Urban Poverty and Residential Environment Degradation in Calabar Area of Cross River State, Nigeria

Dr. Andrew-Essien[1] and Oluyemi A.[2]

[1] University of Calabar, Calabar

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Abstract

In recent times the problem of environmental degradation of urban areas in Nigeria has reached an unprecedented proportion. This phenomenon which is prevalent in both residential and industrial areas is caused by increased population growth, unsustainable use of resources, rapid industrialization, unemployment, income inadequacies as well as inefficient or non-existing waste management strategies. This study examines the contributions of poverty as a reflection of income inadequacies and disparity to the availability of waste disposal facilities and its role in environmental degradation in Calabar urban area. The research objectives are achieved though the identification of the disparity in household income distribution. An assessment of the quality and quantity of waste disposal facilities available to housing units is made using primary and secondary data. The findings reveal a wide pattern of disparity in household income and waste disposal facilities. It is observed that the high density residential areas of Calabar South Local Government are not well served in waste management facilities resulting in environment degradation. The medium and low density residential areas within the municipality are better served resulting in proper waste management. The opinion of residents within the urban area is that government should be solely responsible for waste management.

Index terms— Unprecedented, industrialization, unemployment, income inadequacies.

1 INTRODUCTION

rban areas are characterized by indices of modernization which trigger development and inadvertently propel the functionality of the urban hub or economy as nerve centers for enhanced investment, production, and distribution. This further drives the urban center to hold a stock of manpower supply for capacity development (Bedung et al 2003). All too frequently, urban areas in the Third World strive to meet the demands of modernization in the face of deprivation of basic infrastructural facilities that result in poverty. Poverty has been described as a multidimensional situation and process of serious deprivation or lack of resources and materials necessary for living within minimum standards conducive to human dignity and well being. It is a situation whereby the basic necessities of man are either absent or exist in negligible quantities or state. Thus, a country may be classified as being poor, when such basic amenities as good road, shelter, portable water, medical services, job opportunities and conducive living environment are lacking or inadequate **??**World Bank 2000 **??** NEEDS 2000, and Shamaki 2006).

Various factors account for urban poverty and these include amongst others low income, low educational attainment, lack of skilled manpower development, rapid population increase, (World Bank 2000,). The contributions of urban poverty as a factor in residential environment degradation cannot be over-emphasized given the significance of a healthy environment to the sustainable development of a people. The quality of residential environment is pointed out to be as if not more important than the quality of the environment in

which people exist. This is highlighted in contemporary times by high level of unemployment, emergence of shanty towns, problems of waste disposal and population pressure on existing anachronistic facilities. Bradford and Kent (1993) related housing quality and environmental degradation to income and regional economic trends, while Short (1984) assessed out that in comparison to the cities of the developed countries, housing in the developing (and inevitably under-developed) countries is relatively of much poorer quality with the poorest-quality housing facilities found on both sides of the equator covering such countries of Latin and Central America, Africa and Asia.

In Nigeria, the distribution of poverty along the six geo-political zones indicates 72.2% for the North East; 71.2% for the North West, 67.0% in the North -Central, 43.0% in the South -West, 36.1% for the South-South and 26.75 for the South-East (Central Bank of Nigeria Report 2005). Within the South South, Calabar urban area of Cross River State apart from its industrial area is the product of old and newly built-up residential areas. The old houses are manly dilapidated and located in the traditional area nearer to the king's historical palace and the old sea ports. Other areas with old houses include areas inhabited by the Quas and Efuts ethical groups. Mbukpa, Edibe-Edibe, Afukang and Anantigha in Calabar South Local Government Area stand out as major areas of residential environment decay. Yet, why do people choose to live here?

