

Baseline survey and design of the traditional core area of Ilaro, Nigeria

by

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Abstract

Ilaro is a typical Nigerian traditional settlement that is becoming urbanized through major institutional and industrial establishments within and around. It and has started manifesting signs of internal decay and a close mix of tradition and civilization. This study focuses a core part of the township directly abutting its commercial and administrative precincts. It reveals a myriad of substandard housing and environmental conditions which were linked substantially, to the difficult terrains of the location and prevalence of poverty among the residents. Of the development yearnings in the study area, provision of potable water, good accessibility and control of erosion became topical. The study identified plausible sites for these and associated infrastructural upgrade and presented a blueprint design towards ameliorating the environmental qualities of the study area, devoid of any dislocation or dispossession of original residents.

Keywords: Conflict, Environmental degradation, Traditional settlement, Urbanisation, Upgrading

1.0 Introduction

Many towns and cities in Nigeria have evolved naturally without official master plans or layout. Their present status often result from establishment of major political seats, educational or industrial activities within them and the growth process has been rather adaptive and subtle. As challenges manifest by way of conflict between tradition and modernization however, various social and environmental contradictions are witnessed. The resolution of such conflict therefore requires tact and diligence to ensure equity and fairness in the search for development, orderliness and healthy environment. Fortunately however, concerns about transition of ancient rural communities to cities having contemporary standards of environmental and infrastructure state is not limited to Nigeria.

The paradox between economic advancement and the natural environment was expressed by Postel (2003) who posited that modern economic system defines 'progress' as not only perpetuating environmental deterioration but accelerating it.

Housing as an indicator of living standard, has been described as being more than mere shelter, embracing all the social services and utilities that go to make a community or neighbourhood a livable environment (National Housing Policy, 1991). According to Mabogunje (2005), housing is used as gauge of a person's standard of living, his status in the community as well as means of raising capital or capital formation. Studies have revealed that existing housing stocks in Iloro are characterized by poor layout, accessibility, drainage, refuse disposal and lack of basic amenities like water and toilet (Ajayi and Bamidele, 2008 and Olaniran and Yusuff, 2012). Ajayi and Bamidele (2008) traced incidences of silt and gully erosion in Iloro to the natural topography, land development and construction pattern which have resulted in collapse of buildings, exposed foundations and cracked walls, while also causing sand-deposits and potholes on roadways. Notwithstanding, the environmental challenges confronting the town are believed to be within manageable level except that the danger of escalation is imminent if the menace is allowed to grow out of proportion.

Generally, urban poverty in Nigeria has been on the rise, from 17.2% in 1980 through 37.8% in 1985 and 58.2% in 1996 to as high as 61.8% in 2010 (National Bureau of Statistics, 2005 and 2012). Invariably, it becomes difficult for poor urban dwellers to upgrade their deplorable living conditions. Karpagam (2003) aptly captured their plight in describing the demand for environmental quality as being highly income-elastic and a luxury item only sought after upon being assured of the basic necessities of life.

To address the problems, the traditional approach is that of urban renewal. SGS Economics and Planning (2015) defined urban renewal as a process of transforming often under-utilised and sometimes degraded or neglected parts of the city into spaces and built environments that meet contemporary living, working or cultural needs. The first major urban renewal exercise took place in the United States in 1949 and this involved "clearance of low-income housing and small buildings in downtown areas so that central business districts and public institutions could be expanded and enhanced" (Agbaje, 2013). Ever since, the conventional approach has always been to displace the poor 'slum' dwellers in the city core areas from their traditional residences and economic base. While the strategic importance of city centres could require economic re-structuring, it is believed that the original landowners should not be exploited and dispossessed with fiat. Rather, the city managers owe them the duty of compensating them for loss of environmental qualities which has resulted from the process of urbanization. Where this takes the form of infrastructure upgrade, land values are enhanced and re-development of dilapidated and substandard

housing units would be encouraged through a process of gentrification. Gentrification ordinarily, involves the process of the middle class buying over the strategic properties of the poor but this need not mean wholesome displacement as it could involve a development arrangement where the original poor owners retain occupation of parts of improved housing stocks. Even when displaced, this would have been achieved through arm-chair economic transactions devoid of social and political frictions common under conventional urban renewal programmes.

