

Planning Implications of Urban Housing Deterioration in the Core Areas of Ilaro, Ogun State

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Abstract

Housing is one of the basic needs of life and the deterioration of houses is an expression of low quality of life. An Area sampling technique was adopted and 3 political wards of the study area were identified, and the old age housing development was selected from each ward, making a total of 3 selected areas. From the sample size computation, the sample size is 225 buildings, with Pahayi Area having 103 buildings, Agosaga with 86 buildings, and Modeolu with 36 buildings. Data were collected on the housing characteristics and the socio-economic characteristics of the respondents, while the conditions of the houses were assessed in order to determine the levels of deterioration. A cross-examination of the ages and conditions of houses were carried out, and a correlation analysis was adopted. Result shows $r_s = +0.5$, and this indicate a moderate association between the two variable. Urban Renewal scheme was recommended for an improved housing quality in the study area.

Keywords: Housing Condition Housing Deterioration, Urban Area, Urban Renewal.

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I. Introduction

Fabiya (2011) identified urban deterioration as an indicator of urban decay and that the factors that influence urban growth also contribute to its decay. The urban decay is conceptualised by Negera (2012) as a prevalent and substantial physical deterioration that impairs the proper utilisation of affected housing, the health, safety and welfare of the people in the community. The poor condition of the urban area therefore represents the physical condition of an area as against the socio-cultural aspect of the neighbourhood in the city.

Urban housing is a major integral part of urban development and is therefore an important index in measuring the performance of urban areas in the fulfilment of the expected urban developmental goals. Urban growth and development are fundamentals of urbanisation, which are expressed in multiple dimensions and on different levels of urban scale. It is on this premise that Ayeni (2016) attributed urban problems to its complex nature when urban planning is not accorded its rightful place in solving urban problems both in the present and future terms, within the context of sustainable urbanization.

However, Adeoye (2015) has noted that the urban housing decay is a negative consequence of urbanisation, and it is expressed in terms of housing deterioration within the physical, social and economic dimensions, while Alade et al (2021) have established twenty-three (23) indicators for measuring urban decay, that were disaggregated into physical, economic and social factors. It is important to note that a strong relationship between socio-economic and urbanisation trend has been drawn by Awe et al (2023), and rapid urban process, inadequate provision and maintenance of housing with poor quality of infrastructural facilities were identified as causes of urban deterioration in Nigeria.

It is worthy of note that Aluko (2010) has attributed the causes of urban housing deterioration to high level of population concentration in major urban areas of developing countries, and a mismatch in the population and the available facilities have resulted into various negative consequences. Agbola and Ayeni (2016) have pointed out that housing deterioration expressed in terms of urban housing decay is a bane to urban development, with its negative ripple effects on urban dwellers' wellbeing. Daodu and Famewo (2021) have earlier identified urban deterioration to be an outcome of urban changes and that the analysis of these change is a veritable tool to disaggregate the generalised concept of urbanisation into four (4) distinct spatial-demographic phenomena of interest namely; urbanization; urban growth; urban expansion; and urban system.

Yoade (2015) has identified a fundamental platform on which the urban housing deterioration is expressed within the context of urban spatial analysis to include the analysis of urbanisation based on; the increasing urban population; spatial expansion which react to the growth; changes in the character of urban land uses; and the urban system which is expressed in terms of the functions and interdependency of towns and cities within the urban geographical limit. The characteristics of housing deterioration expressed in the study area vary from one zone to another and this differentiation follows the housing developmental trend within the context of

building ages. The importance of the use of building age as a parameter for assessing developmental trend in housing cannot be over emphasised as this becomes an analytical tool when other variable such as conditions of the buildings is juxtaposed for the purpose of making logical conclusion.

The classification of housing development for the purpose of analysing its characteristics in the study area (Ilaro) takes into cognisance the ages of buildings in which the core areas are identified. These classifications are; the old age housing development zone (with buildings of 50 years and above); the middle age housing development zone (with buildings between 15 years and 49 years); and new age housing development zone (with building less than 15 years). It is important to note that the core areas are characterised with the old age housing development zone and the trend of urban growth expressed within the context of the morphology of the settlement are basic considerations.

