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## HOUSING POVERTY IN DEVELOPING COUNTRIES: CHALLENGES AND IMPLICATIONS FOR DECENT ACCOMMODATION IN SWEDRU, GHANA

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### ABSTRACT

Adequate supply of housing remains a challenge in developing countries. This article assesses the extent of housing poverty in developing countries and its implication for decent accommodation<sup>1</sup> in Swedru, Ghana. Using a cross-sectional survey design coupled with stratified and systematic sampling techniques, 1,161 household participants were selected. Questionnaires and interviews were used to collect raw data from 496 houses in 16 neighbourhoods in the Swedru Township, Ghana. Findings showed that the vast majority of houses in the Swedru Township share common housing facilities such as bathroom and lavatory. This has compelled some households to resort to bathing in open spaces, while practising free range especially in the morning where households have to queue

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1 Decent home/housing is not about the moral conducts of the households, but rather about the extent to which households feel comfortable as occupants of a house to include adequate space, availability of facilities, and security.

for bathing and using the toilet facility. A room occupancy rate of 5.51 indicates that households are congested and a population of 4,603 accommodated in 496 housing units is evident. It was revealed that the high level of non-decent accommodation in the municipality is attributable to ill-enforcement of building laws that has allowed homeowners to supply housing without lavatories with impunity. Hence, effective implementation of the L.I.1630 was recommended.

Keywords: Decent accommodation, deficit, housing facility, housing supply

## ABSTRAK

Voldoende aanbod van behuising bly 'n uitdaging in ontwikkelende lande. In hierdie artikel word die omvang van behuisingsarmoede in ontwikkelende lande en die implikasies daarvan vir ordentlike akkommodasie in Swedru, Ghana, beoordeel. Met behulp van 'n deursnee-opname-ontwerp tesame met gestratifiseerde en sistematiese monsternemingstegnieke, is 1 161 huishoudelike deelnemers gekies. Vraelyste en onderhoude is gebruik om rou-data van 496 huise in 16 woonbuurte in die Swedru Township, Ghana, te versamel. Bevindinge het getoon dat die oorgrote meerderheid huise in die Swedru Township gemeenskaplike huisvestingsgeriewe soos badkamer en toilet deel. Dit het sommige huishoudings genoop om te gaan bad in oop ruimtes, terwyl huishoudings moet wag om te bad en die toiletgeriewe te gebruik. 'n Kamerbesettingskoers van 5,51 dui aan dat huishoudings oorvol is en dat daar 'n bevolking van 4603 in 496 wooneenhede is. Daar is aan die lig gebring dat die hoë vlak van nie-ordentlike akkommodasie in die munisipaliteit te wyte is aan die swak handhawing van die bouwette wat huiseienaars toegelaat het om straffeloos behuising sonder toilette te voorsien. Daarom word 'n effektiewe implementering van die L.I.1630 aanbeveel.

Slutelwoorde: Behuisingsaanbod, behuisingsfasiliteit, ordentlike akkommodasie, tekort

## 1. INTRODUCTION

Housing has become a growing concern across the globe and, with the growing number of the urban poor, particularly in Africa, the situation has worsened to unprecedented levels and it seems that the trend is persisting (Chirisa & Matamanda, 2016: 41). Aribigbola (2011: 26) reiterated that housing is crucial to the welfare, survival, and health of individuals. Erguden (2001: 5) opined that housing, apart from being a treasured asset, has much broader economic, social, cultural, and personal connotations.

In accordance with UN-Habitat (2003: 31), although Africa is the least urbanised, it remains the continent urbanising the most, leading to a great challenge of providing decent housing for its urban population. A study by Kempe (1998: 4) reveals that, by 2025, Africa would have an average urban population growth of 3.05%, with West Africa alone estimated to have an average annual population growth of 3.16% (see Table 1).

Table 1: Average percentage annual growth rate of urban population in Africa by region, 1990-2025

Region	Year range						
	1990-1995	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025
Africa	4.94	4.72	4.48	4.21	3.85	3.43	3.05
East Africa	6.41	5.94	5.44	5.12	4.72	4.24	3.74
Middle Africa	5.07	4.98	4.83	4.56	4.21	3.75	3.24
Northern Africa	3.92	3.66	3.40	3.08	2.71	2.36	2.18
Southern Africa	3.49	3.29	3.04	2.79	2.53	2.26	1.97
West Africa	5.32	5.15	4.90	4.59	4.12	3.62	3.16

Source: Adapted from UN, World Urbanization Prospects, 2012: 154-155

Unrestrained urban growth makes it difficult for cities to offer residents social facilities such as decent accommodation units for households, despite the recent urban partiality with respect to development disbursements and strategies (Rondinelli & Kasarda, 1993: 17). With the growing density of people in urban areas, land becomes scarce and very expensive where the demand for housing is increasing, making it a challenge for the poor to access decent housing (Jenkins & Scott, 2007: 12). Owing to the scarcity of land and the rising cost of housing, there is a paucity of affordable housing in Africa (Bashir, Julius & Rainer, 2017: 1).

Rapid urbanisation has led to overcrowding in most of the African countries and the rising urban population is not able, in most instances, to access decent housing, thus leading to slums and informal settlements that often do not meet formal benchmarks. According to UN-Habitat (2008: 13), at least 860 million people were living in slums in 2013, an increase of 725 million since the year 2000. The situation in Ghana is no different. According to the GSS (2005c: 24), the urban population has experienced a steady increase of 23.1% in 1960 and 43.8% in 2000. This situation has led to high levels of unsafe homes. Houses constructed in an open space without a lavatory, water, light and sometimes a bathroom are common in most of the rural areas in Ghana (Habitat for Humanity, 2009: 2).

Despite these conditions, the shortage of housing in urban areas has compelled many people to congest in small rooms in houses, where there are no acceptable housing facilities. These houses are mostly overcrowded and a room, which is meant to accommodate at most 3 persons, in accordance with the UN-Habitat (2016: 12) standard, is used by at least 6 persons. Tenants have to queue in the morning and in the evening to have access to a single bathroom or lavatory. This condition is referred to as housing poverty in the context of this article.

This article investigates the extent of housing poverty conditions in the Swedru Township, a conurbation of Accra, the capital city of Ghana, which provides accommodation for the overflow population of Accra and its nearby metropolis. Although some studies (Anisah, 2014: 1; Wuni, Boafo, Yeboah & Dinye, 2018: 2; Obeng-Odoom, 2014: 357) have been conducted on the extent of housing shortage in Ghana's urban cities, none focused on Swedru Township. Other similar studies (Boamah, 2010: 1; Appeaning, 2014; Gillespie, 2018: 64) did not consider how decent or non-decent households are being accommodated, as far as the provision of housing is concerned, in terms of room occupancy rate and housing facility per person. This article investigates the state of housing conditions relative to overcrowding and the availability of in-house facilities, and examines how decent households are accommodated in the Swedru municipality, as measured against the SDG11 and the UN-Habitat's housing standards.

