

*Full Length Research Paper*

# Urban Sprawl: A view from developing and developed Countries

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Though urban sprawl is often discussed without a specific definition, the term generally, connotes development patterns that are undesirable. In developed countries, this phenomenon of urban sprawl has a significant attention with regard to how it is described as well as its impacts. However, the nature of this phenomenon in developing countries still requires attention and traction in literature. Therefore, this study sought to highlight some of the characteristics of urban sprawl from the perspective of a developing country by juxtaposing the Ghanaian and the U.S. versions of urban sprawl as way of also stimulating further discussions in this direction. The study found out that though there are similarities in the causes and impacts of urban sprawl in both Ghana and the U.S., the socio-economic conditions as well as cultural systems in both countries play significant roles in the evolution and perception of the phenomenon in both countries.

**Key words:** Urban sprawl, Ghana, U.S., developing countries, developed countries.

## INTRODUCTION

Urban sprawl is often discussed without any associated definition in planning literature (Harvey and Clark, 1965; McKee and Smith, 1972). Urban sprawl is, pejoratively, any urban development pattern which is undesirable (Knaap et al., 2000). Urban sprawl is a low density, spatially extensive pattern of development that has become dominant in current development patterns for at least four decades now (Bruegmann, 2005; Fulton et al., 2001; Glaeser and Kahn, 2004; Úlfarsson and Carruthers, 2006). Furthermore, by definition, urban sprawl is excessive spatial growth of cities (Brueckner, 2000). While some researchers define sprawl in simple terms and statements, others define sprawl by giving some general attributes of it. For instance Ewing et al. (2002) define sprawl by considering the following characteristics: a low density development with residential, shopping and office areas that are strictly fragmented; a lack of thriving activity centres and limited choices in travel routes. Furthermore, Burchell and Mukherji (2003) define urban sprawl as a low density, leapfrog development that is attributed with a strip form along major thoroughfares at the periphery of a metropolitan area. Again, Burchell and Mukherji (2003) see urban sprawl as any development, residential or non-

residential, that takes place in a relatively pristine environment. Referring to the myriads of definitions, it clear that the term urban sprawl is not straight forward to define as most theorists and practitioners attempt to give certain characteristics of it in their bid to define it.

Incidentally, the phenomenon of urban sprawl is a global issue as it is not only evident in developed countries but also in developing countries. Clearly, urban sprawl is usually deemed to be one of the effects of urbanisation, though a careful analysis needs to be made as to what is a legitimate urbanisation in developing countries and undesirable expansion of cities. This assertion makes it imperative for a careful analysis of the phenomenon of urban sprawl from the perspectives of both developing and developed countries. The dynamics and contexts of urbanisation in developing countries, presently, are quite different from now-developed countries (Menon, 2004). Urban sprawl as a conventional development pattern is a view or observation from developed countries. All definitions and characterizations are as per the views of developed countries. However, the indicators, causes and impacts of urban sprawl in developing countries have points of departures from developed countries (Menon, 2004). A critical look at urban

sprawl from the perspective of developing countries holds the key to dealing with the phenomenon pragmatically in developing countries. Developing countries borrowing policies from developed countries to control, perceived, urban sprawl is not the problem. However, it is a question of whether or not those policies are bespoke in dealing with urban sprawl in developing countries. Analysing urban sprawl, with regard to similarities and differences, from the points of view of both developing and developed countries is needful to put the term *urban sprawl* in its proper perspective in the different economic regions of the world. Again, a better understanding of the nature of urban sprawl in developing countries would better inform policies that seek to deal with infrastructure costs concerns warranted by recent sprawling developments in developing countries.

### STUDY APPROACH

The analysis of urban sprawl from the perspectives of developing and developed countries will premise on Ghana, a developing country in West Africa and North America, particularly, the United States, an epitome of urban sprawl. In literature, urban sprawl is usually characterised and described by mixing both causes and impacts (Jaeger et al, 2010). Generally, in literature, every discussion of urban sprawl has to be approached from this two-pronged dimension. The recent analysis will, therefore, hinge on the causes and impacts of urban sprawl as perceived in both developing and developed countries to delineate the similarities and differences of the phenomenon in the different economic regions of the world. Only a descriptive approach would be employed in analysing the similarities and differences of the phenomenon of urban sprawl in both Ghana and the United States. It is thus suggested that further studies engage the descriptions provided in this analysis by means of empirical approaches to determine the applicability of the observations made. In that sense, more insights will be provided on the similarities and differences of urban sprawl in both developing and developed countries. Elucidating the descriptive approach, which seeks to draw out some similarities and differences of the phenomenon of urban sprawl in both Ghana and the United States, ten dimensions of urban sprawl which are widely discussed in literature are considered as the framework for the analysis. The ten dimensions of urban sprawl are primarily categorised into causes and impacts with a description of the situation of the phenomenon in both Ghana and the United States related to each dimension. Again, the ten dimensions of urban sprawl are evaluated against five assessment measures to further delineate the similarities and differences of the phenomenon in both Ghana and the United States. Finally, the policy implications of the analysis are proffered.