Hence, the aim of the study is to assess the planning implications of the urban housing deterioration in the study area. However, the assessment of the housing conditions of selected buildings in this zone becomes imperative, while the overall assessment of the environmental qualities is a major aspect of this study in order to empirically establish the implications of these qualities to urban planning.

II. Methodology

The Study Area

Ilaro is the study area and the town is located in Yewa South Local Government Area of Ogun State. It is the administrative headquarter of the Local Government. The town shares boundaries with many neighbouring towns and villages. To the north is bounded by Ibese, and to the south is bounded by Iwoye, while Olorulekan and Oteyi serve as border settlements in the east and west respectively. The town is geographically located on latitude 6.53'20"N and longitude 3.01416'E, with a land area of 8.8km². Papalanto- Obele road and Ilaro-Owode road serve has major corridors of the town and its location can be described as a nodal town with both social and economic influence on the surrounding settlement in the sub-region (Yewa South Sub-Region).

The location of The Federal Polytechnic, Ilaro, in 1979 contributed immensely to the growth and development of the town. The transformation of the town owing to the establishment of the institution is evidence in the increase in population, intensification of commercial activities, and the changes in the social activities. Hence, the urbanisation of Ilaro is greatly linked to the location of the institution and this has influence on housing characteristics both in term of housing densities and qualities. However, the location of the headquarters office of Yewa South Local Government in Ilaro has great impact on the housing development, particularly within the service radius of the Local Government Secretariat, while the location and operation of Dangote Cement Factory at Ibese has further increase the demand for housing in Ilaro and contributed to the socio-economic growth and development of the study area.

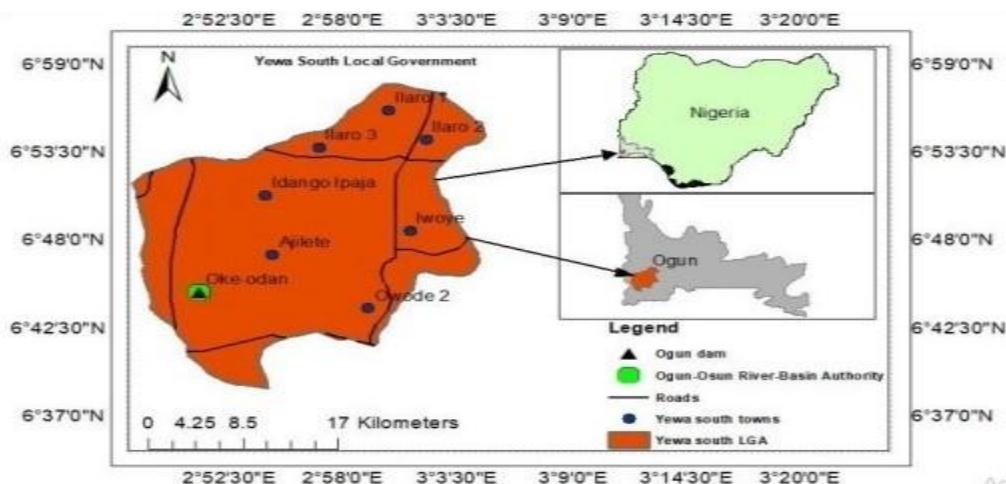


Fig 1: Map of Yewa South Local Government Area showing Ilaro



Fig 2: Street Map of Ilaro

Population, Sample, and Sampling Technique

The population for this research is the total number of residential buildings in the zone (that is the old age housing development zone), and this population represents the aggregated of residential buildings of the zone in each three (3) wards of the study area. The characteristics of the residential buildings in terms of the ages of the buildings are important factor considered, and it is on this premise that housing development zones are identified. The total residential buildings in Pahayi is 238 buildings, while for Agosaga is 198 residential buildings and for Modeolu is 82 residential buildings, making a total of 518 residential buildings in the three under studied areas.