## 2. LITERATURE REVIEW

### 2.1 Urbanisation and the extent of decent housing in developing nations

Africa is swiftly urbanising and will lead the world's urban growth in the coming decades (World Bank, 2015: 11). Presently, Africa is the least-urbanised continent, with 11.3% of the world's urban population. The sub-Saharan region is the continent's least-urbanised area. The region's cities are growing rapidly, and Africa's urban population is projected to reach 1.2 billion by 2050, with an urbanisation rate of 58% (UN-Habitat, 2014a: 23). With this growth rate, Africa will overtake Asia as the world's most rapidly urbanising region by 2025 (UN, 2014: 6). Although the nature and pace of urbanisation varies among countries, Africa, with over a quarter of the world's fastest growing cities, is undergoing a massive urban transition. The urbanisation progression in Africa is linked to an increasing demand for affordable housing and other subsidiary urban services, which most of the countries fail to provide (UN-Habitat, 2012: 5; Mugumbate, Maushe & Nyoni, 2013: 25a). As such, both academics and experts have acknowledged the need to reduce the rate of housing scarcity and poverty in developing cities (Riley, Fiori & Ramirez, 2001: 521-531; Sivam & Kuruppannan, 2002: 71). The key test for African cities, however, has been the moderately low growth in per-capita income, which limits the resources that households invest in housing. Recent studies have found that, in Africa, investment in formal housing (based on national current accounts data) lags behind urbanisation (Arvanitis, 2013: 2). Furthermore, the capital investment in infrastructure needed to handle rapid urbanisation typically happens after housing has already been built, often in informal settlements.

Relatively, Jelili (2012: 9) observes that sub-Saharan Africa now has the third highest total number of slum dwellers of all the regions of the developing world (after Southern Asia and Eastern Asia). According to Giddings (2007: 5), if this tendency continues, the slum population is expected to reach 400 million by 2020 in most of the sub-Saharan African countries, specifically Angola, Ethiopia, Mali, Sudan, and Tanzania. Unlike the other African regions, where slums are on the increase, northern Africa is experiencing negative slum development.

In terms of urbanisation, some African governments tend to play a proactive role in urban planning. This has resulted in a proliferation of slums in the vast majority of African cities where the poor reside. This has resulted in a situation where rental accommodation has been acknowledged as an alternative method to address the housing predicament in sub-Saharan countries, specifically Ghana (Ofori, 2019: 169). Generally, decent housing and accommodation is inadequately provided across the cities in Ghana. Several studies (Boamah, 2010: 4; Osumanu, Kosoe & Frederick, 2016: 12) reveal that the average occupancy per room is above 3, coupled with ill-quality housing as standardised by UN-habitat.

According to Chirisa & Matamanda (2016: 4), decent housing must be characterised by adequate living areas within the dwelling, access to improved water and sanitation, and security of tenure. A dwelling apartment should be located in a non-hazardous location and have the capability to effectively protect the occupants from adverse climatic conditions. The occupancy ratio in decent housing should be 3 or less persons per room. However, this article focuses on occupancy per room, access to sanitation and hygiene, in terms of access to facilities such as lavatory and bathroom as indicators for decent accommodation in the Swedru municipality of Ghana.

## 2.2 Causes of housing poverty (non-decent accommodation) among the urban communities of Ghana

### 2.2.1 High cost of land and substandard land tenure system

Land is a basic resource to every country's economic and social growth, since it is considered an economic good more than simply a social good (Barlowe, Adelaja & Babladelis, 2013: 8). A few years ago, a small amount of money (peppercorn rent) was paid as allegiance to hold the land for economic or social activities (Ariffian, Afrane, Hassan & Iddrisu, 2016: 138). At present, in urban property markets, uncertainty over the ownership of land, bureaucracy in the endorsements and the issue of titles, land racketeering, lack of compliance with planning requirements, tardy

provision of infrastructure and other services, ill-disciplined land agents, and corruption in all aspects of the industry have led to distortions and inefficiencies in urban land markets (CDD, 2000: 14, cited in Ariffian *et al.*, 2016: 141). The repercussion of this situation is that the cost of land to the purchasers is much higher than it should be. This notwithstanding, the traditional land administration system has been blamed for the ineffective land tenure system in Ghana, where ownership of land takes different forms, each with specific legal rights and incidents attached thereto (Appiah, 2007: 15).

### 2.2.2 Rural-urban migrations

Rural-urban drift has been one of the major contributing factors in making housing a challenge in the urban centre of Ghana. The search for greener pastures in the cities encouraged rural communities to join their families in the cities, placing the burden on urban housing (Business World Ghana, 2012: 26). Therefore, provision of housing has scarcely moved in tandem with demand, leading to pockets of slums and communities that seem to consist entirely of kiosks, containers and little by way of plumbing or drainage. For instance, in 2005, due to an acute shortage of housing and poor housing conditions, sub-Saharan Africa had 199 million slum dwellers, constituting 20% of the world's total slum population (Sean, 2014: 191). However, in the same year, Ghana had 5.4 million slum dwellers and is anticipated to reach 7.1 million by 2020. The worst hit cities are Accra, Kumasi and Sekondi-Takoradi (UN-Habitat, 2006). Swedru is a conurbation of Accra and the situation is not different.

### 2.2.3 Inadequate mortgage financing institution

Mortgage financing has become an increasing challenge in the commercial real-estate market in most of the developing countries, including Ghana (Buckley, 1989: 3; Tomlinson, 2007: 2). In the developed countries, the mortgage industry has proved to be the most proficient and largest financier of the housing needs of the population (Bank of Ghana, 2007: 9). Access to decent, affordable homes is a big challenge for a large part of the Ghanaian population, because the economy is narrowed by fewer savings and borrowing, and there is a trade-off between financing housing and the supply of other infrastructure (Okonkwo, 1998: 8). Moreover, the problem with housing finance among the banks in Ghana is that most of them are portfolio lenders and banks run a low-cost and low-risk business, where mortgage lending fits well in relation to other investment activities (Noah, 2002: 13).

## 2.2.4 Persistent change of government

Supply of housing is a long-term plan, mostly between five and fifteen years, and such plan needs a formidable policymaker to implement what has been put on paper. However, in Ghana, the persistent change of government has led to the breakdown of continuity of housing projects. This has also contributed to inadequate infrastructure and provision of utility services (Ariffian *et al.*, 2016: 144). For instance, in seeking to boost the housing supply, the Government of Ghana, in 2005, pursued various programmes such as the affordable housing programme to build over 100,000 units of housing through Private Public Partnerships (PPP) across the country (Bank of Ghana, 2007: 15). However, in 2009, after a change of government, all the projects were abandoned and left to squatters, with no intention to complete them. This housing project, when completed, could have accommodated hundreds of families (Ghana web, 2012: 3).

## 2.2.5 High cost of building materials

The provision of infrastructure and affordable housing for the citizens is constrained by the high cost of building materials (Danso & Manu, 2013: 14). Building materials account for 50% of the total cost of construction in Ghana (Asibuo, 1994: 13). In addition, the high cost of building materials in Ghana is attributed to the over-dependence on imported raw materials for buildings, for which local substitutes could be used if the necessary supports are given to the manufacturers (Yeboah, 2005: 10).