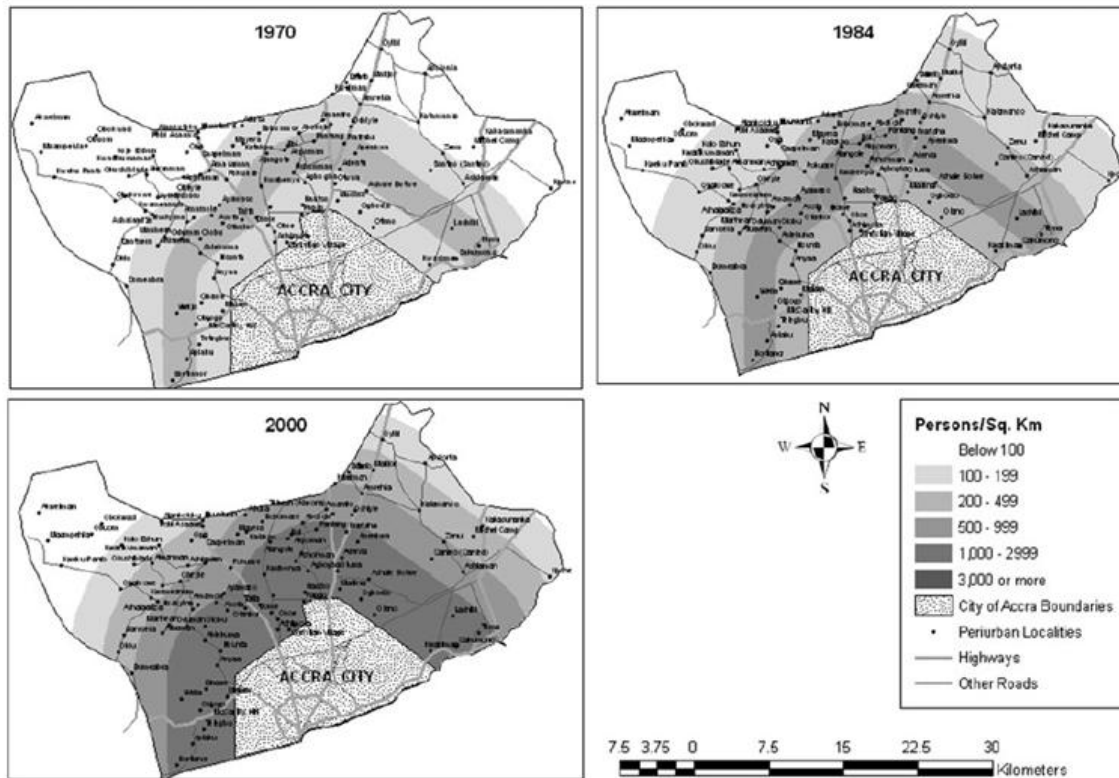
### General pattern of the urban development in Ghana

Though the emphasis of the analysis is on the dynamics of urban sprawl in Ghana and the United States, it is important to give a general description of the pattern of urban development in most Ghanaian cities as a backdrop for a better appreciation of the analysis. Generally in literature, several patterns have been proffered that directly or indirectly explain the urban development in most Ghanaian cities. Yeboah (2000; 2003) identify the current urban development in Accra – the capital of Ghana – as a quality residential sprawl with uncentric urban form. Such a tendency is not different from what is happening in most other Ghanaian cities. Yeboah (2000) further argues that the quality residential sprawl with uncentric urban form in Accra is characterised by seven attributes: high quality buildings by the middle class, incremental building, building in anticipation of infrastructure, low density development, building for residential rather than commercial and industrial purposes, spontaneous and unplanned developments, functional interaction between Accra central and peri-urban developments. The quality residential sprawl with uncentric urban in Accra is deemed to be occasioned by global factors which manifest in trade liberation and foreign currency liberation – on one hand – and local factors such as the economic situation, weak institutional framework for delivery of lands, Ghanaian cultural considerations as well as innovations on the supply side of the housing market, on the other hand (See Yeboah, 2000).

Besides, in an empirical work by Owusu-Ansah and O'Connor (2010) on the pattern of urban development in Kumasi (the second most important city in Ghana), the authors described the nascent physical landscape as a “mosaic of housing structures scattered haphazardly on the fringes of Kumasi”. Owusu-Ansah and O'Connor (2010) ascribed the current urban pattern in Kumasi to the following reasons: a rising demand and growth of single family housing at the peri-urban areas (motivated by changing values about residential locations), a complex institutional system with respect to land administration and – finally – the incremental system of housing construction.

A more recent empirical work by Doan and Oduro (2011) further gives insightful information about the urban development pattern in most Ghanaian cities. Doan and Oduro (2011) employed spatial modelling (ArcGIS) and regression analysis on population census data and argue that the pattern of urban development in Accra (a replica of development in other cities in Ghana) could be best described as a combination of a spreading pancake, development node, village magnet and ribbon patterns.

On the spreading pancake development pattern, Doan and Oduro (2011) argue that population and development are concentrated at localities within and closest to the central city (Accra). However, with increasing distance from



**Figure 1.** Population Density by Proximity to Accra, 1970, 1984 and 2000  
Source: Doan and Oduro (2011).

the central city (Accra), population and development decline in series of concentric rings around the central city (Accra). See Figure 1 for the phenomenon.

Explaining the development node pattern, they indicate that localities close to a cluster of global investments are likely to experience population concentration and development than localities further away from that development node. Hence, Tema, the main harbour city in Ghana attracts higher concentrations of population and development at localities closest to it while population and development decline with distance away from it (See Figure 2).

According to Doan and Oduro (2011), in Ghana, existing villages with basic infrastructure (close to major urban centres) are engulfed by rapid urbanisation. Those villages become the nuclei of fast-growing densely populated pockets surrounded by slow-growing sparsely populated localities. Taking localities like Adenta, Ashaiman, Dome, Gbawe and Madina in the Greater Accra Metropolitan Area (GAMA), they identify a high concentration of population and development around those village magnets with population and developments declining with distance from those village magnets (See Figure 2).

Again, Doan and Oduro (2011) assert that the pattern of urban development, particularly at the peri-urban areas, in Ghana is ribbon in nature. They indicate that population and development are highly concentrated at localities close to highways emanating from the central city while population and development decline with increasing distance from those highways (See Figure 3). Accessibility and need to maintain a functional relationship with the central city by peri-urban dwellers are deemed to be the reasons for this pattern (Doan and Oduro, 2011).

### **Causes of urban sprawl in Ghana and the United States**

#### **Urban growth**

The fact that urban growth, particularly population growth, induces urban sprawl cannot be denied in both developing and developed countries. Albeit – critically – mere population growth does not necessarily translate into urban sprawl and could invariably induce a compact development pattern through land intensification policies