Sample and Sampling Technique

An Area sampling technique was adopted based the three (3) political wards of the study area, and an area of the old age housing development was selected from each of the ward, making a total of three (3) areas selected for the study. The determination of the old age development zone was informed by Farinmade et al (2021) who argued that a traditional urban centre in Nigeria revealed three (3) contrasting residential zones linked to historical period and these are; pre-colonial development; the development between pre-colonial and post-colonial, and the post -colonial development. Each of these clusters (zones) is observed to be internally homogeneous in terms of housing characteristics and environmental qualities.

Table 1: Political Wards in the Study Area, and the Selected Areas

Ilaro Ward I	Ilaro Ward II	Ilaro Ward III
State Hospital Area *	Agosaga Area ***	Oronna Town Hall Area ***
Soyinka House Area **	Upper Lesile Area **	Ileba Quarters *
Otegbeye Area ***	Upper Mission Area**	A.U.D School Area **
Oba Fasina Close Junction Gbokoto *	Udoji Area **	Ahmadiya Nursery and Primary School Area **
Egbo Alaparun ***	Ona Otun Area	NUD School Area **
Pahayi ***	Ona Osi Area	Kumoye Area **
Orita Kajola	Oke – Ela *	Gbogidi Area **
Ijanna Road Area *	Oju Iyewa Area	ESG School Area **
Ita Iyalode Area**	Ona-Ola Area **	Modeolu Area ***
Oke-Ola Area *		R.C.M School Area **
Poly. Gate Area *		Olorunsogo Area***
Library/Rural Health Centre Area **		Oke-Okuta Area **
Orisun Iran/Ilobo ***		
Sarumi Area *		

Source: Culled from the Electoral Wards in Ilaro Polling Wards. (2024)

Note: The Old Age Development Area (***), Middle Age Development Area (**), and New Age Development Area (*)

A random sampling method was adopted in the selection of an area of old age housing development within each ward. For Ilaro Ward 1, Pahayi is selected, while Agosaga Area is selected in Ilaro Ward II, and Modeolu Area is selected in Ilaro Ward III.

Yamane Sampling Size Method of Computation was adopted in determining the sample size:

$$n = N \div (1 + (e)^2)$$

Where n = the sample size

N = the population size

e= the acceptable sampling error 95% Confidence level,

and P = 0.05

N = total number of occupied flats multiply by the average household size. N= 9

$$n = 518 \div (1 + 518 (0.05)^2)$$

$$n = 518 \div (1 + 518 (0.0025))$$

$$n = 518 \div (1 + 1.3)$$

$$n = 518 \div (2.3)$$

$$n = 225$$

The sample size is 225 buildings.

Out of the sample size, 103 buildings were selected in Pahayi, while 86 buildings were selected in Agosaga, and 36 buildings were selected in Modeolu.

Table 2: Analysis of the Sample Frame for the Selected Area

Area	Number of buildings	Percentage	Sample frame	Percentage
Pahayi	238	46	103	45.8
Agosaga	198	38.2	86	38.2
Modeolu	82	15.8	36	16
Total	518	100	225	100

Source: *Author's field Survey, March 2025*

The percentage of the total number of buildings in each area is used to determine the number of buildings to be selected as samples for each area based on the calculated sample size, as indicated in sample size computation using the Yamane Sampling Size Method of Computation.

A structured questionnaire is used to collect data on the socio-economic characteristics of the selected residents in the three identified zones, while housing condition assessment was carried out through the use of assessment chart with assessment variables. Both descriptive and Spearman Rank Correlation statistical analysis were adopted, while ideographic presentation was used in the presentation of data. It is important to note that the correlation analysis was used to establish any significant association between the ages of the residential buildings and the conditions for the purpose of making logical conclusion on the two variables; $rs = 1 -$

$$\frac{6ed^2}{n(n^2-1)}$$

III. Results and Discussions

Results

Housing Tenure

The housing tenure is an aspect of housing that deals with the ownership of house from the perspective of the occupier. It is a data on the status of the occupier of the house, and four categories of housing tenure were identified in this research, namely; owner occupier, family housing, rental and squatter. Table 3 shows the housing tenure composition of the sampled houses.