## 2.2.6 Rapid population growth and urbanisation

During 2000-2020, Ghana experienced a rapid population growth, coupled with sprouting urbanisation (Plecher, 2020: 1). It is projected that Ghana's urban population will be roughly 52% of the national total growth by 2050 and central to this rapid urban growth are housing shortages and poor sanitation (UN-Habitat, 2006: 12). Despite the increase in population growth and urbanisation, the increase in housing is slow, urban infrastructure scarce, social amenities and shelter conditions degraded, particularly in the Accra and Tema Metropolis, making adequate housing a big concern for the Ghana government at present (Modern Ghana, 2010: 4).

## 2.3 The extent of housing deficit

According to the World Bank (2002: 14), nearly 175,000 dwellings were supposed to be built in Algeria between 2002 and 2012 to alleviate the housing deficit in the country. The annual prerequisite for new dwellings in Ethiopia is projected to be between 73,000 and 151,000 housing units (UN-Habitat, 2006: 12). In the Greater Cairo Region (GCR), it is speculated

that over two million housing units need to be built between 2010-2020 to meet the emergent urban population (UN-Habitat, 2010: 3). The situation is not different in Uganda. According to the National Population Council Secretariat (NPC Sec) of Uganda (2007: 10), the estimated 1.5 million housing bottleneck, 211,000 units, was in the urban areas, while the remainder was in the rural areas, resulting in non-decent housing accommodation in the township. The urban housing deficit in Zimbabwe rose from 670,000 to over 1 million between 1992 and 1999. The situation was aggravated by the mass expulsions and clearance of informal housing in 2005, resulting in an additional 92,460 buildings (Tibajuka, 2005: 6). For the purpose of this article, housing units are separate living quarters, where the occupants live separately from other residents of the structure (Chen, 2020: online).

In spite of this annual increase in housing deficit across Africa, housing finance markets are discouraging, as the vast majority of governments do not invest a great deal in housing. The problem of delays in the housing construction sector is a major phenomenon in Ghana as in other emerging countries (Amoatey, Ameyaw, Adaku & Famiyeh, 2015: 198), with the exception of Morocco, Namibia, and South Africa (CAHF, 2018: 5). This situation is increasing with the result that many dwellers live under non-decent housing facilities, most of which are slums. Boamah (2010: 4) reveals that Ghana is challenged by a severe housing deficit, as only 25,000 units are supplied yearly and the annual demand is 108,000. According to Mahama and Antwi (2006: 3), the deficit in housing units in Ghana is 1,526,275. In 2000, the deficit in housing units in Kumasi was 164,219 (GSS, 2005d: 22) and in Tamale 18,690 (GSS, 2005c: 27). At least 52% of the houses in Ghana accommodate between two and four households (GSS, 2012b: 19).

According to the Ghana National Development Plan (GNDP, 2008: 4), the deficit of 2 million housing units is a major socio-economic challenge confronting Ghana presently (Daily Graphic online, 2014: 1; Ariffian *et al.*, 2016: 139). Meeting the deficit implies providing 190,000 to 200,000 housing units annually for 10 years at a cost of US\$3.4 billion (17.7 billion GH¢). This situation undermines Sustainable Development Goal 11. The major question is: To what extent has an increase in housing deficit in Ghana influenced non-decent accommodation in the urban cities? This study, therefore, explores the nature of housing accommodation and the characteristics of facilities within homes in terms of the L.I.1630 (CAHF, 1996: 4) and SDG11.

### 3. STUDY AREA

The study was conducted in Swedru, in the Central Region of Ghana. Swedru is the municipal capital of Agona West Municipal District, in the Central Region of South Ghana, with a population of roughly 68,216 (GSS, 2019: 1). It lies to the north of Winneba and is approximately 40 km off the main Accra-Takoradi Highway. It lies within latitudes 5 30' and 5 50N and longitudes 0 3.5 and 0 55W. It is bounded to the east and west by Effutu Municipal and Asikum/Odoben/Brakwa Districts respectively; to the northeast with West Akim; to the northwest with Birim Central, and to the South with Gomoa Central District (Figure 1).

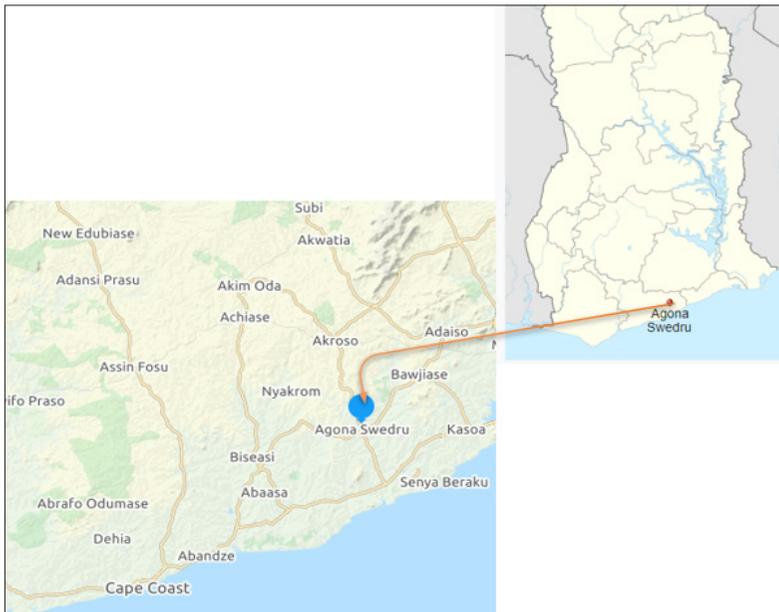


Figure 1: Map of Swedru, Ghana  
Source: Maplandia, 2016: online

The township has 14,201 houses, with 53,964 households and accommodates 3.8 households on average per house (WPR, 2020: 1). Nearly seven out of ten (67.4%) of all housing in the municipality are compound houses; 19.3% are separate houses, and 4.2% are semi-detached houses (GSS, 2019: 1). Nearly half (43.4%) of the housing units in the municipality are owned by members of the household; 28.9% are privately owned; 24.7% are owned by relatives who are not members of the household, and only 1.4% are owned by the government. However, less

than one per cent (0.6%) (GSS, 2019: 1; GSS, 2014: 13) of the housing units is owned through mortgage schemes.

### 3.1 Rationale for selecting study area

Ghana does not have any database at present that shows the number of housing units available in the country. In most of the major cities, no data are available on the number of housing units supplied within a year, showing the acceptable in-house facilities. The situation in Swedru is not exceptional. The selection of Swedru Township for the study was informed by the fact that it is one of the conurbations to the capital city of Ghana, Accra, and receives the overflow population of Accra. The reason being that most of the people who move from the various towns in Ghana in search of greener pastures in Accra get employment in Swedru, making the city overburdened with rural urban drift and its accompanied housing complexities.

Apart from the fact that it is one of the growing urbanised cities in Ghana, Swedru is sandwiched between three major cities (Accra, Winneba, and Cape Coast), where most of the people live and work in Accra. In spite of the fact that the housing situation in the town lacks academic recognition, particularly how the housing conditions meet the acceptable housing standards as defined by (UN-Habitat, 2014b: 4; UN-Habitat, 2007: 16) and the SDG11, a preliminary survey of the town shows that few households have in-house facilities such as lavatory and bathroom.