There has been a deluge of both researches and previous exercises to demonstrate that inner city decay can be revitalized through series of strategic intervention and infrastructure upgrade (Nobre, 1994 and Adegboye, 2013). Olanrewaju (2004) revealed how rehabilitation was found potent in improving the living conditions of a part of Akure, Nigeria. United Nations Habitat, (2010) reported among other things, the role that provision of secured tenure to land had on alleviating poverty among families living in the city core of South-East Asia. Accordingly, efforts in this study are geared towards remedying the rapidly decaying physical and environmental conditions of Ilaro core area with minimum disruption to the socio-cultural values of the original inhabitants.

Ilaro, a fast growing town in the western part of Ogun State, Nigeria which also doubles as regional capital of old Yewaland (erstwhile 'Egbado'), is one of such typically evolving urban centres. The existing housing stocks in Ilaro are characterized by poor layout, poor accessibility, grossly inadequate drainage system, absence of refuse disposal facility and difficult access to potable water. These are in addition to poor housing standards, many of which lack basic conveniences (like toilets) and are ill-ventilated. The poor management of its natural terrain has also led to massive erosion and flooding.

Meanwhile, one could observe that the environmental challenges confronting the town are still within manageable level except that the danger of escalation is imminent. This is attributable to the fast rate of physical developments arising from increased economic activities, especially following the establishment of nearby Ibese Cement plant and the supporting service industries. There is therefore a need to take proactive measures in curbing the menace, more so when the cement plant itself constitutes additional source of environmental risk. Apart from the foregoing is the fact that Ilaro is a host to a Federal Polytechnic having a school/faculty of environmental studies. An environmental management effort initiated by the Polytechnic would not only reinforce the relationship between the institution and her host community, it would also provide exemplary practical setting and training ground for her students.

2.0 Methodology

The study spans a period of May to September, 2015 including the reconnaissance survey, preliminary interactions with community leaders, actual field data collection and formulation of design proposals.

2.1 Field Survey

It involved total census of housing/building units (346 in all) and cluster survey of 155 individuals/housing of these (representing about 45%), with one resident sampled per housing unit. A questionnaire was prepared as checklist to document, among others, the residents' social and economic characteristics, the physical features of the buildings/structures, availability or otherwise of basic conveniences and their standards, as well as the state of infrastructure and their functionality. Actual field

survey was carried out by the four-man team with the help of another four trained assistants. Among the instruments used are smart measuring tapes, geographic positioning system and camera sets.

2.2 Interviews

In the course of the study, major stakeholders were consulted- individuals, groups and administrators. Some community leaders within the area were identified and interviewed. The team also interacted with the officials of the Community Development Department in Yewa Local Government Council on their perceptions and experiences with the community development Associations in the locality.

2.3 Analysis and Presentation

Data elicited were analysed using descriptive statistics. The existing patterns of development and infrastructure within the study area were drawn up using a combination of base map obtained from the Department of Urban and Regional Planning of the Polytechnic, and an abridged version of *Google Map*[®]. Thereafter, the proposed upgrading plan, infrastructural plan and 3-dimensional layout views of the proposed infrastructure were prepared.

3.0 Description of Study Area

The study area covered is quadrangular in shape from the Union Bank roundabout on Ona-Ola Road to the Ibikunle Road junction at the old Garage and along this latter Road unto the Leslie Road/Library roundabout, from there, following Upper Leslie Road to the Egbo Road junction, and turning right along it back to starting point. The choice of this portion is informed by its central location which is also abutting areas of concentrated commercial and public functions- outlying business shops and offices on Ona-Ola Road and Ibikunle Road, the diagonal opposite precinct housing Union Bank, Skye Bank, Access Bank and Wema Bank, as well as the proximate institutional establishments – Police Area Command, Prison Yard, the Court, the Local Government Secretariat as well as the Traditional Council Hall among others. This area therefore, does not only represent a critical zone where tradition and modernization meets but also the potential inner city core which must be developed.