Table 3: Housing Tenure

Housing Tenure	Pahayi Area		Agosaga Area		Modeolu Area	
	Freq.	%	Freq.	%	Freq.	%
Owner Occupier	18	17.5	8	9.3	-	-
Family Housing	11	10.7	45	52.3	34	94.4
Rental	74	71.8	33	38.4	2	5.6
Squatter	-	-	-	-	-	-
Total	103	100	86	100	36	100

Source: *Author's field Survey, March 2025*

From Table 3, rental has the highest frequency with 74 buildings out of 103 buildings, representing 71.8% in Pahayi area, while in Agosaga, family housing with 45 buildings out of 86 buildings, representing 52.3% and closely followed by rental buildings with 33 buildings, representing 38.4%. However, family housing was dominant in Modeolu with 34 buildings out of 34 buildings, representing 94.4%

The Ages of Sampled Buildings within the Identified Clusters

The ages of is an important aspect of this research bearing in mind that logical conclusions are drawn when the ages of buildings are cross examined with the condition of buildings. The cross examination of these two variables may offer fundamental basis to the issues relating to housing maintenance, and construction material and its quality. It is important to note that ages of buildings are basis for understanding the trend of building design when a wide gap in changes is identified. Table 4 shows the analysis of the ages of sampled buildings within each of the sampled areas.

Table 4: Analysis of the Ages of Sampled Buildings within the Sampled Areas

S/N	Ward(s)	Year	No of Buildings	%
1	Ilaro Ward I: Pahayi Area	Less than 10 years	4	3.9
		10 years- 30 years	74	71.8
		Above 31 years	25	24.3
		Total	103	100
2	Ilaro Ward II: Agosaga Area	Less than 10 years	3	3.5
		10 years- 30 years	37	43
		Above 31 years	46	53.5
		Total	86	100
3	Ilaro Ward III: Modeolu Area	Less than 10 years	-	-
		10 years- 30 years	5	13.9
		Above 31 years	31	86.1
		Total	36	100

Source: Author’s field Survey, March 2025

In Table 4, 74 buildings out of 103 buildings are between 10years-30years years in Pahayi (representing 71.8% of the total number of building in the area), while 46 buildings out of 86 buildings are also above 31 years in Agosaga (representing 53.5% of the total number of building in the area), and 31 buildings out of 36 buildings are above 31 years in Modeolu (representing 86.1% of the total number of building in the area).

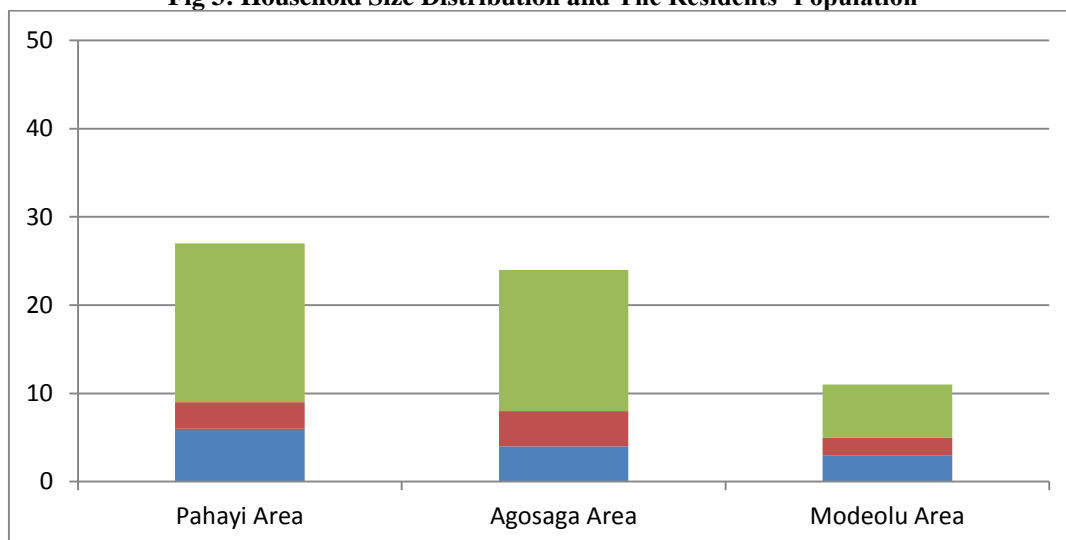
Socio-Economic Characteristics of the Respondents