## 4. METHODOLOGY

### 4.1 Research design

This study examines the extent of non-decent housing in the Swedru municipality of Ghana and investigates the adequacy level of housing facilities supplied in the various houses across the municipality in terms of their availability and usage per household. This study uses a mixed methods approach, where both quantitative and qualitative data are collected simultaneously, analysed separately, and thereafter merged (Creswell & Plano-Clark, 2018: 8; Grbich, 2013: 27; Isah, Shakantu & Ibrahim 2020: 8). A quantitative semi-structured questionnaire survey was used to collect data from household respondents to enable the researchers to generalise their findings from a sample of a population (Bryman, 2012: 232).

Semi-structured face-to-face interviews were held to solicit qualitative information from some key informants on issues relating to the state of housing in the various residential areas (Isah *et al.*, 2020: 8). Data from the Ghana Statistical Service (GSS), Housing Policies of Ghana and Ghana

Living Standard Survey (GLSS) provided secondary information on issues relating to Ghana's current housing stock and housing deficit.

The reason for collecting both quantitative and qualitative data is to elaborate on specific findings from the breakdown of the interviews and government documents, and to cross-check this data against the questionnaire data set such as similarities in factors that influence non-decent accommodation in the Swedru municipality (Creswell & Plano-Clark, 2018: 27).

## 4.2 Population, sampling, and response rate

Using the housing stock of 14,201 and an estimated household population of 53,964 (WPR, 2020: 2) in approximately 48 observed neighbourhoods, the study employed purposive, stratified and systematic sampling techniques to select 496 houses and 893 households from 16 neighbourhoods (see Table 2). It must be acknowledged that 893 households were selected for the study, because, each house had more than one household. The purposive sampling technique was used to particularly select the houses based on types and specific characteristics (Rai & Thapa, 2015: 6), as explained in the subsequent paragraphs.

Owing to the heterogeneity of the housing types, the study employed maximum variation sampling, also known as heterogeneous sampling, as a purposive sampling technique to capture a wide range of perspectives relating to decent accommodation and housing poverty (Rai & Thapa, 2015: 6). In addition, due to the larger size of the community and, in order to fully replicate the selected neighbourhoods in the study area, stratified sampling was used to categorise the entire study area into units called stratum. Each stratum was treated separately, and participating households were drawn from each zone or stratum (Kusi, 2012: 61).

With the aid of quadrant stratification, the 16 neighbourhoods were categorised into four zones within the North-East, North-West, South-East, and South-West quadrants category, with four communities purposively selected based on their housing characteristics (inbuilt lavatory and bath, block or brick, types of roofing, location to the city centre, and age) of the neighbourhood under each zone (see Table 2). Out of the 893 households, the study selected two participants systematically from each household in each neighbourhood. A total of 1,786 participants were sampled to complete the questionnaires, with two key informants selected from within for face-to-face interviews.

The sampling for this study follows the recommended sample size table of Krejcie and Morgan (1970: 608). From the table, the recommended sample size for a population of 3,000 is 314, and for 3,500, 361. This recommendation validates the sample size of 1,786 as efficient for the

population of 4,603 in Table 2. The trained questionnaire administration team retrieved 1,161 completed questionnaires, resulting in a 65.0% response rate. This response rate is good to support this empirical study, as built-environment survey response rates vary between 7% and 40%, in a broader perspective (see Moyo & Crafford, 2010: 68).

Table 2: Population, sample, and response rate

Zones	Quadrant	Neighbourhood	Houses	Occupancy population	Sample	Response	Response rate (%)
A	South-West	Mangoase	19	67	64		
	South-West	Pipetank	38	93	89		
	South-West	Dwenwoho	22	72	68		
	North-West	Yaabam	17	56	53		
Total			96	288	274	241	87.9
B	North-East	Botwe Estate	51	328	186		
	North-East	Manhodze	21	119	79		
	North-East	Tezako	19	97	72		
	South-East	Bypass	23	146	87		
Total			114	690	424	280	66.0
C	South-East	Odakwam	36	369	121		
	South-East	Ahmadya	28	297	173		
	South-East	Nine-Nine	44	428	124		
	North-West	Mandela	25	236	116		
Total			133	1330	534	294	55.1
D	North-East	Anwhease	31	493	114		
	North-East	Chapel Square	23	397	98		
	North-East	Asesim	47	691	124		
	South-West	Nsusoaso	52	714	218		
Total			153	2295	554	346	62.5
Overall			496	4603	1786	1161	65.0

### 4.3 Data collection

A breakdown of documents from the Ghana Statistical Service (GSS), Ghana Living Standard Survey (GLSS) and Housing Policies of Ghana were examined to determine the number of housing units that are supplied annually in each of the neighbourhoods, in order to measure housing poverty relative to housing supply. However, these documents had no data on the annual supply of housing in the entire Swedru municipality.

The semi-structured interview guide contains only one major question: “Do you have any knowledge on decent accommodation? This question was asked to determine the perceptual views of the participants on what decent housing means.

Using the structured questionnaire, data was collected from 1,161 available household respondents in the Swedru municipality of Ghana from December 2019 to the end of March 2020. The questionnaire consisted of five sections. The first section, on the respondents’ demographic profile, obtained personal information on age and occupation. The second section set 20 tick-box options to measure the housing conditions in the Swedru municipality relative to housing supply in each of the various neighbourhoods in the selected study areas (where households were asked to tell how many new houses have been built or completed in their vicinity from the start of the year to date), household access to sanitary facilities and overcrowding. Section three and four contained 8 tick-box options, each to determine the types of housing in the Swedru municipality and the income status and extent of housing tenancy among households. Section five set one Likert-scale question with 13 items on the construct ‘factors influencing non-decent accommodation’. Participants were requested to rate the level of influence on the statements regarding factors that influence non-decent accommodation.

The results from these measurements form the items used in the descriptive analysis, factor analysis, and inferential statistics (Naoum, 2013: 39). To reduce the respondents’ bias, closed-ended questions were preferred for sections two to five (Akintoye & Main, 2007: 601).

#### 4.4 Data analysis techniques and interpretation of the findings

The Statistical Package for the Social Sciences (SPSS), version 20 was used to analyse housing poverty, by means of descriptive and inferential statistics (Pallant, 2013: 134). The frequencies and/or percentages of responses were generated and reported, in order to analyse the number of housing units that are supplied annually, the respondents’ profile, their perceptual views on decent housing, the types and non-decent housing conditions in the Swedru municipality, the income status, and the extent of housing tenancy in households.

