {in naira (N)}**		
	Below 20,000	10 (15.9%)	6 (15.4%)
	20,000-29,999	13 (20.4%)	8 (20.5%)
	30,000-39,999	16 (25.4%)	10 (25.6%)
	40,000-49,999	9 (14.3%)	6 (15.4%)
	50,000-59,999	6 (9.6%)	4 (10.3%)
	Above 60,000	9 (14.3%)	5 (12.8%)
	Total	63 (100%)	39 (100%)

Source: Authors' fieldwork, 2008 and 2013

4.1.2 Contributions of Horticultural Practice to Micro Green Economy

As indicated Table 2, in 2008 the entire 63 horticulture gardens employed 70 staff which excludes the managers of garden, furthermore 36 people are under training as apprentice in the various garden. By the year 2013 the number declined to 43 employed staff, 18 apprentices and of course 39 garden managers (owner). The import of this statistic is that about 27 employed staff and 20 garden managers have were rendered jobless during this period. It is equally important to note that the household sizes of the 27 affected employed staff are not among the earlier discussed household members that were affected. The total land area where horticulture was practice in 2008 was 31675 meter-square and 20590 meter-square in 2013.

Table 2: Employed Staff, Apprentice and Land Area for Horticulture Practice

S/No	Variables	2008	2013
		Frequency	Frequency
1	Number of Employed Staff	70	43
2	Number of Apprentice	36	18
3	Total Size of the Gardens (in meter-square)	31675	20590

Source: Authors' fieldwork, 2008 and 2013

Statistic in Table 3 indicates that in 2008 the monetary value of the available horticultural gardens was N40, 005,000:00. This estimated value was sustained on an annual expenditure bill of approximately N15, 000,000:00, with an annual income (gross) of N44, 335,000:00 and a profit of N29, 455,000:00 annually. Implicit to this is that in 2008, arithmetic mean of annual profit is N471, 410.26:00. If the return on investment (ROI) is calculated using the formula below;

ROI = $\frac{gain\ from\ investment - cost\ of\ investment}{cost\ of\ investment}$ *x* *100* then the return on investment on horticulture practice in 2008 will be:

ROI = $\frac{29455000 - 14962000}{14962000}$ *x* *100* = *96.87%.*

The return on investment (ROI) of this practice far exceeds return on investment from other form of business. The reason for this could be because there are no significant rent charges been paid by the horticulturist since majority of them occupy their sites illegally. This however indicated that if given the proper avenue to thrive horticulture as a subset of city micro green economy can boost the economic viability of urban residents. Although development control practices between 2008 and 2013 reduce the number of horticultural garden in the study area, the ROI of this form of green economy was not affected significantly. The ROI in 2013 is 95.34%, which is only a decline of 1.53%.

Table 3: Economic Contribution of Horticulture to Micro Green Economy

S/No	Variables	2008		2013
		Frequency		Frequency
1	Estimate Value of Garden	N40,005,000:00		N25,435,000:00
2	Average Annual Expenditure	N14,962,000:00		N9,412,000:00
3	Average Annual Income	N44,335,000:00		N27,865,000:00
4	Average Annual Profit	N29,455,000:00		N18,385,000:00

Source: Authors' fieldwork, 2008 and 2013

4.1.3 Challenges of Micro Green Economy in the Study Area

From Table 4, the summary of the lost incurred by green economy sector in the study area indicates that 27 employed staff were relieved of the appointment, while the training process of 18 apprentices was aborted. During the period under review (2008 - 2013), 11085 meter-square of land was converted to other forms of land uses (majorly road expansion). Table 4 further indicates that an estimated value of garden lost is N14.57 million, while about N11, 070,000:00 profit was removed from the net income of the study area and by implication the net income of country.