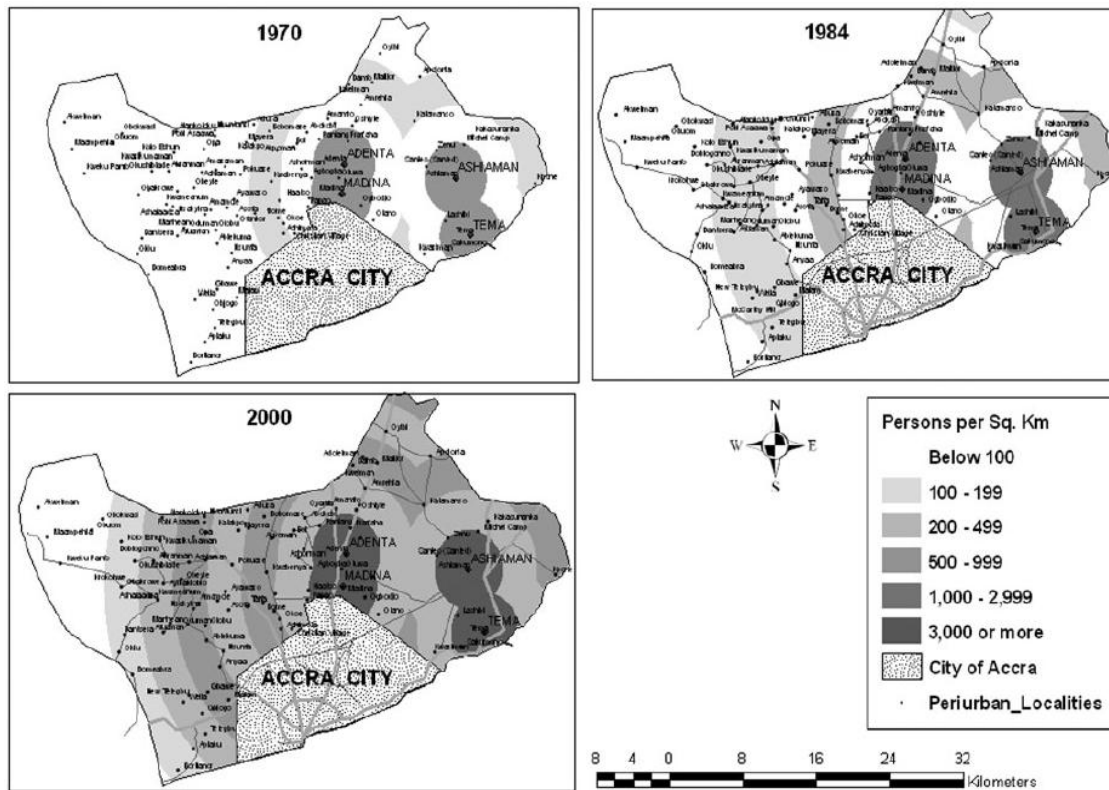


Figure 2 Population Density by Proximity to Tema, Ashaiman, Adenta, Dome, Gbawe and Madina, 1970, 1984 and 2000  
Source: Doan and Oduro (2011).

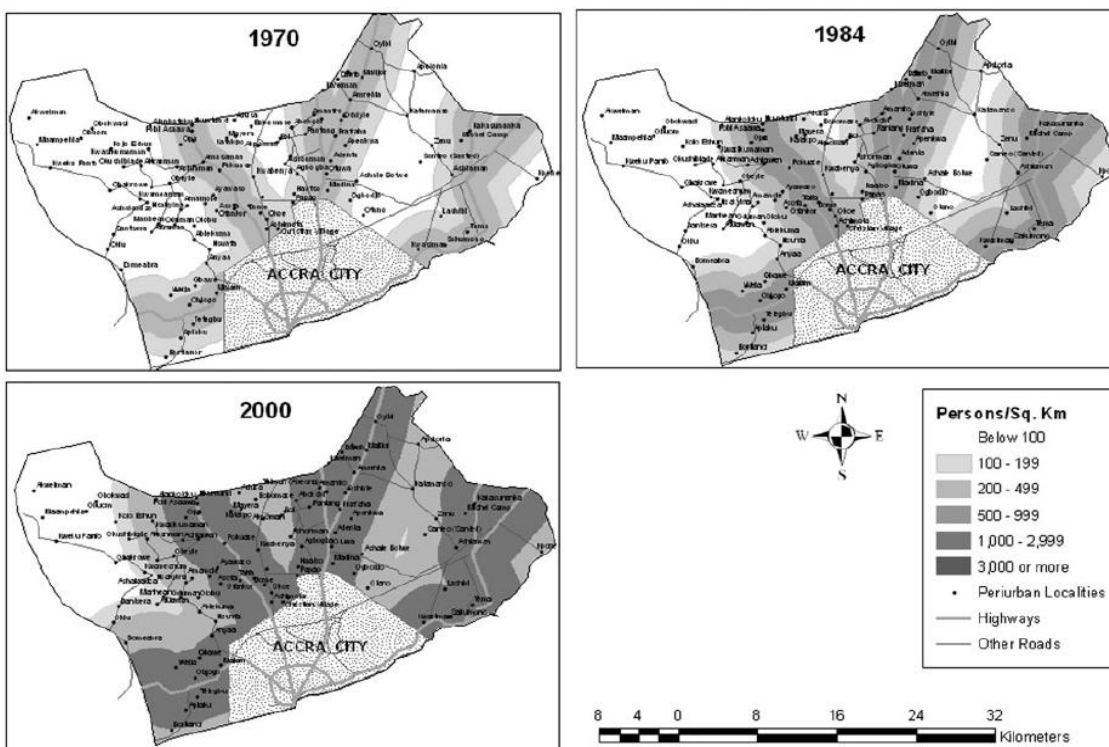
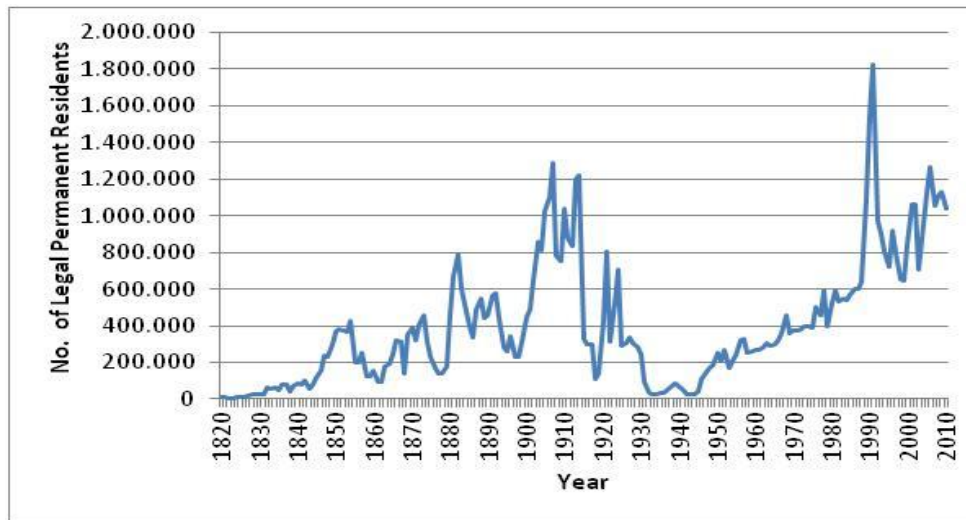


Figure 3 Population Density by Proximity to Highways, 1970, 1984 and 2000  
Source: Doan and Oduro (2011).