A Pearson’s correlation test with  $p=0.05$  was employed to find any significant relationship between household income and housing ownership (Fenton & Neil, 2019: 18). SPSS was also used to determine the factor analysability of non-decent accommodation in the Swedru municipality, using inferential statistics (Pallant, 2013: 134). Thirteen factors were

tested and, for the accurate selection of these factors, all were measured by ranking them, in terms of their mean scores, on the following scale measurement, where 1 = Not at all influential ( $\geq 1.00$  and  $\leq 1.49$ ); 2 = Slightly influential ( $\geq 1.50$  and  $\leq 1.92$ ); 3 = Moderately influential ( $\geq 1.93$  and  $\leq 2.11$ ), and 4 = Most influential ( $\geq 2.12$  and  $\leq 2.33$ ). For the analysis of the internal reliability in the factors of the questions on non-decent accommodation, Cronbach's *alpha* values were tested (Kolbehkori & Sobhiyah, 2014: 347). Yount (2006: 15) argued that the standardised values of Cronbach's *alpha* would range between 0.70 and 0.95. For this study, a cut-off value of 0.80 was assumed. In addition, the optimal inter-item correlations mean (factor loadings) should vary between 0.2 and 0.4, in terms of factor reliability. For this study, a value of at least 0.3 was employed (Pallant, 2013: 134).

To confirm whether the data from the measurements was sufficient to test and validate the factor analysis, the Meyer-Olkin (KMO) test (Lorenzo-Seva, Timmerman & Kiers, 2011) and the Bartlett's sphericity test (Hair, Black, Babin, Andersen & Taham, 2006: 110) were used. In the KMO test, as the values of the test vary between 0 and 1, values above 0.7 are required for applying EFA (Hair *et al.*, 2006). A statistically significant Bartlett test ( $p < 0.05$ ) indicates that sufficient correlations exist between the variables to continue with the analysis (Hair *et al.*, 2006: 110; Pallant, 2013: 190). For factor extraction, Principal Components Analysis (PCA) was adopted to analyse the information into a minimum number of factors, by concentrating the explanatory power on the first factor (find the principal components of data) (Rossoni, Engelbert & Bellegard, 2016: 102).

#### 4.5 Limitations

The housing conditions in terms of housing space, availability of facilities, usage of facilities per person, room occupancy rate, and average household per room in the Swedru Township show some similarities when compared to housing conditions in the vast majority of urban areas in Ghana. However, these may differ in nature as the household's educational and affluence level changes with time. As a result, the conclusions drawn in this study could differ, if similar statistical analyses are done of multiple household characteristics and of the people's perceptual views on what decent housing is in another urban city in Ghana. The availability of housing database in the various statistical services at both the district and municipal levels of the study area (Swedru) limited the flow of information needed for the study.

## 5. RESULTS AND DISCUSSION

### 5.1 Participants' profile

Table 3 shows the participants' age and occupation profile. In all the zones, the vast majority of the participants (279) were aged 26-33 years, of which Zone D had the highest number (89) of household participants who fall within the age range 26-33 years and have the largest number (55) of student occupants. The number of 65+ in the municipality were very limited (74). Zone C recorded the highest number of 65+, namely 23. The Swedru Township shows ageing characteristics similar to developing or emerging cities with a growing population, where the number of youth or active population is always higher than that of the elderly.

The vast majority (64.1%) of the household respondents rent houses (paying rent for the spaces) and the remainder are owner occupiers (without rent payment). Table 3 shows that, in all the zones, the number of people who rent was more than that of owner occupiers. This study considers such situation critical to curbing the housing deficit in the Swedru municipality. An analysis of the respondents' occupations confirms the study by GSS (2015: 13) that approximately seven out of every ten non-farm enterprises (69.4%) are found in urban areas.

Of the non-farm enterprises, 40.4% are drivers (22.4%) or traders (18%), considering the economic base of the township. This indicates how urbanised and active the Swedru municipality is, as it is located closer to Winneba and Accra, the capital city of Ghana, all of which are trading zones.

### 5.2 Participants' perceptual views on decent housing

Table 4 shows the results of the respondents' perceptual views on whether the people in the Swedru municipality know what decent accommodation is.

Table 4: View on decent accommodation

<i>Question to respondents</i>	<i>Category</i>	<i>Frequency (N = 1161)</i>	<i>%</i>
Do you have any knowledge of what decent accommodation is?	Yes	89	7.7
	No	1072	92.3

The vast majority (92.3%) of the participants do not know what decent accommodation entails and do not support the recommendations of the SDG11 goals (Malcolm, 2018: online). This threatens housing development based on the fact that the knowledge on decent accommodation will help houseowners develop housing in a manner that is tenable in terms of the provision of essential facilities that ensure comfortable living in a house. A key informant and a resident in one of the selected neighbourhoods stated:

Table 3: Age and occupation of participants

Characteristic	Category	Zone A		Zone B		Zone C		Zone D		Total	
		Frequency (N=241)	%	Frequency (N=280)	%	Frequency (N=294)	%	Frequency (N=346)	%	Frequency (N=1161)	%
Age	18-25	34	14.1	36	12.9	44	15.0	44	12.7	158	13.6
	26-33	66	27.4	71	25.4	53	18.0	89	25.7	279	24.0
	34-41	44	18.3	50	17.9	46	15.6	73	21.0	213	18.3
	42-49	29	12.0	38	13.6	49	16.7	49	14.1	165	14.2
	50-57	26	10.8	33	11.8	41	13.9	41	11.8	141	12.1
	58-65	25	10.8	32	11.4	38	12.9	36	10.4	131	11.2
Occupation	65+	16	14.1	20	7.1	23	7.8	15	4.3	74	6.3
	Teaching	27	11.2	31	11.1	36	12.2	42	12.1	136	11.7
	Driving	50	20.7	48	17.1	60	20.4	103	29.7	261	22.4
	Farming	59	24.5	56	20.0	73	24.8	86	24.8	273	23.5
	Trading	60	24.9	68	24.3	56	19.0	25	7.2	209	18.0
	Student	28	11.6	47	16.8	43	14.6	55	15.6	173	14.9
Resident type	Public Servant	17	11.2	30	10.7	26	8.8	36	10.4	109	9.3
	Owner/occupied	82	34.0	98	35.0	108	36.7	129	37.3	417	35.9
	Tenant	159	65.9	182	65.0	186	63.3	217	62.7	744	64.1

“Our aim is to get somewhere to lodge especially to escape from heavy rains and high sunshine and we have the belief that if you wish to have a comfortable room to stay in then you have to build your own house and decorate it the way you like.”

A 48-year-old landlord reiterated:

“My brother, I am aware that when you provide in-house bathhouse and lavatory it makes living very convenient but most of the tenants do not keep them neat and if you are not careful sometimes the stench from them may drive you away from your own house and that is why I decided not to add lavatory to the rented apartments.”

## 5.3 Housing conditions in the Swedru municipality

### 5.3.1 Measuring sanitary facilities

There are a number of measures and indicators of non-decent accommodation (see Chirisa & Matamanda 2016: 12), but, in the context of this article, it is restricted to inadequate amenities (access to bathroom and lavatory in terms of the number available and how many people use them) and overcrowding (in terms of the number of persons per room). According to UN-Habitat, the standard is one facility for three persons. Table 5 shows the extent of the sanitary facilities in the housing units in the Swedru municipality.