The socio-economic characteristics of the respondent are imperative in this research as the variables such as the family sizes, occupation, and income are very important factors in the determination of the adequacy or otherwise of housing facilities and their maintenance. However Afolayan and Etoniru (2016) have established the fact that a significant correlation exist between the income of residents and the level of maintenance, and that this association is fundamental in assessing the condition of residential houses.

Household size

The household size analysis of this research include; the average number of head of households per building, the average household size, the average population in each building, the number of sampled buildings and the population of residents of the sampled buildings.

Fig 3: Household Size Distribution and The Residents’ Population



Source: Author’s field Survey, March 2025

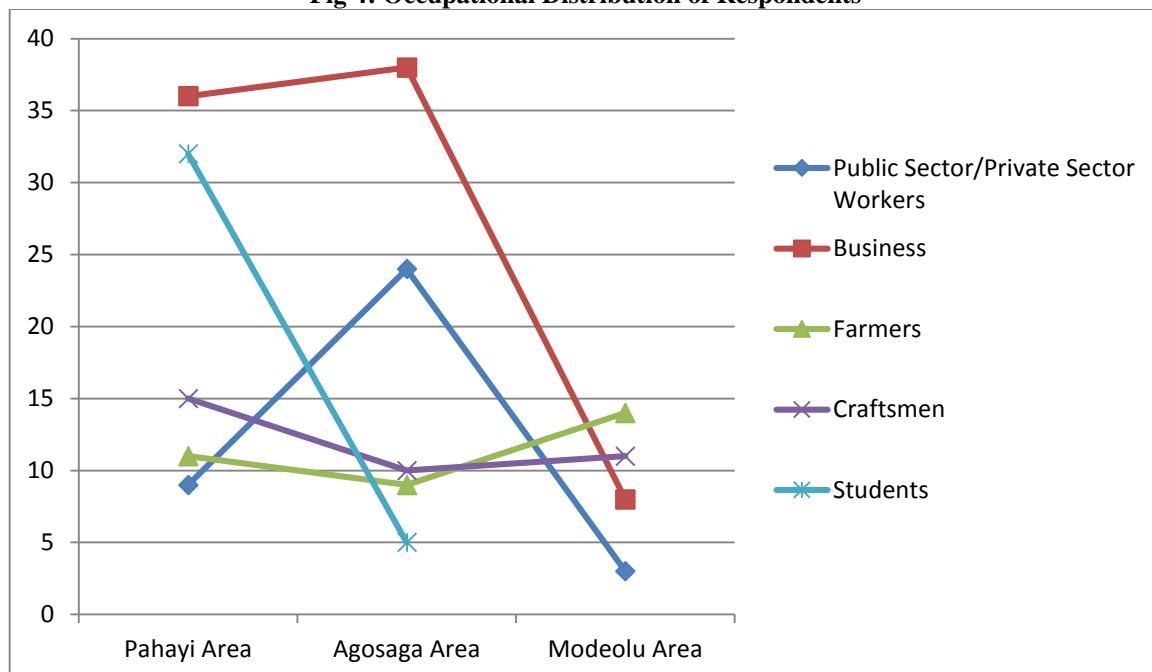
- Average Population per House
- Average Household size
- Average Number of Head of households per building

From the analysis in fig 3, the total population of residents in the sampled houses is 3446 residents. However, a head of household is chosen from each of the sampled buildings for the purpose of questionnaire administration.