**Table 1.** Growth in Number of Urban Localities and Population in Ghana.

Year	Number of Urban Settlements	Urban Population
1948	41	570,597
1960	98	1,551,174
1970	135	2,472,456
1984	203	3,938,614
2000	364	8,278,636

Source: Songsore (2009).



**Figure 4** Legal Immigration to The United States: Fiscal Years 1820 to 2010 (in millions)

Source: U.S. Department of Homeland Security (2010).

(construction of blocks and high-rise buildings), if uncontrolled could equally lead to haphazard developments and urban sprawl. The persistent urban population growth for the past five decades has seen tremendous rise in urbanisation and the number of urban localities in Ghana (See Table 1). Similarly, census data for hundred largest urbanised areas in the United States (U.S.) from 1970-90 reveals that about half (50.90%) of the sprawl in the U.S. is accounted for by population growth (Kolankiewicz and Beck, 2001). The source of the population growth coupled with the socio-economic situations in the urban areas determines the dynamics of urban sprawl in both developing and developed countries. In Ghana, a substantial share of population growth in urbanised areas is due to rural-urban migration (Twumasi-Ankrah, 1995). This phenomenon is anchored by the urban primacy nature of development in Ghana where a few cities are developed and served with good infrastructure. The primate cities and urban centres thus become attractive destinations for the rural dwellers. The influx of population at the major urban centres raises concerns about urban density and available space for manoeuvring. Menon (2004) indicates that in developing

countries, people move to the suburban areas because there is not enough space for them to live at the urban core. The need for legitimate space in developing countries should be decoupled from luxurious need for space in developed countries. The basic need for space and the inability of the government to predict and manage urban population growth – usually – result in outward city expansions in Ghana. The rural immigrants squat on vacant government lands (in the form of slums) at the urban core, indirectly forcing new developments, to the peripheries.

To some extent, urban sprawl due to urban growth appears to be different in the United States. Kolankiewicz and Beck (2001) indicate that fertility rate as a major cause of urban population growth has dipped while most urban population growth in the U.S. is due to immigration. Immigration in the U.S. has been on the rise, especially after the World War II as indicated in Figure 4, and appears to account for a significant share of the percentage of overall sprawl caused by population growth.

Figure 4 shows a dramatic increase in immigration in the U.S. around the 80s, exactly within the same time period

**Table 2.** Declining U.S. Household Size.

Year	1930	1950	1960	1970	1980	1990	2000	2009
Household Size	3.67	3.37	3.33	3.14	2.76	2.63	2.62	2.63

**Source:** El Nassar and Overberg (2011).

**Table 3.** Finished Floor Area of Single Family New Home in The United States.

Year	1950	1970	1990	2004
Average Finished Area (Sq. ft)	983	1,500	2,080	2,349

**Source:** National Association of Home Builders (2006).

that Kolankiewicz and Beck (2001) analysed data for factors contributing to sprawl in the U.S [See Kolankiewicz and Beck (2001) for more discussions on the factors of urban sprawl in the U.S.].

Similar to Ghana, a significant share of suburban development in the U.S. is by preference (Gordon and Richardson, 1997; Fuguitt and Brown, 1990; Sullivan III, 1994). High and middle income households desiring large tracts of land for single family homes at discounted prices at the suburban areas move from the urban core to the peripheries. The area of land consumed per household at the suburban areas may be relatively higher in the U.S. than in Ghana. This may, partly, explain why density is likely to be lower at the suburban areas in the U.S. than in Ghana.

The increase in space and land per capita coupled with drop in household size (See Table 2) is fuelling sprawl in the U.S. The increase in space and land per capita in the U.S is partly reflected in the increasing total floor areas of finished single family homes from 1950 to 2004 (See Table 3).

### Benefits

Urban sprawl does not take place in abeyance. Its occurrence is linked to some perceived benefits among many people. In the U.S, lower land and housing costs; larger average lot size; larger homes and room sizes; preference for low density developments; neighbourhoods with lower crime rates; the desire for better quality public schools and stronger citizen participation and influence in local governments, among other benefits, are reasons why people opt for suburban settlements which, eventually, lead to urban sprawl (Knaap et al., 2000; Brueckner, 2000).

The benefits of urban sprawl as pertained in the U.S have some similarities in Ghana since most of the new housing stock in major cities – currently – are owned by Ghanaian who have either lived abroad or are still living abroad (Diko and Tiple, 1992; Grant, 2007). Yeboah (2003) indicates that half of the new housing stock in Accra now is owned by Ghanaians living abroad. Ghanaians abroad, certainly influenced by the western culture particularly the U.S, are prejudiced with regard to the location and type of houses they construct. In Ghana, suburban settlement may not promise better quality school as the case of U.S may be, however there are some local and cultural factors that give rise to single family homes at the suburban areas in Ghana. There is usually pressure exerted by family members (Yeboah, 2000) and the society on up-and-coming people to own their own homes. Building a house in Ghana shows the social status of the builder (Korboe, 1992; Grant, 2007; Malpezzi and Tiple, 1990; Diko and Tiple, 1992). Hence building a house in Ghana, which is more likely at the suburban area, gives relief from family pressure and raises one's social status. Besides, suburban development through real estate developers provides an escape route for the numerous controversies surrounding land acquisition and building construction in Ghana (Grant, 2007; Doan and Oduro, 2011). A survey conducted by Grant (2007) reveals that, Ghanaians preferred single family homes so as to achieve financial independence from the extended family.