Table 5: Sanitary facilities in the Swedru municipality

<i>Sanitation</i>	<i>Category</i>	<i>Frequency (N = 496)</i>	<i>%</i>
Available bathing facilities	Open space everywhere in the house	30	6.0
	Common bathroom in house	213	42.9
	Open partition attached to house	45	9.1
	Private bathroom for household	104	21.0
	Sharing bathroom with another house	59	11.9
	Individual bathroom attached to bedrooms	45	9.1
Types of lavatory services used by households	WC (in house)	27	5.4
	Common lavatory in homes	183	36.9
	Public toilet outside homes	33	6.7
	Pit latrine in house	130	26.2
	Free range on refuse dump sites	47	9.5
	Free range on any open space	31	6.3
	Public toilet with WC	19	3.8
	Households sharing lavatory with public schools	16	3.2
	Individual WC attached to bedrooms	10	2.0

Although 9.1% of the housing units have bathrooms attached to their bedrooms, 42.9% share one bathroom, and 11.9% share a bathroom with another house, causing a very uncomfortable situation. While 9.1% of the housing units use an open partition attached to the house as a bathing facility, 6% are without bathing facilities and households depend on open space everywhere in the compound when the need arises. The practical implication is that, if the average occupancy per household is 9.30 (see Table 6) and 213 houses have 213 bathrooms, then a single bathroom is used by at least nine persons and 30 housing units, without bathrooms having at least 279 persons bathing in open space. Nine persons using one bathroom poses a health risk to tenants in circumstances where physical distances are required to curb contagious, airborne and infectious diseases such as the coronavirus (COVID19). Two hundred and seventy-nine persons bathing in open space expose tenants to various degrees of insecurity and women and children to all forms of attack, including verbal assault and rape (Boamah, 2010: 5). This compromises the standards of decent accommodation proposed by Chirisa & Matamanda (2016: 31).

Table 5 also shows that 496 housing units use nine different types of lavatory services. Although the vast majority (36.9%) of housing units share one lavatory per household and 26.2% use pit latrines in their houses, 15.8% use free range as a lavatory facility. Free range, in the context of this article, is an indiscriminate means of defecating, where a person enters any bush nearby or any refuse dumpsite and defecates. Only 3.2% of the housing units share lavatory services with public schools, while 3.8% use public toilets with WC. Only 2% of the housing units have WC lavatories attached to their bedrooms.

Policy wise, the L.I.16030 (Tasantab, 2016: 152) compels every housing unit to have at least one lavatory facility that is spacious enough to accommodate all household members. The implication is that inadequate supply of housing compels people to live in any building and disregard the non-decent nature of the accommodation.

### 5.3.2 Measuring overcrowding

Table 6 indicates that the average number of housing units is 124 per zone in the Swedru municipality, accommodating 223.25 households. The results confirm the study by Smith-Asante (2018: 2) that Ghana has a housing glut of 130 to 140 housing units supplied every year for a decade. Comparatively, however, it shows a minimum average of 2 rooms (Zone A) and a maximum average of 5 rooms (Zone D) in each house in each neighbourhood in the Swedru municipality.

Table 6: Housing and household dynamics in Swedru municipality

Dynamic	Category	Zone A	Zone B	Zone C	Zone D	Total
Houses	Units	96	114	133	153	496
	Mean unit per zone					124
	Number of rooms in house units	192	345	532	765	1834
	Average room per house unit	2	3.03	4	5	3.70
Households	Size	182	216	224	271	893
	Mean number of households per zone					223.25
	Number of rooms in households	173	135	162	96	566
	Average room per household	1.05	1.60	1.38	2.82	1.57
	Average household size per unit	1.50	2	2.50	3	2.51
Occupancy	Per unit	288	690	1330	2295	4603
	Average occupancy per house	3	6.05	10	15	$4603/496=9.30$
	Mean occupancy per household	1.58	3.19	5.94	8.47	$4603/893=5.20$

The average household size of 2.51 implies that there are at least 2 households accommodated in one unit, with at least five people occupying one room. The overcrowded rooms do not meet the standard of two people per room, as stated by the L.I.1630 (CAHF, 1996: 4). The findings on average household size per unit (2.51) with 9.30 persons per house partially contradicts Boamah’s study (2010: 10) that the average household size per house is 3.5 with 20.3 persons in every house in Kumasi neighbourhoods.

## 5.4 Types of housing in the Swedru Township

Table 7 shows eight different types of housing units in the selected study areas within the Swedru Township. Although 22.7% of the participants live in duplexes, the vast majority (33.2%) of them live in compound houses. In this article, a compound house is a house with at least two households sharing a bathroom and lavatory together. More than three persons using a single lavatory and bathroom in every house is contrary to the L.I.1630 recommendations (CAHF, 1996: 4) and compromises the SDG11 (see Tasantab, 2016: 151).

Table 7: Types of housing in the Swedru municipality

<i>Housing type</i>	<i>Frequency</i>	<i>%</i>
Compound house	165	33.3
Single room self-contained	61	12.3
Duplex	113	22.8
Three bedroom semi-detached	31	6.3
Three bedroom semi-detached	53	10.7
Two bedroom semi-detached	30	6.0
Three bedroom self-contained	20	4.0
Four bedroom self-contained	23	4.6
Total	496	100.0

## 5.5 Measuring housing poverty relative to housing supply

The report from the 2010 housing and population census indicates that Ghana has a housing deficit of 1.7 million. Hence, the country can meet the deficit only if 130 to 140 housing units are provided every year across the country for a decade. As such, using questionnaire responses, this study obtained the number of housing units that are built every year in each of the neighbourhoods selected in Swedru for the year 2020 (see Table 8).

Table 8: Annual (2020) housing supply in the Swedru neighbourhoods

<i>Zones</i>	<i>Quadrant</i>	<i>Neighbourhood</i>	<i>Annual housing supply</i>	<i>Total</i>
A	South-West	Mangoase	22	114
	South-Wes	Pipetank	31	
	South-West	Dwenwoho	36	
	North-Wes	Yaabam	25	
B	North-East	Botwe Estate	39	93
	North-East	Manhodze	19	
	North-East	Tezako	23	
	South-East	Bypass	12	
C	South-East	Odakwam	34	116
	South-East	Ahmadya	16	
	South-East	Nine-Nine	37	
	North-West	Mandela	29	
D	North-East	Anwhease	11	55
	North-East	Chapel Square	21	
	North-East	Asesim	9	
	South-West	Nsusoaso	14	
Overall				378
Average housing supply per neighbourhood				23.63

Source: Questionnaire survey, 2020

Table 8 indicates that, across the 16 neighbourhoods, a total of 378 housing units are supplied annually and, if that number is supplied for ten years, *ceteris paribus*, there will be 3,780 housing units. This is below the 5,200 minimum annual housing units required, according to GSS (2014: 27; Smith-Asante, 2018: 3). Moreover, if 496 housing units in 16 neighbourhoods are accommodating 4,603 occupants (both owner occupiers and renters), then there is a 27.31% shortage, thus a deficit of 142 housing units. This could make 2,885 people across the 16 neighbourhoods either homeless or sleeping in places such as kiosks and the frontage of shops. This situation characterises housing poverty, as it does not support the UN-Habitat's standards.