The boundaries of the study area are edged red in Plate 1. It has the coordinates (latitude and longitude) 6.89135° and 3.02162° at Jubilee Estate/Union Bank junction, 6.89419° and 3.01823° at the Egbo Road/Leslie Road end, 6.89015° and 3.01528° at the Leslie Road/UAMC Roundabout and finally 6.88740° and 3.02117° at the UAMC Road/Ona-Ola Road or Old Garage junction.

The area covers approximately 29,487 hectares of land (as calculated using gps in the Appendix) with a total of 346 identifiable buildings/structures. Detailed statistics of the 45% sampled housing units are as shown in Table 1.



Plate 1: The Study Area (edged red)

Source: GMaps^R

4.0 Major problems with Study Area

4.1 Low standard of housing construction

As depicted in Table 2, 47% of sampled buildings are of mud construction while about 62% have their window openings cladded with wooden materials that seldom afford full enclosure nor capable of effectively preventing insects (including mosquitoes). In terms of size, some 40% of window openings were observed to fall short of average size that could allow for adequate room day-lighting and ventilation.



Plate 2: Collapsing Structures that are still dwelling homes (including 'c' with internal weeds).

Table 1: Description of Sampled Respondents

Variable	Frequency	%
Property Status		
Owners	102	65.80
Tenants	53	34.20
Age Group		
Below 21 years	3	1.94
21-40 years	51	32.90
41-60 years	69	44.52
Above 60 years	32	20.65
Educational Attainment		
No formal	33	21.29
Primary	32	20.65
Secondary	54	34.84
Post-Secondary	36	23.23
Occupation		
Unemployed	22	14.19
Students	9	5.81
Farming	5	3.23
Petty Trading	31	20.00
Artisans	32	20.65
Paid	21	13.55
Employment	7	4.52
Business	28	18.06
Retirees.		
Income Group	92	59.35
Low	51	32.90
Low-medium	12	7.74
Medium	0	0
Medium-high	0	0
High		
Reason for living in area	84	54.19
Family house	35	22.58
Proximity to	24	15.48
work	12	7.74
Affordable rent		
Other reasons		

Source: Field Survey, 2015

4.2 Derelict structures

Many dwelling units within the study area were in different stages of total or partial collapse, though still being occupied in their derelict conditions (See Plate 2 for typical dwelling units). Living in such structures is indicative of the level of poverty with the occupants under danger of imminent collapsing shelter while being highly vulnerable to infestations from insects and reptiles. Incidentally, most occupants of such units are the elderly.

Table 2: Description of Sampled Housing Units

ELEMENT	FREQUENCY	%
BOUNDARIES		
Unmarked	112	72.26
Partly fenced	31	20.00
Fenced	12	7.74
WALL MATERIAL:		
Mud	73	47.10
Brick	14	9.03
Block	68	43.87
FINISHING:		
None	72	46.45
Plaster	62	40.00
Paint	21	13.55
Tiles	0	0
ROOF CLADDING:		
Thatch	0	0
Corrugated iron	136	87.74
Asbestos	17	10.97
Aluminium	2	1.33
EXTERNAL DOORS:		
Wooden	114	73.55
Metal	38	24.52
Aluminium	3	1.94
WINDOW SIZE:		
Sub-standard	62	40.00
Average	47	30.32
Modern	46	29.68
WINDOW CLADDING:		
Wooden	96	61.94
Louvres	21	13.55
Metal casement	26	16.77
Aluminium	12	7.74

Source: Field Survey, 2015

4.3 Erosion

This is the most apparent environmental menace confronting this core area. Many of the access routes have been washed off. The few drain channels along the motorable service roads within the area have either collapsed or blocked with piles of un-cleared refuse. It was also discovered that several buildings had been lost to the spate of gully erosion while the foundation of many others have been weakened by the attack.