### Public and statutory regulations

Public and statutory regulations are generally deemed as drivers of urban sprawl in most parts of the world. In the U.S, the role of public and statutory regulations in inducing

**Table 4.** Employment Status of Currently Employed Above 15 Years in Ghana.

Employment status	Urban		Whole Ghana (%)
	Male (%)	Female (%)	
Employee	49.7	20.1	17.6
Employer	7.4	5.5	4.5
Own account worker	33.8	60.3	55.0
Contributing family worker	4.1	11.0	20.4
Apprentice	4.7	3.0	2.3
Other	0.3	0.1	0.1
All	100.0	100.0	100

**Source:** Ghana Statistical Service (2008).

urban sprawl is very much noted and opined by many researchers (Harvey and Clark, 1965; Snyder and Bird, 1998; Persky et al., 2000; Knaap et al., 2000; Pendall, 1999; Shen, 1996; Feitelson, 1993; Levine, 1999). Government's investment in physical infrastructure Knaap et al. (2000) without any consideration for subsequent effects on urban forms and zoning (Pendall, 1999; Shen, 1996; Feitelson, 1993; Levine, 1999) are perceived to cause urban sprawl in the U.S.

Unlike the U.S – in Ghana – the lack of enforcement of public and statutory regulations contributes partly to unserviced lands. The unserviced lands in most urban areas culminate into lower land values (Asiama, 1989) which promote urban sprawl. Again, the non existence of proper planning measures coupled with lack of enforcements, in Ghana, has the same tendency of scattering developments and lowering overall densities as the case of zoning may be in the U.S. The compulsory acquisition of land by the government from families and traditional authorities without proper compensation – sometimes – leads to litigation and large vacant lands skipped in urban developments.

## Impacts of urban sprawl in Ghana and the United States

### Economic decentralisation

The displacement of economic activities from the urban core to the suburban areas usually characterise urban sprawl. Glaeser and Kahn (2003) refer to decentralisation as the spreading of employment and population throughout the metropolitan areas. Addressing the situation of decentralisation in the United States, Office of Technology Assessment (1995) reveals that job creation and office spaces have been more active at the suburban

areas in the United States. Local and state governments' actions to entice businesses and residents through public subsidies for infrastructure for new business and housing developments, partly explain the increasing rate of decentralisation in U.S. (Kolankiewicz and Beck, 2001; Glaeser and Kahn, 2003). American cities are becoming highly polycentric with many specialised centres being established at suburban areas other than the traditional urban cores (Batty et al., 2003). A variant of this pattern is evident in China with the establishment of new university towns and technology or industrial enclaves, away from already established urban areas (Zhang, 2000).

The case of Ghana, with regard to decentralisation, appears to be different. Much as there is evidence of decentralisation, it could not be taken as economic based. The spread to the suburban areas is significantly dominated by residential developments. Commercial and business activities are still located at the urban core. Suburban dwellers commute to the city centre to engage in economic activities.

Consequently, Yeboah (2000) describes the development pattern of Accra, a replica of other cities, as a quality residential sprawl with unicentric urban form. The description of quality residential sprawl is given credence by the high share of "own account workers" or informal petty traders, other than formal industrial employees, in urban areas and Ghana as a whole (See Table 4). The "own account workers", undertaking their economic activities mainly at the urban core, contribute significantly to new residential developments at the urban peripheries.

### Low density development

In the U.S., urban sprawl is perceived as a low density and spatially extensive development pattern (Fulton et al.,

**Table 5.** Indicators of Incremental Building System Around Kumasi.

Suburban Area	Numbers of Lots	of Completed and Occupied	Partially Complete and Occupied	Substructure or Skeletal Structures	Vacant Land
Ayeduae	790 (100)	587 (74)	102 (13)	80 (10)	21 (3)
Kenyase	738 (100)	425 (57)	130 (18)	79 (11)	104 (14)
Adarko Jachie	420 (100)	106 (25)	76 (18)	138 (33)	100 (24)
Esreso	545 (100)	282 (52)	76 (14)	120 (22)	67 (12)

**Note:** Figures in parenthesis are percentages of the selected indicators  
Source: Owusu-Ansah and O'Connor (2006).

2001; Glaeser and Kahn, 2004; Bruegmann, 2005; Úlfarsson and Carruthers, 2006; Ewing, 1997; Galster et al., 2001; Burchell and Mukherji, 2003). The phenomenon of single family homes at the suburban areas in the U.S. is not different from similar developments in Ghana. Single family homes built on lots of two to five acres McKee and Smith (1972) at the suburban areas are deemed to cause low density developments in U.S. Low density developments are equally evident at the suburban areas in Ghana not necessarily because of demand for large lot sizes, but partly due to the predominant system of building. Diko and Tipple (1992) and Yeboah (2000) assert that in Ghana, buildings are designed and constructed incrementally. The incremental development of buildings – particularly for residential purposes – is occasioned by the financial ill-preparation of home builders (who still commence development with the hope of completing in a remote future and also as a means of securing the land) and the wide-spread informal housing development system in Ghana. The worse effect of incremental building is felt on urban development when substructures and portions of superstructures of buildings are constructed and left over a considerable time without occupancy.

Table 5 shows some indicators of incremental building system at selected peri-urban areas in Kumasi, the second populated city in Ghana. At least 10% of the developments in each locality is either at the substructure level or not developed at all. The worse situation is the Adarko Jachie locality which has more than 50% of its development at the substructure level or not developed at all.

As shown in Figures 5 and 6, the usual view of most suburban areas in Ghana is proliferation of residential structures at various stages of completions. This system of home construction, spanning over several years, contributes to the low density developments at the urban peripheries.

The complex mix of accelerated land demand by the urban middle class, the traditional land management structures embedded in the institution of chieftaincy and the official state land management structures (Owusu-Ansah and O'Connor, 2006) usually lead to confusions and litigations in land administration in Ghana.

The consequence is that lands are being held from developments, increasing the share of vacant lands in between developments and lowering densities at the suburban areas. The vacant lots interspacing the uncompleted residential structures in Figures 5 and 6 are as a result of either a purchase by the middle class awaiting later development or land litigation.