Occupational Distribution of Respondents

The importance of occupation as a variable in this research cannot be overemphasized. Mbazor (2018) has established the relationship between the level of education and occupation, and it is on this premise that the occupation is considered as a variable for both level of education and the type of work (occupation) of respondents for this research. However, the connection between occupation and income as determinant variable to income further buttressed the need to consider it in this research.

Fig 4: Occupational Distribution of Respondents



Source: Author's field Survey, March 2025

From fig 4, respondents engaging in business in the Pahayi area are dominant with 36 respondents out of 103 sampled respondents representing 34.9% of the total respondents, while 32 respondents were students, representing 31.1%. One of the probable factors for the high number of respondents' who are in business and studentship in the Pahayi area is due to the proximity to the institution (The Federal Polytechnic Ilaro). A very low number of Public/Private sector workers reside in the Pahayi with 9 residents out of the 103 residents sampled and this represents 8.7%.

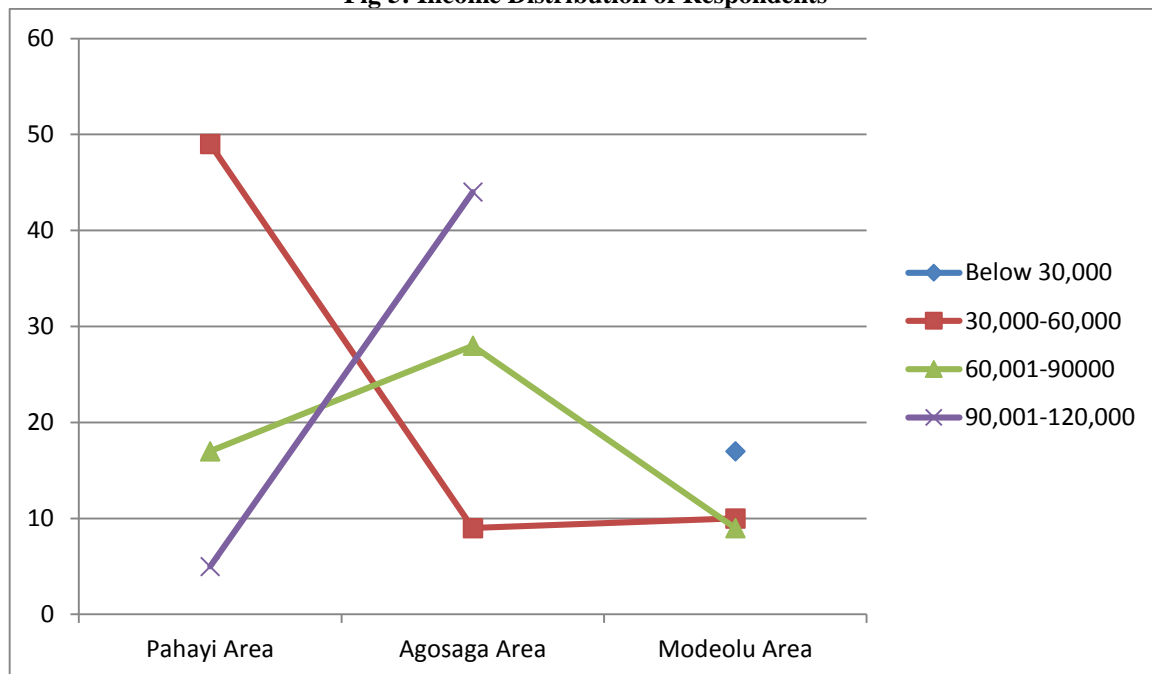
In the Agosaga area, respondents engaging in business have the highest number with 38 respondents, representing 44.2%, followed by respondents who are working under the Public or Private sector with 24 respondents representing 27.9%. A very few number of students reside in this area with 5 students, representing 5.8%. However, the non proximity of the area to the institution is a probable factor for this low number of student residence in the area.