Table 4: Estimate Differences within the Space of Five Years (2008-2013)

S/No	Variables	Frequency
1	Number of Employed Staff	43
2	Number of Apprentice	18
2	Size of the Garden (in meter-square)	11085
3	Estimate Value of Garden	N14,570,000:00
4	Average Annual Expenditure	N5,550,000:00
5	Average Annual Income	N16,470,000:00
6	Average Annual Profit	N11,070,000:00

Source: Authors' fieldwork, 2008 and 2013

The expansion of roads along which this horticulture gardens were located is one of the major reason for the lost of horticulture land between 2008 and 2013. Example of such expansion is the one done in Ikoyi (Gerald Road) and Victoria Island (Ozumba Mbadiwe Avenue), the two expansion resulted in the loss of about 10 horticulture gardens. Figure 2 and 3 indicates the location of horticulture gardens in 2008 and 2013 respectively.

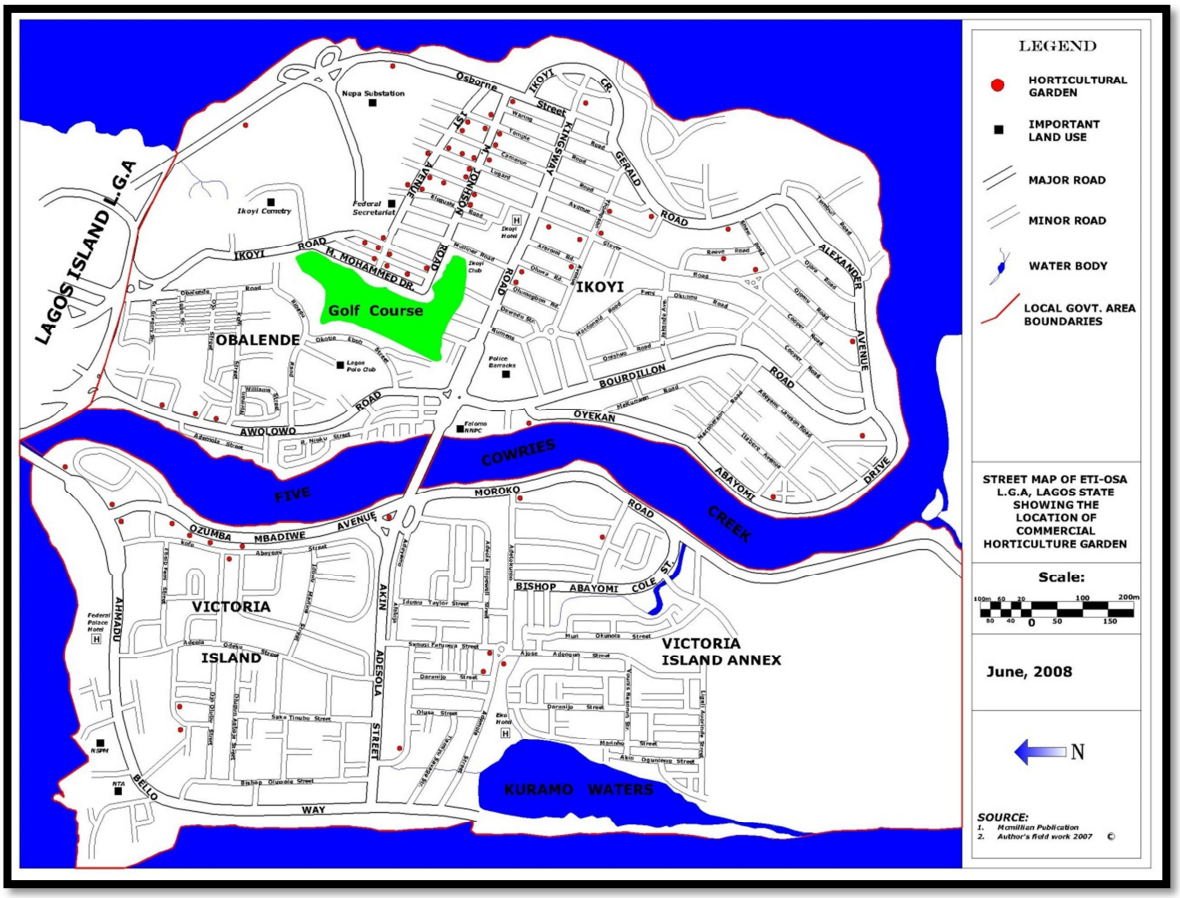

Figure 2: Location of Horticultural Garden in 2008

Another form of development control which affected the location of horticultural garden in the past five (5) years is the beautification exercise of the Lagos State Government. Roundabout, road intersections and interchange that were used for this practice are now landscape as public green space. Example of such is the Muri Okunola Park in Victoria Island (located on Adeyemo Alkija Street) and the roundabout between Obafemi Awolowo Road and Bourdillon Road (located under Falomo Bridge). Good as this development are, it as a negative effect on the green economy of the study area. Furthermore, the various tools of development control (Zoning, land subdivision, master plan) did not make provision for uses that relate to green economy either on the micro or macro scale.