The built residential areas in Calabar include the Federal and State Housing estates, and both the University of Calabar and Cross River University of Technology (CRUTECH) Staff housing estates. Other areas include the New Parliamentary extension, Ekorimim, Eight Miles, the Military Barracks and other estates show distinctively that there is noticeable inequality in the spatial distribution of population and housing units with various levels of qualities. This is probably dictated and characterized by different levels of income, social status, and housing qualities. What factors opportune the residents to live here? This research aims at gaining an insight into the contributions of poverty as a reflection of differences and inadequacies in household income to choice of residential location, availability of housing facilities relevant for waste management in the residential environment of Calabar, Cross River State of Nigeria. The findings of this research is of significant importance to government and non government efforts at poverty eradication, urban renewal and sustainable development II.

2 SHOULD POVERTY DETERMINE HOUSING ENVIRONMENT DEGRADATION?

In recent times the rapid increase in urbanization has reached an unprecedented level as distribution of income regionally and of household quality, have continued to increase, thus becoming a major source of concern to different tiers of government and non government organization (NGOs). The complicity brought about by the rapid rate of ruralurban migration and industrialization in developed and developing countries alike have resulted in the emergence of urban problems with socio-environment and health dimension in cities. The problems of inadequate or non-existing housing amenities, air pollution, noise pollution, increasing crime rate, environment degradation through poor waste management, unemployment and income inadequacies, slums and charity towns emergence have become major nightmares to urban researchers and governments almost every where in the world.

The contributions of poverty as a reflection of income inadequacies resulting from unemployment or under-employment as well as inadequate residential housing facilities, especially for waste management, and residential environment degradation in Nigeria have in the past also attracted much attention in Nigeria. For example, most urban renewal and modification programmes have been concentrated in urban areas where residential housing quality is low for both the low and middle income grouping.

These areas are populated by housing units with inadequate domestic and recreation facilities such as domestic waste-water disposal facilities. Where they exist, communal utilization and over-usage ensues. This consequently results in environmental degradation

The situation in Calabar urban area of Cross River State has slightly been less severe when compared to other states in the geo-political regions in Nigeria (Central Bank of Nigeria Report 2005). Eni (1999) and Sule (2001) however point out that there are differences in the quality of existing housing facilities as the level of environmental degradation in different areas of Calabar urban is steadily on the increase. The growing level of industrialization triggered-off by economic growth has herald the influx of new banks and insurance outfits, service providers and government agencies. The resulting consequence translates to direct needs for housing units which often are not be readily available. This will inevitably exert undue pressure on existing residential housing and waste management facilities, thus further reducing environmental quality. In view of the above there is a need to study and identify the contributions of income inadequacies to environmental degradation, availability of waste management facilities and the perception of respondents in the other study area to the existing environmental management processes.

3 III. POVERTY AND RESIDENTIAL HOUSING DEGRADATION NEXUS IN CALABAR

There exists diverse literature on problems and causes of housing facility inadequacy, the contribution of increasing residential population on housing residential as well as household environment degradation and waste management. (Marris (1965), Abraham (1970) Jones (1972) Akinola, (1978) Sule (1981), and International

Bank for Reconstruction and Development / World Bank, 1990) However, there exists scanty literature relating poverty and environment degradation in Calabar urban area particularly. Housing environment and residential housing facilities in Calabar have been examined by which show that the quality of the residential environmental is considerably if not much more important than quality of the environment. **??**abogunje (1970) and **??**nakerhoraye (1984) in the assessment of residential environments and policies identified that the dearth of adequate facilities in most urban residential areas are at variance with relevant policies. Studies by **??**ni (1999) in Calabar confirmed a growing trend in housing environment facilities deterioration particularly with the increasing population. In other to assess the extent to which poverty affects the residential environment, this study selects residential areas based on average household income distribution levels and assesses the available residential housing waste management facilities in each residential area, while identifying the mode of household waste disposal in the study area. Also the study considers the perception of household members in the study area concerning waste management strategies For the collection of primary data, the entire study area was sub-divided into sampling zones based on existing area nomenclature.