High number of residents who engaged in farming dominates the occupational profile of Modeolu area, with 14 residents engaging in farming, representing 38.9%, and this is followed by residents engaging in craftsmanship with 11 craftsmen, representing 30.6%. The number of Public/Private sector workers is relatively low with 3 respondents, representing 8.3%

Income Distribution of Respondents

Income is an important variable when issue relating to housing maintenance is considered for empirical study. Farinmade et al (2021) has established the relationship between housing quality and income, hence, income of residents in the study area is a major parameter in understanding the overall character displayed in each of the identified cluster understudied. Table 4 shows the income distribution of respondents in the study area.

Fig 5: Income Distribution of Respondents



Source: Author's field Survey, March 2025

Differences in the pattern of income distribution exist among the 3 areas. In Pahayi area, 49 respondents have income levels of N30,000-N60,000, representing 69% of the total number of respondents in the area and having the highest in the area, while in Agosaga area, 44 respondents have income level of N90,001-N120,000. Representing 54.3% of the total number of respondents in the area and having the highest, and in Modeolu area, 17 respondents have income level of below N30, 000 representing 47.2% of the total number of respondents in the area.

Materials Used for Building Construction and the Locations of the Housing Facilities

The materials used for the construction of residential buildings and the location of 3 major housing facilities, namely; the toilet, bathroom and kitchen were considered in this research. In Table 7, the materials for the construction of the 3 components of buildings, namely; the foundation, wall and roof were identified, while in Table 8, the locations of the existing housing facilities were identified.

Table 5: The Materials Used for Building Construction and the Locations of the Housing Facilities

Ward(s)	Building Component(s) (Materials)									
	Foundation			Wall			Roof			
	Clay	Concrete	Σ	Brick	Concrete	Σ	Old Aluminium	New Aluminium	Asbestos	Σ
Ilaro Ward I: Pahayi Area	78	25	103	66	37	103	81	9	13	103
Ilaro Ward II: Agosaga Area	34	52	86	34	52	86	60	9	17	86
Ilaro Ward III: Modeolu Area	29	7	36	27	9	36	33	-	3	36
Total	141	84	225	127	98	225	174	18	33	225

Source: Author's field Survey, March 2025

Table 6: Housing Facilities

Facilities	Pahayi Area			Agosaga Area			Modeolu Area		
	Location	Freq.	%	Location	Freq.	%	Location	Freq.	%
Toilet	Inside	84	81.6	Inside	69	80.2	Outside	36	100
	Outside	19	18.4	Outside	17	19.8			
	Total	103	100	Total	86	100			
Bathroom	Inside	82	79.6	Inside	75	87.2	Outside	36	100
	Outside	21	20.4	Outside	11	12.8			
	Total	103	100	Total	86	100			
Kitchen	Inside	89	86.4	Inside	84	97.7	Inside	23	63.9
	Outside	14	13.6	Outside	2	2.3	Outside	13	36.1
	Total	103	100	Total	86	100	Total	36	100

Source: Author's field Survey, March 2025

Assessment of the Housing Conditions

Data on the assessment of the housing conditions of the sampled buildings within the identified clusters is presented in Table 7

Table 10: Assessment of the Housing Conditions of Sampled Buildings within the Identified Clusters