## SOCIAL PROBLEMS

Urban sprawl is usually characterised by income and racial segregation (Batty et al., 2003). In developed countries, particularly in the U.S., the wealthy and white households move from the urban core to the peripheries to avoid the social problems that are associated with city centres (Audirac et al., 1990; Glaeser and Kahn, 2003; Glaeser et al., 2000). This leads to population decline and loss at the urban cores. It is argued that transportation technologies play a major role in explaining this segregation (Gin and Sonstelie, 1992; Glaeser and Kahn, 2003). The main reason is that cars are expensive and the poor who cannot afford cars are forced to live in the city centres. This assertion is supported by Glaeser et al. (2000) who posit that poverty rates are much higher at locations closer to public transit stops and where access to public transportation increases, poverty rates increases. Glaeser and Sacerdote (1999) point out that – in developed countries – urban sprawl results in people living in single family detached houses and are less likely to interact with their neighbours than people who rent in the city centres.





**Figure 2.** A Section of Gbawe, A Locality in The Greater Accra Metropolitan Area, Showing Residential Structures at Various Stages of Completion (Scale: 1:20m).  
Source: (Google maps, 2011).



**Figure 3.** A Section of Ofankor, A Locality in The Greater Accra Metropolitan Area, Showing Residential Structures at Various Stages of Completion (Scale: 1:20m)  
Source: (Google maps, 2011).

The urban cores in Ghana are active and booming with high population densities. Even though the urban cores are active and booming, there is movement to the suburban areas by the low, middle and high income groups in Ghana (Yankson et al., 2004). The movement to the suburban areas or peripheries is not necessarily due to the middle and high income people wanting to flee

the social vices in the city centres. Yankson et al. (2004) indicate that liberalisation policies resulted in a hike in rents (particularly in Accra), triggering the migration of both poor and wealthy households from the city centre to peri-urban areas in search of cheaper land and residential accommodation. Moreover, there are cultural and local factors in Ghana that support the movement of

the middle and high income groups to the peripheries. There is a cultural perception that house ownership gives security and shows one's social status (Malpezzi and Tipple, 1990; Diko and Tipple, 1992; Korboe, 1992; Grant, 2007). Again, the housing system in Ghana does not facilitate the future ownership of rented houses in the city centre. The rented houses, mostly compound houses which account for 44.5% of housing stock in Ghana (Ghana Statistical Service, 2002), are usually family properties which cannot be easily transferred to non-family members (Grant, 2007). Adequate privacy of households is also not ensured in compound houses. The interplay of these factors forces the middle and high income households to meet their housing needs at the suburban areas. Unlike the U.S. and other developed countries, land use fragmentation (a characteristic of sprawl) reducing the transportation choice of the poor and confining them to the city centres and transit corridors is less evident in Ghana. The informal urban transportation system – primarily in the hands of the private sector and motivated by profit – makes almost every settlement point accessible. Local bus systems called *tro-tros* coupled with ubiquitous taxis provide the poor, nearly, the same accessibility as the wealthy who depend on their private cars. The incremental system of building in Ghana – which spans over several years – (Diko and Tipple, 1992; Yeboah, 2000) at the suburban areas provides homes for the urban poor who squat in those uncompleted structures and act as caretakers. A significant share of the single family houses at the suburban areas are owned by Ghanaian emigrants (living in mostly U.S., Europe, Australia and other developed countries) who have their houses occupied by caretakers after completion (Grant, 2007). These caretakers are usually the low income family members who interact socially. Social interactions at the suburban areas in Ghana are quite significant, especially with the proliferation of churches at the suburban areas.

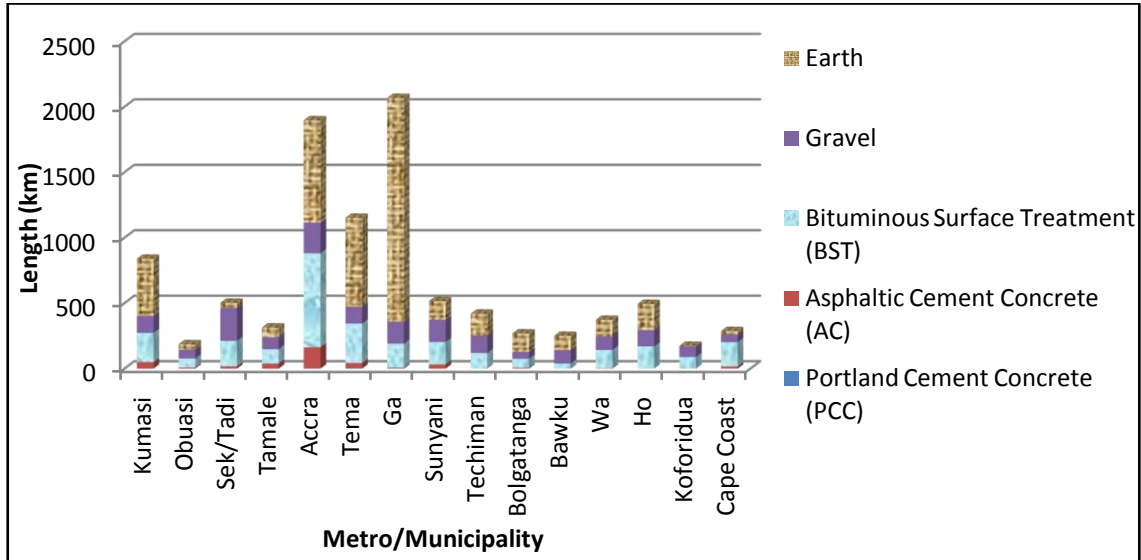
### Accessibility

Urban sprawl is usually linked with poor accessibility in the U.S. Ewing, et al. (2002) argue that, in the U.S., spread-out suburban subdivisions are a major feature of sprawl, and can make it difficult to provide residents with adequate nearby shopping or services, civic centres or transportation options. The issue of accessibility in the U.S appears to be due to its fragmented and homogenous land uses. Looking at accessibility critically, transportation scholars refer to access as the purpose of travel, while mobility simply connotes the ease of getting from one point to the other (Levinson and Krizek, 2005). Furthermore, Crane (2008) posits that access is about being at places and doing things while mobility is the cost of getting to those places or destinations. The issue of

accessibility as linked to urban sprawl appears different in Ghana. The informal system, supporting petty retailing and other social services, within neighbourhoods limits the purpose of travelling and also reduces the cost of mobility. Again, the weak planning system (reflected in outdated provisions and lack of enforcements) in Ghana does not ensure pure homogenous and fragmented land uses as the case of U.S appears. Urban development and expansion are residentially driven (Yeboah, 2000) and interspaced with petty commercial and social services to meet the needs of neighbourhoods. As already discussed under the social dimension of urban sprawl, the problem of accessibility that urban sprawl appears to create is benign in Ghana as the informal urban transportation system makes almost every settlement point accessible. The point on accessibility and its advantage in Ghana is with reference to access. That is, being able to get to places of choice and in touch with services without necessarily emphasising the ease of getting there. Obviously, the high car ownership rate in the U.S appears to enhance mobility and ensures ease of getting to places of choice as compared to Ghana. On the average, commuting times in the U.S are lower as compared to Ghana due to the ease of mobility and relatively good roads.