'a' (foundation fully exposed) 'b' (protecting structure from wash off) 'c'

Plate 3: The menace of erosion across different parts of study area

4.4 Filth and Indiscriminate Refuse Disposal

The area was found to be generally filthy and unkempt. A major cause of this is the location of a refuse dump at the central portion of the built-up area which contents were being spread to litter the streets and open spaces by breeze. Invariably, the refuse site with adjoining fallow parcel of land have provided haven for rodents, mice and reptiles that regularly infest neighbouring dwellings. Occasionally, the dump is set on fire thereby further releasing obnoxious fumes across the area. See Plate 4.



a b
Plate. 4: Heap of Refuse at the Igbo Ewe site (central portion of study area) in 'a', while 'b' depicts typical erosion course converted to refuse dump in Ona Osi Quarters

4.5 Inadequate water supply

The traditional settlement is mostly occupied by the low income and aged group. While there is no functional public water supply, there are pockets of commercial boreholes as provided by the few low-middle income dwellers. In addition, political activities have facilitated the digging of boreholes by some aspirants and/or players, with two of such located within the study area. However, these were often established to momentarily pacify electorates with no enduring strategies for their sustenance. Thus, as at the time of this study, only one of such was operational through rare cooperation of the abutting residents.

4.6 Sub-standard conveniences

Toilets and bathrooms are typical necessities in any living environment. Most of the residents have external toilets of pit latrine type while bathrooms are often built with old, make-shift corrugated sheets that seldom afford complete privacy. Plate 5 depicts a sample found on site.



Plate 5: A set of make-shift Kitchen and Bathroom within the study area

4.7 Limited motorable access due to haphazard developments

Many of the dwelling units lack defined access, and even those with access are not motorable. This is attributable to haphazard development characteristic of traditional settlements where hitherto family land had been fragmented without clear-cut layout. The absence of vehicles and close affinity among neighbours (often with filial relationships) could not have given room for necessity for any wide circulation space nor the thought of boundary demarcation and fencing.

4.8 Proximity of burial tombs to dwellings and water sources

A notable cultural practice in the study area is the prevalence of burial tombs within and around dwelling units. See Plate 6. This would not only emphasise the endowment effects that limits transferability of landed property by outright disposal but also constitutes one social factor against clearance and conventional urban renewal programmes. Unfortunately also, the area can only source potable water from wells and boreholes that are dug within seeping lengths from these tombs.



Plate 6: Typical Tombs Around Dwelling Units

5.0 Objectives of the Design

Ilaro is a traditional settlement and the study area represents the core of its historical setting. Accordingly, there is a need to blend preservation of culture and tradition with enhancements of the standard of living and environmental quality. Thus, the proposed infrastructure design had the following background objectives, to:

- i) ensure no residents are displaced or dispossessed of their property holdings by the primary upgrading works;
- ii) envisage that over time, neighbourhood upgrading tends to increase land values through an appealing and economically functional environment whereby gentrification (displacement of the poor's housing units by the wealthy for redevelopment into modern buildings) would then become a natural process of inner city renewal devoid of social conflicts a formal urban renewal programme could have generated;
- iii) make each dwelling unit within the study area accessible;
- iv) ensure each dwelling unit has proximity to public water (as against the subsisting private, commercial boreholes with unsecured sustainability and affordability), within acceptable radius, without having to cross any major motorable route;
- v) provide effective drainage system that will liberate the walkways, footpaths, roads and buildings from destruction by erosion;
- vi) achieve an hygienic living environment, free from litters and filth;
- vii) create a serene and appealing quality atmosphere having harmonious interaction of the built and natural environments;
- viii) create avenue for effective exposure of students of estate management and valuation in the town's Federal Polytechnic to their pivotal responsibilities in the management of built environment; and
- ix) entrench the influence and contribution of the Federal Polytechnic to the development and growth of her host community.