On each street, using existing nominal street numbering system, every third numbered house was selected for sampling. This is done to ensure that sampling is randomly done on both sides of the streets. Where there are more than one distinct household in a house (or compound) with the same number in an area not large enough for the number of samples required not more than two households are selected. The statistical model of analysis employed for this study is the percentages and arithmetic averages. The poverty determinant is examined using the International Bank for Reconstruction and Development income level of 257-370 US Dollars per person in a year. Only household member of 18 years and above were considered in determining the average household income.

V.

4 RESULTS

Table 1 shows data collected on income distribution pattern of sampled households in the study area. The residential areas considered include Mbukpa, Edibe-Edibe, Ekpo-Abasi, Afukang Orok-Orok, Etta Agbo and Parliamentary area which fell under the poverty line i.e. average household incomes divided among all household members aged 18 years and above was below $257, which is the minimum (least) for the $257 -370 range recommended by the International Bank for Reconstruction and Development and World **??**ank (1990). The table also shows that the second group which includes University of Calabar and CRUTEC fall within the middle income group, and slightly above the poverty level. The third group include the respondents interviewed in the Federal, State Housing estates who because their incomes were very slightly higher than the second group were grouped in the high income group. The average incomes of the first group were highly reduced by the high average population of about 6 people in a household. The population of the middle income group was the lowest (about 4 persons), while the high income group had an average of about 4.5 persons.

This considerably influenced the average incomes. In the first group although about 69% of the population was below 18 years the average income was relatively impacted due to low individual incomes. Thus the three income groups were delineated and presented in a tabular form : Given the data above, the need to understand the reason(s) for the choice of residential areas is relevant to this study. Why do some households reside in areas with adequate facilities, while others choose to reside in dilapidated areas of the city? Table 2 shows primary data on factors responsible for choice of residential areas in Calabar Urban Area. Only 550 Household heads were interviewed and their responses are presented for assessments. The most indicated factor is "Income/ Affordability"(230 household heads or 41.81 percent). The least reason was "No Consideration" (4 households or 0.73 percent). The second highest response of 94 (17.10 percent) was for "Availability" of housing and type(s) of facilities available. The data set thus shows that income largely influences where people live in the study area. This shows that income is most likely to dictate the choice of residential area by a household, although other factors are important. Below poverty level, affordability may become great restrain limiting household to grossly undesirable sections of the urban area, with least housing facilities. Given the relatively high population and low educational levels of this group, it could result in higher rates of housing environment degradation.

Data in table 3 provides an insight into the pattern of residential housing facility availability in sampled households. It is presented below: It is noticed that, in high income areas, the number of households with modern toilets and bathrooms as well as good networks of water drainage are highest. Areas with low income do not have adequate modern facilities. The number of households with none of the specified facilities was found largely in low income areas. The non -availability or inadequacy of such household waste management facilities will inevitably result in spill-over of such wastes into the residential environments resulting in environmental degradation.

Table 4 present primary data collected on disposal sites for evacuated household wastes. Household heads, children or other adults responsible for waste management were interviewed. Only 50 households were selected in each residential area, giving a total of 550 households. The highest figure of 205 households or 37.27% indicated that their household wastes are usually deposited at "Designated waste disposal sites". The next highest figure of 158 households (or 28.72%) indicates "Drainage systems along major and/or minor streets, (During rainfalls)" as their site of household waste management. The least indication of 4 households or 0.73% was for Inter-urban roads deposition.

Respondents indicate that "Rainfall duration" is the most convenient time or period to evacuate household wastes, as rain-water flow inevitably washes (carries) the waste materials /substances into the gutter and surrounding water bodies such as the river and ultimately into the Ocean. The cost of waste material transportation may have reduced the choice of "Interurban roads" (72 households or 13%) as an option. There is a general indication based on the data collected, that these household members about, 96% of which reside in the low income (below poverty level) areas considerably contribute to the deterioration of the urban residential environment.