### Aesthetics

Aesthetically, urban sprawl is maligned in literature, particularly in the U.S, as aesthetically distasteful (Clawson, 1962; Abrams, 1971; Lessinger, 1962). One of the often criticised patterns apart from the dislike for its low density and scattered pattern is the strip or ribbon pattern – commercial developments flanking highways and exits of highways (Torrens and Alberti, 2000). In the U.S, those commercial developments along highways spring up to serve suburban commuters and dwellers. Strip or ribbon development pattern is an old and common phenomenon in Ghana. Poor road development and accessibility provide the basis for most towns to develop – linearly – along highways and thoroughfares (See Doan and Oduro, 2011). Unlike the U.S where such strip or ribbon developments are more or less commercial alleys, in Ghana it is a mixture of both commercial and residential developments. In the U.S and other developed countries, where planning regulations are adhered to and enforced, highways or trunk roads are usually aligned from settlements or city centres with connections achieved through exits and ramps. However, the weak planning system (reflected in outdated provisions and lack of enforcements) coupled with poor accessibility in Ghana has made developments along highways an acceptable and conventional pattern of urban development. The aesthetic criticisms of the strip or ribbon development pattern are premised on deviation



**Figure 7. Composition of Road Surface Type in Metropolitan and Municipal Areas in Ghana As of 2006**  
Source: Ministry of Roads and Highways, Ghana, (2007).

from the norm in the U.S. However, in Ghana whether or not strip or ribbon development pattern is an unintended planning practice or legitimate need for accessibility which has now become a norm is one issue that is debatable when describing urban sprawl.

### Dynamics

Much as some researchers posit that urban sprawl is a moment of time (Harvey and Clark, 1965; Schmid, 1968; Ohls and Pines, 1975; Ottensmann, 1977; Peiser, 1989; Ewing, 1994), there is little in literature, particularly in the U.S, to prove empirically that sprawl metamorphoses into compact and desirable developments (Galster et al., 2001). In the U.S, it appears this dynamics of development is discounted with urban sprawl usually perceived as a state and not a process. In Ghana, the dynamics of development cannot be discounted, as a development that is initially perceived as a sprawl could turn out to be filled-in and compact in a short time. Unlike Ghana, some basic infrastructure (roads, water and electricity distribution networks) usually precede development in the U.S. This means that, in the U.S, development is a function of infrastructure which controls and predicts the possibility and rate of densification of an initial sprawling development. The case of Ghana is different. The development practice whereby houses precede or are built in anticipation of infrastructure (Yeboah, 2000) serves as a catalyst for development annexation and in-filling in Ghana. This practice makes land previously skipped to be rapidly used up for development and consequently ensure densification.

Figure 7 indicates a high share of unpaved roads in top 15 urbanised areas in Ghana.

The high share of the unpaved roads can be, partly, explained by the practice of development undertaken in anticipation of infrastructure. Most of the unpaved roads are located at urban peripheries.

A careful look at development patterns in Ghana depicts a continuum of development from what appears to be sprawl – initially – to a denser development, later. The dynamic nature of development in Ghana makes urban sprawl to be more of a process than a state in Ghana.

### Open space

The consequence of urban sprawl with regard to its erosion of open spaces is evident in both the U.S. and Ghana. Lands that were previously for agricultural and forest uses are now converted to urban uses in both countries. However, addressing the issue of eroding open spaces as a characteristic or indicator of urban sprawl requires a decoupling of its environmental concern from the recreational value in the Ghanaian context. In the U.S, both environmental and recreational concerns are fused when discussing the consequence of urban sprawl from the point of view of open spaces erosion. The culture of relaxing and recreating at an open space such as a park is not part of the daily lifestyles of Ghanaians and are usually not emphasised in urban planning. Passmore (2011) also reveals that though larger conservation-style parks (Kakum National Park, Mole National Park, etc) exist in Ghana, they are usually dis-

**Table 6.** Perception of Urban Sprawl in U.S. and Ghana.

<b>Dimension of Urban Sprawl</b>	<b>Evident in Both Countries</b>	<b>Strongly Linked to Urban Sprawl in Both Countries</b>	<b>A Deviation from the Norm* in Both Countries</b>	<b>Perceived as Undesirable in Both Countries</b>	<b>Unequivocally a Deviation from Developed Countries' Version of Urban Sprawl</b>
Urban Growth	Yes	Yes	Yes	Yes	Probably
Social Problems	Yes, but urban decline in U.S. and booming urban core and slums in Ghana	Yes	Probably	Probably	Probably
Spread of Employment and Population to Suburban Areas	Yes in U.S., but mainly population based in Ghana.	Yes, but only on the account of population in Ghana	Yes	No clear agreement	Probably
Low Density Development	Yes, but with a relatively higher overall density in Ghana than the U.S.	Yes	Yes	Yes in U.S., but no clear agreement in Ghana	No
Poor Accessibility	Yes in U.S., but no clear agreement in Ghana	Yes in U.S., but no clear agreement in Ghana	Yes in U.S., but no clear agreement in Ghana	Probably	Probably
Poor Aesthetics	Yes	Yes	Yes in U.S., but no clear agreement in Ghana	Probably	No
Dynamics	Not clear in U.S., but Yes in Ghana	No clear agreement in U.S., but Yes in Ghana	Not clear	No	Yes
Open Spaces Erosion	Yes	Yes	Yes in U.S., but no clear agreement in Ghana	Yes in U.S., but not a general concern in Ghana	No
Benefits	Yes	Probably	No clear agreement	No	Probably
Public and Statutory Regulations	Yes	Yes, but enforcement leads to sprawl in U.S while the converse is true in Ghana	No clear agreement	Probably	Probably

\* Norm here refers to traditional or long-established practices which are usually perceived as yardsticks for comparing current developments.

connected from the daily lives of Ghanaian and treated as sanctuaries, functionally, operating for tourists.