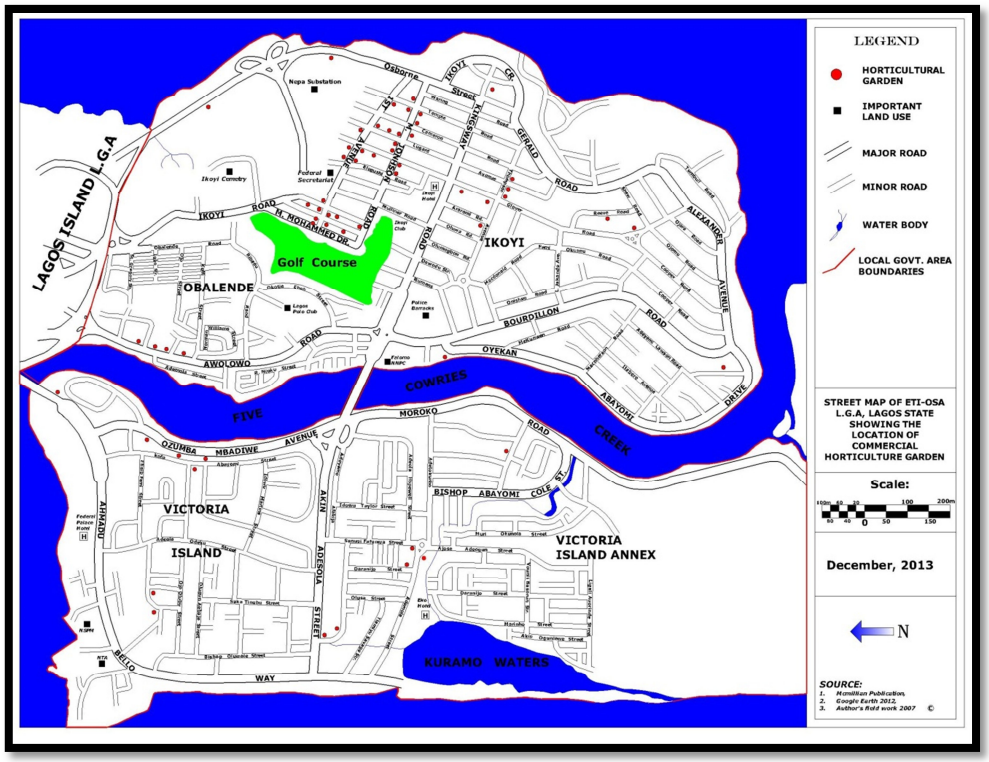

Figure 3: Location of Horticultural Gardens in 2013

5.0 Conclusion

Green economy is a popular and precious resource, which can make a valuable contribution to the economy of a community and yet add to the attractiveness of the community. In the light of this, the conversion of green space to other uses should be disallowed particularly in area where horticultural gardens are located. Planning authorities have a key role in ensuring that strategies for micro green economy are integrated with other strategies for improving local economy and quality of life in general. As such, it should be fully involve in micro green economy planning and delivery.

Better provision and care of urban micro green economy will require an effective policy framework, one within which all decision-maker, can operate and work collaboratively. A more strategic approach is needed at the national level for improving co-ordination of national priorities and guiding local strategies for delivering networks of micro green economy that benefit the whole communities and the nation at large. A better policy and good practice framework is also needed at the local level, within which policy maker, designers, managers, and users of urban land for micro green economy can plan to deliver higher standards of noticeable economic value.

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