6.0 The Proposals

In realization of the subsisting condition of housing and the environment, study respondents were requested to score their preferences in terms of desired infrastructure upgrade for the community. The approach was to ask them to rank their top three desirable services and the result is as depicted in Table 3. The most desirable interventions expressed by the respondents included water (potable), access routes and drainage. While access to potable water has remained central to most urban dwellers, the poor terrain of the study area was observed to have hindered the digging of open wells by residents. The problem of access routes also has its link with unplanned developments and absence of erosion control. External intervention therefore becomes crucial for both. The electricity supply rated as fourth is however a national challenge and beyond the scope of this exercise. Refuse disposal system was ranked fifth, which is another self-generated environmental problem, especially among the urban poor the solution to which requires tact and persuasion. Also, security concern is a social problem and in respect of the study area, the obvious environmental threat to security is the large expanse of abandoned State Government land at Igbo-Ewe Quarters. Other rated interventions (toilets and employment) are beyond the direct focus of this proposal, but toilet provision, part of housing facilities identified to be substandard, would subsequently receive indirect redress through post-upgrading planning enforcement.

Table 3: Respondents' Scoring of Desired Improvements to Neighbourhood Infrastructure

CHOICE	SCORE (Maximum of 465)	RANK
Water	125	1
Access roads	78	2
Refuse disposal	52	5
Drainage control	72	3
Employment	6	8
Security	15	6
Electricity	63	4
Toilet	10	7

Source: Field Survey, 2015

6.1 Refuse Dump Clearance, introduction of refuse collection

The existing refuse dumpsite is to be evacuated to a location to be agreed with the Yewa Local Government Council, preferably in the outskirt of the township. The smaller dumps near the dwellings around Ona-Osi Quarters (being undeveloped plots now converted) would also be cleared and discouraged from further usage. As replacement, solid waste shall be organized to be disposed into plastic drums to be collected on weekly basis at a self-sustaining cost. A disposal van would have to be procured for this purpose. The Ogun State Government would be formally requested to as a matter of urgency, fence up their un-utilised Jubilee Estate land that has remained hazardous and security-risk to residents of the neighbourhood.

6.2 Drainage networking across

The relief and soil terrain of the study area make it highly vulnerable to surface run-off. Generally, the entire area slopes towards Ibikunle/Oja Odan Road from the Union Bank/Egbo Road direction. Except the Upper Mission Road and Ajayi Road both of which cut through longitudinally, as parallels of Leslie Road

and Ndoji Road respectively, there is no provision for drainage across the settlement, with one along Ona Osi Street virtually collapsed and in dis-use. Rather, there is free flow of erosion digging up the few available access routes while most of the mud houses have been caving in to persistent attacks on their foundation by swift-running erosion.

Accordingly, as shown in proposed design, the team has identified plausible courses for channeling rainwater across the settlements, taking advantage of the natural slope towards UAMC/Ibikunle Road. A total of three courses have been earmarked for construction and are edged in blue colour in the figures.

6.3 Road Rehabilitation, access creation, car parking

Many premises were found not to have defined access and in some cases, a whole compound of houses lack vehicular access from distant lateral routes. By taking points of least resistance, and following existing footpaths, four roadways have been introduced, often ending in 'cul de sac' to provide vehicular access as close as practicable to each dwelling. All other existing roadways are to be upgraded and tarred. See example in Plate 7 for Ona Osi Zone.

6.4 Traffic Diversion

The Olu of Ilaro and paramount ruler of Yewaland in a correspondence to our team however requested that the traffic gridlock gradually developing along the Ona-Ola Road from the Jubilee Estate/Union Bank Round about towards Post Office be looked into with a view to 'turning some of this road one way'. In this light, our team identified the feasibility of making the narrow portion of Ona-Ola Road a one-way traffic from the old Garage junction onto Jubilee Estate/Union Bank Roundabout while traffic from this point towards old Garage would be diverted through Egbo Road onto Igbo Ewe Road, linking UAMC/Tunde Ibikunle Road with a roundabout created on this latter Road to receive the oncoming traffic (See Plate 8 and the Proposed design in Appendix for details).