## 5.6 Income status and the extent of housing tenancy among households

Table 9 shows the income levels of participants who rent and own housing in the Swedru municipality. Overall, the vast majority of the participants rent housing. Most of them (245) earn a minimum income of GH¢200-800 per month and rent houses. In the GH¢3600+ income group, the majority (42) of them live in rented housing, and only 23 live in their own housing.

Table 9: Income status and the extent of housing tenancy

Housing tenancy (households)	Income levels (per month-GH¢)						Total
	200-800	900-1500	1600-2200	2300-2900	3000-3600	3600+	
Renting	245	74	50	52	53	42	516
Owner tenancy	209	50	29	31	35	23	377
Total	454	124	79	83	88	65	893

Table 10: The extent of housing tenancy among households vs income levels of participants (per month-GH¢)

Chi-square test	Value	Df	Asymp. Sig. (2-sided)	*Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point probability
Pearson Chi-square	6.144a	5	.292	.293		
Likelihood ratio	6.173	5	.290	.293		
Fisher's Exact Test	6.037			.302		
Linear-by-Linear Association	4.615b	1	.032	.033	.016	.002
Number of valid cases	893					

\*significant at 0.05 (2 sided)

a. 0 cells (0.0%) have expected a count of less than 5. The minimum expected count is 27.44.

b. The standardised statistic is -2.148.

In Table 10, the Pearson's *Chi*-square test results show a very weak relationship between income and the extent of housing tenancy among households [ $\chi^2 (5) = 6.144, n=893, p=.292 (>0.05)$ ]. Though there is a relation between income and the ownership of housing, the situation in Swedru shows no strong statistical significance, because even higher income earners were living in rented apartments. Akuffo (2006: 18) reveals that commercial banks in Ghana are not interested in housing finance. They would rather concentrate on treasury bills and bonds.

## 5.7 Ranking of factors influencing non-decent accommodation

Table 11 shows the mean score and ranking of the 13 critical, non-decent accommodation factors that have an influence on housing poverty. The rank of each variable was determined by calculating the mean score (MS), which is the sum of scores of the respondents on the variable divided by the total number of respondents, and subsequently arranged in a rank order.

Table 11: Mean scores and ranking of factors influencing non-decent accommodation

Variables	<i>Factors influencing non-decent accommodation in the Swedru Municipality (N = 893) (1 = not at all influential ... 4 = Most influential)</i>	<i>Bartlett's test of sphericity Value = .00</i>	<i>Kaiser-Meyer-Olkin Value = .870</i>	
		MS	Cronbach's Alpha	Rank
V3	Ignorance on the part of houseowners	2.33	.985	1
V12	Poor building plans	2.30	.984	2
V13	Low income	2.24	.982	3
V6	Overall housing deficit	2.22	.983	4
V4	High birth rate among household	2.21	.982	5
V11	Outmoded cultural practices	2.21	.982	5
V8	Lack of national policy for sustainable housing	2.17	.982	6
V9	Land tenure problems	2.17	.982	6
V10	Inadequate building supervision in Ghana	2.16	.981	7
V7	Higher rural urban migration	2.15	.981	8
V5	Higher demand for housing over supply	2.11	.983	9
V1	Poor implementation of the L.I.1630	1.91	.984	10
V2	Lack of affordable housing	1.72	.986	11
Average MS		2.15	.984	

The average MS of 2.15 in Table 11 indicates that household participants perceived all critical factors identified as most influential on non-decent accommodation, particularly, with MS above 2.23, 'Ignorance on the part of homeowners' (MS=2.33), 'Poor building plans' (MS=2.30) and 'Low income' (MS=2.24) were rated the top three factors influencing non-decent accommodation. Interestingly, 'Poor implementation of the L.I.1630' (MS=1.91) and 'Lack of affordable housing' (MS=1.72) were perceived to have a slight influence on non-decent accommodation.

The Cronbach's *alpha* was greater than 0.80 at .985, showing approvable internal reliability, as suggested by Hair, Tomas, Ringle and Sarstedt (2014: 102). The Kaiser-Meyer-Olkin (KMO) of .870 with Bartlett's test of sphericity of  $p < 0.000$ , implies consistency with the recommended KMO cut-off value of 0.80 and Bartlett's test of sphericity of  $p < 0.05$ , as suggested by Pallant (2013: 190). These results imply that factor analysis could be conducted with the data.

## 5.8 Principal component analysis for factors influencing non-decent accommodation in the Swedru municipality

The 13 variables or factors influencing non-decent accommodation in the Swedru municipality were subjected to PCA to study the trend of inter-correlations between variables and to group variables with similar characteristics into a set of reduced factors according to the hidden components in the collected data. The results present the factor extraction, Eigenvalues, correlation, and interpretation.

In Figure 2, the scree plot consists of the Eigenvalues and the data points above the break (point of inflexion), which are the components that are meaningful to retain for rotation. Using a cut-off value of initial Eigenvalues greater than one ( $>1.0$ ), three components explain a cumulative variance of 65.402%, indicating that the other factors are below the point of influence as far as non-decent accommodation is concerned. These factors are V3, V12 and V13, respectively.

The scree plot confirms the finding of retaining three components. Hence, components 4 to 13 are not significant and thus not included for rotation.

Table 12 shows that the three components that are meaningful to retain had a cumulative variance of 65.40, where factor one explains 46.445% of the total variance, factor two 10.782%, and factor three 8.174%. This indicates that all three factors had total initial Eigenvalues greater than 1, thus component 1 (6.038), component 2 (1.402) and component 3 (1.063).

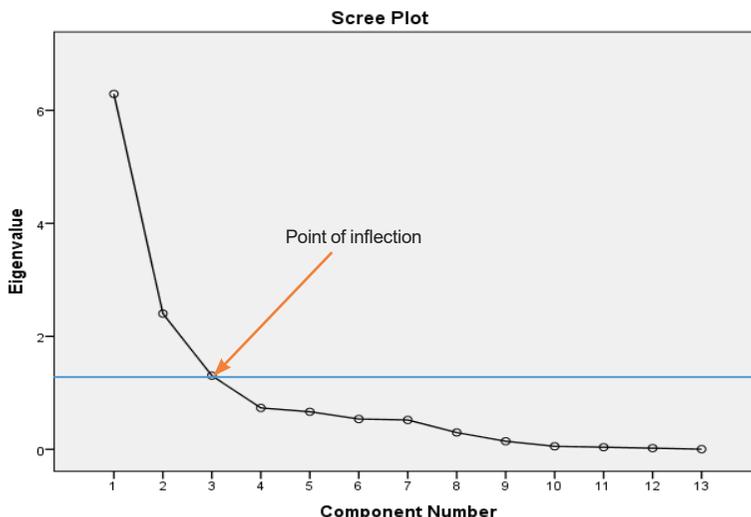


Figure 2: Scree plot for the most influential factors on non-decent accommodation

Table 12: Total variance explained, extraction method, principal component analysis