S/N	Ward	Conditions of Buildings			
1.	Ilaro Ward I: Pahayi Area	Year	Condition	No of Buildings	%
		Less than 10 years	Good	1	
			Fair	3	
			Poor	-	
			Sub-Total	4	
		10 years- 30 years	Good	3	
			Fair	17	
			Poor	5	
			Sub-Total	25	
		Above 31 years	Good	-	
			Fair	31	
			Poor	43	
			Sub-Total	74	
Total		103	100		
2.	Ilaro Ward II: Agosaga Area	Year	Condition	No of Buildings	%
		Less than 10 years	Good	1	
			Fair	2	
			Poor	-	
			Sub-Total	3	
		10 years- 30 years	Good	2	
			Fair	6	
			Poor	5	
			Sub-Total	13	
		Above 31 years	Good	-	
			Fair	21	
			Poor	49	
			Sub-Total	70	
Total		86	100		
3.	Ilaro Ward III: Modeolu Area	Year	Condition	No of Buildings	%
		Less than 10 years	Good	-	-
			Fair	-	-
			Poor	-	-
			Sub-Total	-	
		10 years- 30 years	Good	-	
			Fair	1	50
			Poor	1	50
			Sub-Total	2	
		Above 31 years	Good	-	
			Fair	1	
			Poor	33	
			Sub-Total	34	
Total		36	100		

Source: Author's field Survey, March 2025



Plate 1: An old aged building with poor condition of building at Pahayi Area, Ilaro, Ogun State



Plate 2: A New Aged Building with good condition of building at Pahayi Area, Ilaro Ogun State

Table 11: Analysis of the Ages of Buildings, Conditions of the Buildings and their Ranking Values

Ages of Buildings	No of Buildings	Ranking
Less than 10 years	7	3
10 years- 30 years	116	1
Above 31 years	102	2
Total	225	
Conditions of Buildings		
Good	7	3
Fair	82	2
Poor	136	1
Total	225	

Table 12: Ranked Values (Ages of Buildings and Conditions of Buildings)

Ranked Values (Ages of Buildings)	Ranked Values (Conditions of Buildings)	d	d ²
3	3	0	0
1	2	-1	1
2	1	1	1
			2

$$rs = 1 - \frac{6\epsilon d^2}{n(n^2 - 1)}$$

$$rs = 1 - \frac{6(2)}{3(3^2 - 1)}$$

$$rs = 1 - \frac{12}{24} = 1 - 0.5$$

$$= +0.5$$

From the calculated value, a moderate positive correlation (association) has been established between the ages of residential buildings in the sampled areas and the conditions of residential buildings in the sampled areas. This simply indicates that a moderate positive association exist between ages of residential buildings in the

sampled areas and the conditions of residential buildings in the sampled areas. It means that as one variable of age of building increases, the condition of the building tends to increase as well, but not as consistently as a stronger association of closer to +1.0

IV. Discussion of Findings

The variation in the; housing characteristics and the socio-economic characteristics of the inhabitants of the study area are important factors which have determined the levels of housing deterioration in the study area. It is important to note that this varied factor and its consequences expressed as the levels of deterioration of houses in the study area has planning implications.

This research has considered factors such as; housing tenure, ages of buildings, the socio-economic characteristics of the occupiers of the houses, the household sizes distribution and occupancy ration, material used for building construction, the number and location of housing facilities, and the housing condition. Through the data collected, the houses in the Modeolu area depicts houses of family origin and the area symbolises a significant core area of Ilaro.

However, Agosaga and Pahayi areas is a combination of the old aged areas but the influence of the proximity to The Federal Polytechnic Ilaro to Pahayi area has been significant in both the housing characteristics and the socio-economic attributes of the occupiers of the houses in the area. from this analysis, it is very clear that a spatial variation exist in terms of housing deterioration in the study area with planning implications.

V. Conclusion and Recommendations

Each area within the study area is unique in terms of housing deterioration, but the need for appropriate planning inputs to improve the housing conditions is imperative. These inputs become necessary in order to avoid the occurrence of a blighted area, and ensure that the goals of quality housing are achieved. Hence, an urban renewal is recommended.

The recommended urban renewal should take into cognisance the variations in the housing deterioration through the data collected. Various urban renewal strategies are to be adopted based the housing characteristics of each area. Such strategies include; Spot Clearance, Revitalization, Rehabilitation, and Conservation. It is important to note that the Redevelopment strategy is not recommended owing to the fact that the data collected does not justify the application of this strategy. Public participation in urban renewal is necessary, and this should be considered when initiating and implementing the urban renewal scheme.

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