Plate 7: Ona Osi zone of the study area depicting proposed Roads (thick black)

6.5 Drilling of Boreholes and rehabilitation of the disused

According to 'The Sphere Project' (2014), the maximum distance of water point to any household should be 500 metres with queuing time at water source not to be more than 30 minutes. World Health Organisation however expect water source to be within 1,000 metres of the home but also with collection time not exceeding 30 minutes (United Nations Department of Economic and Social Affairs, 2014). Our team has identified the abandoned boreholes and located three additional sites where borehole facilities should be provided nearer to residents.

6.6 Planting of trees and shrubs

A possible way of curtailing the action of wind and surface erosion across the study area is by planting trees and shrubs around dwellings, in addition to the roadways. Thus, auspicious spaces across the study area have been earmarked for planting of trees and shrubs both for erosion control and scenery, as shown in the proposed design.

6.7 Facilitation of Land valorization

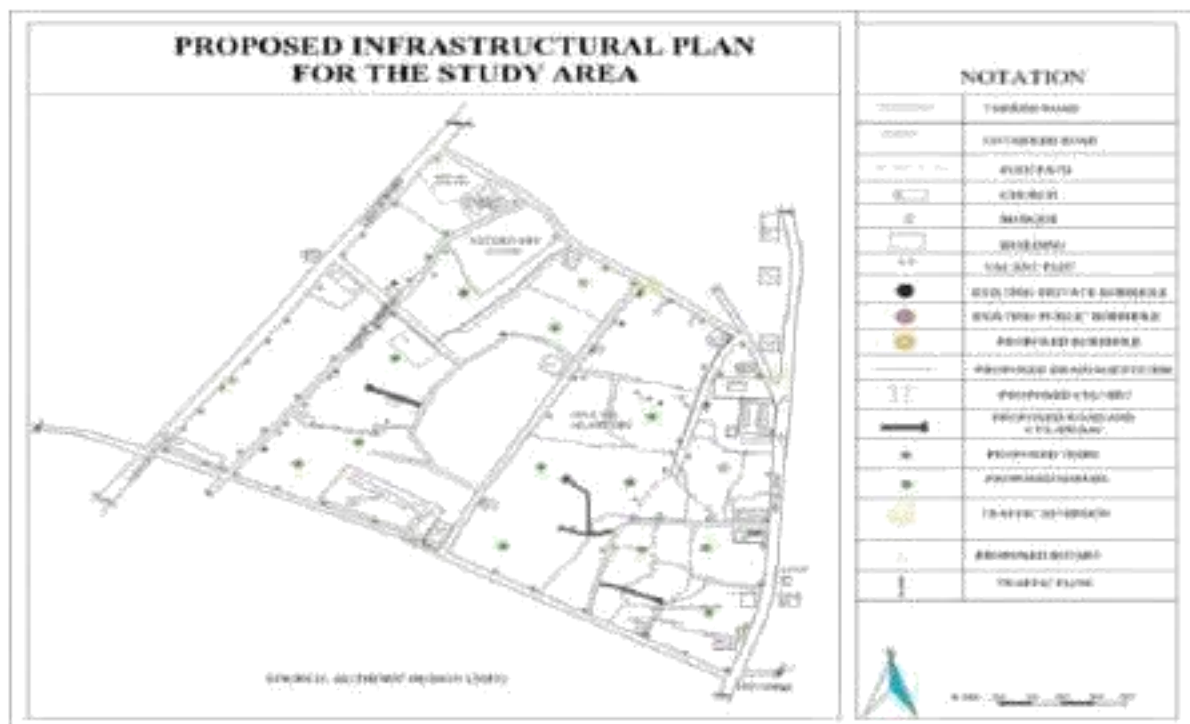
A way of reducing poverty among the residents is to create economic value for their traditional landholdings. In this respect, authenticated owners of properties within the study area would be guided and assisted to take advantage of the *Homeowners' Charter* of the Ogun State Government in securing formal titles over their properties. The title documents would readily become tenable for small business or re-building loans, with the lender appreciating the secured and economic worth of such central sites.



Plate 8: *Proposed Traffic Diversion at Jubilee Estate/Union Bank Junction*

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3-Dimensional overviews of proposed infrastructural layout