Component	Initial Eigenvalues			Extraction sums of squared loadings			Rotation sums of squared loadings
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %	Total
1	6.038	46.445	46.445	6.038	46.445	46.445	5.636
2	1.402	10.782	57.227	1.402	10.782	57.227	2.994
3	1.063	8.174	65.402	1.063	8.174	65.402	1.432
4	.877	6.749	72.151				
5	.827	6.360	78.511				
6	.611	4.697	83.208				
7	.581	4.469	87.677				
8	.438	3.370	91.048				
9	.408	3.141	94.188				
10	.255	1.958	96.147				
11	.252	1.940	98.087				
12	.155	1.192	99.279				
13	.094	.721	100.000				

The grouping of variables was based on their factor loadings. A factor loading indicates the degree of association of a variable with the component and the percentage variance of the component that is explained by the variable (Oladimeji, 2019: 157). Using Principal Component Analysis and Varimax with Kaiser Normalization rotation method and with a significant factor of .04, Table 13 shows the correlation between components and variables after rotation. Correlation exists between variables 1, 4, 6, 7, 8, 10 and 13, as they are loaded onto Component 1, denoted as “Ignorance on the part of houseowners”. Correlations were also identified between variables 2, 9, 11 and 12, which are loaded onto Component 2, denoted as “Poor implementation of the L.I.1630”. Variables 1, 3 and 7 show correlation as they are loaded onto Component 3, denoted as “Low income”.

Table 13: Rotated component matrix for factors influencing non-decent accommodation

Variables		Components			Communalities
		1	2	3	
		<i>Ignorance on the part of houseowners</i>	<i>Poor implementation of the L.I.1630</i>	<i>Low income</i>	
V1	Ignorance on the part of houseowners	.983		.674	.617
V2	Poor building plans		.861		.544
V3	Low income			.864	.871
V4	Overall housing deficit	.983			.410
V5	High birth rate among household				.894
V6	Outmoded cultural practices	.889			.926
V7	Lack of national policy for sustainable housing	.926		.582	.948
V8	Land tenure problems	.907			.945
V9	Inadequate building supervision in Ghana		.859		.893
V10	Higher rural urban migration	.856			.959
V11	Higher demand for housing over supply		.837		.713
V12	Poor implementation of the L.I.1630		.896		.544
V13	Lack of affordable housing	.904			.731

For **Factor 1: Ignorance on the part of houseowners (Component 1)**, variables with high loadings above .90 are Overall housing deficit (.983); Ignorance on the part of houseowners (.983); Lack of national policy to

sustainable housing (.926); Land tenure problems (.907), and Lack of affordable housing (.904). Ghana had a housing deficit of over 2 million units in the year 2010 and approximately 5.7 million as of 2020 (GSS, 2012a: 8; Ansah, 2014: 1; Willows Property Management, 2020: 1). This implies that the overall housing deficit in the country is compelling people to live in housing simply for the sake of being safe from the vagaries of the weather and not for comfortable living. Land tenure problems occur, because the acquisition of land for housing purposes in Ghana abounds in bureaucracy and land racketeering (see Appiah, 2007: 15), leading to housing shortage. The lack of affordable housing has made many homeless in Ghana and, although housing is acknowledged as a human right, government involvements have not met the housing needs of the poor (Yirenkyi, 2014: 1). The lack of a national policy for sustainable housing has been a long-term policy problem in Ghana (Oleg & Badyina, 2012: 1). However, since 1980, national housing policies have tended to focus on conferring ownership rights and largely omit rental housing, although it is a viable livelihood strategy for tenants (WSUP, 2013: 2).

For **Factor 2: Poor implementation of the L.I.1630 (Component 2)**, variables with high scores are Poor implementation of the L.I.1630 (.896); Poor building plans (.861); Inadequate building supervision in Ghana (.859), and Higher demand of housing over supply (.837). Since the L.I.1630 is the sole legislative body in Ghana to regulate the construction industry, poor implementation of the L.I.1630 implicates that building plans are not properly approved, and that ongoing building constructions are poorly supervised (Thong, 2014: 18). This has led to poor building quality and layout in the Swedru Township, with the resultant effect of poor road networks, while drains are blocked and poor quality housing structures put tenants in danger, due to fire outbreak and building collapse, aside the fact that buildings do not follow the accommodation standards for decent living (Claude, Omer & Mempouo, 2017: 1).

For Factor 3: Low income (Component 3), Low income (.864), Ignorance on the part of the homeowners (.674) and Lack of national policy for sustainable housing (.582). Low income leads to poor housing in terms of construction materials, furnishes, building services and facilities that bring comfort to the tenants and, hence, decent homes or housing. Housing completion, development and improvement are limited to financing, and in Ghana, most of the house- and landowners are ignorant about how to get loans in the form of a mortgage to complete and improve their housing. A study by Ofori and Ameyaw (2020: 252) reveals that most of the mortgage loans applied for are used for the supply of commercial office spaces, because many residential space owners are concerned about the mortgage rates and perceive that the payment of mortgage loans is

perpetual in nature. This has even compelled some landowners to live in uncompleted buildings that lack salient building facilities that bring comfort.

Although there is a considerable lack of national policy for sustainable housing in Ghana, in this study, such factor is considered not critical, as indicated by lower loadings. Boamah (2010: 1) revealed that several housing policies have been instigated in Ghana since independence in 1957. However, housing in Ghana is branded by insufficient housing stock, congestion, neighbourhood disfigurement, jamming, and housing obsolescence. This study is of the view that in the Swedru municipality of Ghana, the income status of houseowners does not influence the supply of decent accommodation, but rather ineffective enforcement of building laws and regulations. Such findings contradict those of Mitlin (2010: 517), which revealed that the urban poor live in houses with unacceptable standards. The implication is that people feel discomfort in their housing and the policies to redress their challenges are futilely implemented.

## 6. CONCLUSION

The article investigated the extent of non-decent accommodation in the Swedru municipality of Ghana. It examined the types of housing available and found that, although most of the residents are accommodated in compound houses and duplexes, the annual housing supply of 378 houses in 16 communities shows a housing shortage in the Swedru municipality. The study concluded that 16 communities with total housing units of 496 accommodating 4603 people, with an average occupancy per house of 9.30 persons, and 5.51 persons occupying a single room implies that most of the households in the Swedru Township are overcrowded. This is against the SDG11.

The percentage of houses (42.9%) sharing a single bathroom implies that over nine persons using one bathroom pose a health risk in circumstances where physical distancing is a key measure to mitigating contagious diseases such as the coronavirus (COVID19) and is against the sustainable development goal 11 that focuses on sustainable city development. An urban area with 15.8% of the households practising free range owing to inadequate provision of lavatories is a threat to the SDG6 that focuses on clean water and sanitation. A municipality with the vast majority of the population aged between 26 and 33 years implies that the birth rate would be high in the near future and, if housing stock is not increased to match up with demand of the growing population, the municipality would have most of its households become homeless. The provision of affordable housing units by the state to increase the housing stock in the municipality is recommended. In general, there must be effective implementation and enforcement of building regulations in Ghana

(L.I.1630) to ensure the provision of adequate housing facilities needed to complement decent accommodation.

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