Lifestyles are changing due to Ghanaians travelling abroad and foreign people, particularly with western descent

moving to Ghana. However, generally, the perception of an average Ghanaian of urban sprawl from the point of view of open spaces erosion is likely to be its environmental concern and not for recreational purpose. This raises a concern of the acceptability of open spaces in and around urban areas in Ghana and whether its erosion is considered a phenomenon of urban sprawl.

### **Overview of urban sprawl in Ghana and the United States**

Though literature on urban sprawl in developing countries has been emerging over two decades now, much work would still be required to further give more insights into the phenomenon in developing countries. Furthermore, analyses on the differences and similarities of the phenomenon between developing and developed countries are scanty. More researches and debates are required to fill the gap that exists in this area. The analysis of the differences and similarities of urban sprawl in U.S. and Ghana is summarised in Table 6.

Ten dimensions of urban sprawl, widely discussed in literature, were evaluated against five assessment measures. In evaluating the urban growth dimension against the five assessment measures, urban sprawl appears to be similar in both countries (See Table 6). However, a slight distinction exists as in the way the socio-economic situation in Ghana influences urban growth as a cause of urban sprawl. Unlike the U.S., the uneven development and urban primacy situations fuel urban growth in Ghanaian cities to induce sprawl other than mere rise in per capita land demand as the case of U.S. may be. Besides, the benefits of sprawl which is deemed to induce such an undesirable development pattern share some similarities in both Ghana and the United States (See Table 6). However, the cultural consideration of Ghanaians which is deemed to support urban sprawl in Ghana (Yeboah, 2000) is one distinguishing factor of the Ghanaian version of sprawl from the version in the United States. From Table 6, public and statutory regulations are deemed to induce urban sprawl in both countries. However, the application or non-application of the public and statutory regulations reveals a distinction as to how urban sprawl occurs in Ghana and the United States. Enforcements of public and statutory regulations appear to lead to sprawl in the U.S while lack of planning or no enforcements equally leads to urban sprawl in Ghana.

From the perspective of the social problems of urban sprawl, the versions in Ghana and U.S. share some similarities (See Table 6). The decline and loss of population at the urban core in U.S and the booming urban core in Ghana serve as one major difference with regard to the social implications of urban sprawl in both countries. Notwithstanding, both countries share a similar phenomenon of movement of people from the urban core

to the peripheries. However, the reasons for the movement differ in both countries (See discussion under social problems dimension). Moreover, the high degree of informality in urban developments in Ghana makes the segregation problems of urban sprawl benign and deviates – to some extent – from the version in the United States.

As seen from Table 6, decentralisation, a defining characteristic of urban sprawl is evident in both Ghana and the United States. However, what differentiates the version of urban sprawl in Ghana – with respect to this dimension – from the version in the U.S. is the fact that in Ghana the decentralisation is mainly population based while in the U.S., it both population and economic based. On the dimension of low density development (See Table 6), the version of urban sprawl in Ghana is very similar to the version in the United States.

Perhaps, what differentiates the version of urban sprawl in Ghana from the one in the U.S. – on this dimension – is what informs the low density developments in both countries (See discussion under the dimension of low density development). Furthermore, from the perspective of accessibility (See Table 6), the version of urban sprawl in Ghana is – to some extent – different from the version in the United States. The informal urban development feeding into traditional settlement systems differentiates the Ghanaian version of urban sprawl from the U.S. on the grounds of accessibility.

All of the two environmental dimensions of urban sprawl (poor aesthetics and open spaces erosion) indicated a “No” deviation from the developed countries’ version of urban sprawl (See Table 6). This means that the environmental effects of urban sprawl are felt and evident in both Ghana and the United States. With respect to the dimension of dynamics (See Table 6), the version of urban sprawl in Ghana appears to achieve a faster development compaction rate in comparison with the version in the United States. The conventional development process in Ghana seems to make the version of urban sprawl in Ghana a transitory phenomenon and – to a large extent – deviates from the U.S. version which is perceived as a stationary phenomenon.

### **CONCLUSIONS AND POLICY IMPLICATIONS OF ANALYSIS**

The above analysis clearly shows that the phenomenon of urban sprawl albeit evident in developing countries (particularly Ghana), does not fit exactly into the developed countries’ scheme of urban sprawl, both in causes and impacts. This requires urban sprawl to be partly dealt with, both in causes and impacts, in a more local or indigenous ways other than addressing it – completely – with policies from developed countries. For

instance, the cause of urban sprawl in Ghana requires a national planning or development strategy to deal with the phenomenon. Such a national strategy must seek to alleviate the unevenness in regional developments so as to deal with the excessive pressures on primate cities which tend to sprawl under such excessive pressures. In that sense, the infrastructure demand and costs under such sprawling conditions in the primate cities could be reduced. Again, the local and cultural considerations of Ghanaians underpinning urban sprawl could be managed through an innovative housing supply scheme. The innovative housing supply scheme shall be in the form of public-private partnership where government policies and directives provide an enabling environment for private delivery of houses other than the uncoordinated decisions of individuals in the construction of homes.

Moreover, the impacts of urban sprawl in Ghana in terms of social problems, economic and population decentralisation, poor accessibility and development dynamics appear to differ (to some extent) from the scheme of impacts in the United States. This deviation is not accidental but can be explained by the adaptive failure of the modernist planning model (Doan and Oduro, 2011). Doan and Oduro (2011) argue that the urbanisation process in African cities is on one hand a reaction against the imposed orderliness of the "Western" planning model and on the other hand, a longing for the density and vibrancy associated with more traditional African urban forms. Hence, dealing with urban sprawl and its associated infrastructure costs in Ghana requires a considerable attention to be paid to the traditional values of Ghanaians. This could reflect in the engagement of local people, for the inclusion of their values, when carrying out formal planning rather than the direct imposition of the "Western" planning model. Again, since urban sprawl is more of a transitory phenomenon in Ghana unlike the U.S., infrastructure development could be carried out in a stepwise manner or in phases to reduce the up-front costs. That will require infrastructure development technologies or systems that lend themselves to future upgrading.

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