Table 5 shows data collected on perception of respondents on who should facilitate household waste evacuation. The options provided to respondents include government agency, private/commercial agency and lastly household members. Notably, distinctions were made between the first two options, since a government may in practice contract a private/commercial waste management agency. In this study, however the commercial waste management agency are those contracted and paid for directly by households.

Table 5 shows that respondents from the three income groups (1063 household or 96.63%) generally indicate that the evacuation of household wastes should be done by government agencies from public tax. A total of 032 households or 2.91% of the total 1100 (100%) households sampled suggested that private/commercial wastes management agencies will perform better, or are most suitable. The least indications (5 households or 0.46%) for "Household members" by respondents, is largely from the low income group. This group observably can not afford such extra household expenditures. (See tables 4 for possible implications of household member dependent waste management (evacuation).These have implications for waste management policy formulation in the state.

5 CONCLUSION

It is observed that there is wide disparity in household incomes of respondents which could be matched aggregately with the areas in which they reside. Income largely influences the choice of residential areas, along with other relatively less considered factors. There is a high level of poverty complicated by high household population in low income areas.

The quality of housing facilities available in low income residential areas is very low and inadequate in quantity, while high income areas have comparatively high levels.

Household wastes evacuated by household members are deposited in numerous forms, including residential and non-residential areas.

The general consensus is that government agencies should be responsible for waste management. This and other observations should be reflected in policy formulation in the state, and other similar places inside and outside Nigeria VII.

6 RECOMMENDATIONS

Recommendations preferred to observed problems include the involvement of government and relevant private instructions in the enforcement of the following: [1] [2] [3]

Figure 1:

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1

N	N/S	Residential area	N/H	Average annual household salary	Parameters for determining poverty level	Classification (poverty level)	Classification (income group)
1.		Mbukpa Area	50	N14,246	$ $257-S370/per/year (N N 37,950N51.060)	Below	Low Income
2.		Edibe-Edibe	50	N16,546	„	Below	Low Income
3.		Ekpo Abasi	50	N22,063	„	Below	Low Income
4.		Afokang area	50	N N15,356	„	Below	Low Income
5.		Orok-Orok	50	N N17,421	„	Below	Low Income
6.		Etta Agbor	50	N N38,221	„		
7.		Parliamentary area	50	N N39,452			

Figure 2: Table 1 :

2

R	Reasons for choice of residential area	No. of household heads	Percentages %
1.	Income/Affordability	230	41.81
2.	Availability/ Facility adequacy	94	17.10
3.	Relations/Association/ family compound self ownned	53	9.63
4.	Proximity to plasce of work	78	14.18
5.	Company /government provided residence	48	8.73
6.	Nearness to children's school	31	5.63
7.	No consideration	16	2.92
	Total Percentages	550	100

Figure 3: Table 2 :

3

Urban

Figure 4: Table 3 :

4

S S/N	Sites of Evacuated Household wastes Disposal	Responses (number)	Percentage %
1	Designated waste Disposal sites	205	37.27
2	Uncompleted building sites	054	9.81
3	Intra-Urban Roads	004	0.73
4	Intra-urban Roads (Not in Drainage system)	072	13.10
5	Drainage system along major/ minor streets (Non-Rainfall Periods)	021	3.81
6	Drainage system along major/ minor streets (During Rainfall Periods)	158	28.72
7	Open Fields/ buhes Within City	036	6.55
	Total	550	100

Figure 5: Table 4 :

5

S/N	Name of Residential area	Government Agency	Private/ Commercial	Household members
1	Mbukpa Area	098	00	02
2	Edibe-Edibe	097	01	02
3	Ekpo Abasi	100	00	00
4	Afokang	99	01	00
5	Orok-Orok	100	00	00
6	Etta Agbor	088	11	01

Figure 6: Table 5 :

1. Appropriate housing policies and adequate monitoring with practical approaches to implementation.
2. Strict compliance to building regulations and waste
3. facilities provision

Figure 7:

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