

**UNIVERSITY OF GHANA
COLLEGE OF HUMANITIES**

**ANALYSIS OF UNCONTROLLED URBAN GROWTH AND CHALLENGES IN
GHANA: A CASE STUDY OF AWUTU SENYA EAST MUNICIPALITY**

BY

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**THIS DISSERTATION IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON,
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CANDIDATE'S DECLARATION

I, **ANTHONY BLESSED DOBBIN**, hereby declare that except for references made from other scholarly works, which have been appropriately acknowledged, this dissertation titled “**ANALYSIS OF UNCONTROLLED URBAN GROWTH AND CHALLENGES IN GHANA: A CASE STUDY OF AWUTU SENYA EAST MUNICIPALITY**” is the product of my own original work duly conducted under the supervision of **PROFESSOR GEORGE OWUSU** of the Institute of Statistical, Social and Economic Research (ISSER), University of Ghana, Legon. As such, this dissertation has neither been presented in full nor in part anywhere in Ghana or any part of the world for the award of any degree.



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DEDICATION

To Almighty God be all glory for His amazing grace, unending favours and gift of life given me to realise this unique dream. I specially dedicate this work in honour of my late father, W.O.I Peter Blessed Dobbin, for his fatherly love, support, and care throughout the years we spent together. With much affection, I dedicate this work wholeheartedly to my wife, Mrs. Ellen Boakye Danquah Dobbin, for her unflinching love, prayers, and unflinching support during the period of my studies.



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ABSTRACT

Uncontrolled urban growth has triggered monumental expansion of geospatial patterns and the transformation of demographic and socio-economic phenomena, outstripping the capacity of local authorities to plan and manage them. This study explored the causative factors stimulating the unprecedented urban growth in Ghana, and the challenges they pose. The study was premised on the framework of rapid urban growth triad which explicitly explains the components underpinning urban growth namely in-migration, urban natural population increase, and reclassification. Utilising a cross-sectional mixed method design, the study centred on thirteen (13) key informant interviews, and a survey of 385 residents sampled from seven communities in one of Ghana's fastest growing districts, Awutu Senya East Municipality. The multiple nuclei theory was used to explain the dynamisms of the area's growth and the Cochran's Sample Size Formula was used to determine the sample size. Descriptive analytical tools including percentages, crosstabs, tables and charts were used to show frequency of distribution of variables, relationships and variability of data. The results showed that the municipal area has undergone rapid urban growth primarily driven by in-migration from across Ghana and outside. Migrants constitute 94% of the population, and six of Ghana's regions with relatively low incidence of poverty contribute 70.9% of the migration. The study establishes a significant relationship between the municipality's growth and its proximity to Accra. Among the most pressing urban growth challenges identified were noise, sanitation, air pollution and unemployment. Less than 50% of residents were aware of the climate change impacts of uncontrolled urban growth. Ultimately, the study recommends to government a multifaceted and evidenced-based approaches involving innovative urban management focusing on urban resilience and sustainability by building capacity of district assemblies technologically and financially, and rural development through job creation and infrastructural upgrade.

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LIST OF ABBREVIATIONS

APC	-	Africa Policy Circle
ASEM	-	Awutu Senya East Municipality
ASEMA	-	Awutu Senya East Municipal Assembly
CBD	-	Central Business District
CILSS	-	Comité Permanent Inter-états de Lutte contre la Sécheresse dans le Sahel
CSIS	-	Centre for Strategic and International Studies
GBC	-	Ghana Broadcasting Corporation
GDP	-	Gross Domestic Product
GHG	-	Greenhouse Gas
GIS	-	Geographic Information Systems
GSS	-	Ghana Statistical Service
GWCL	-	Ghana Water Company Limited
ILO	-	International Labour Organisation
IOM	-	International Organisation for Migration
IPCC	-	Intergovernmental Panel on Climate Change
KI	-	Key Informant
LULCC	-	Land Use Land Cover Change
LUSPA	-	Land Use and Spatial Planning Authority
MDAs	-	Ministries, Departments and Agencies
MLGRD	-	Ministry of Local Government and Rural Development
MMDAs	-	Metropolitan, Municipal and District Assemblies
MPT	-	Minimum Population Threshold

NDPC	-	National Development Planning Commission
NUA	-	New Urban Agenda
NUP	-	National Urban Policy
PHC	-	Population and Housing Census
SDG	-	Sustainable Development Goals
SSA	-	Sub-Saharan Africa
SWAC	-	Sahel and West Africa Club
UIA	-	Union of International Associations
UN DESA	-	United Nations Department of Economic and Social Affairs
UNCTAD	-	United Nations Conference on Trade and Development
UNDP	-	United Nations Development Programme
UNEP	-	United Nations Environment Programme
UNICEF	-	United Nations International Children's Emergency Fund
UNSC	-	United Nations Statistical Commission
UNSD	-	United Nations Statistical Division
WEF	-	World Economic Forum
WHO	-	World Health Organisation



CHAPTER ONE

INTRODUCTION

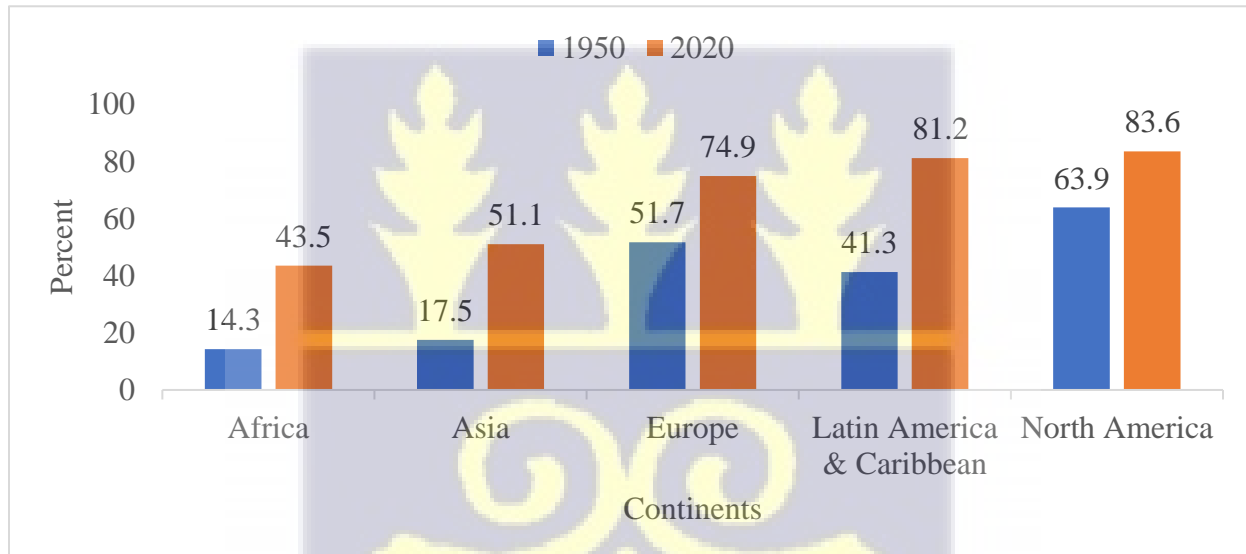
1.1 BACKGROUND TO THE RESEARCH

There is no disagreement that globalisation, technological advancement and trade liberalisation have impacted on the rapid acceleration of the pace of economic growth in many urban centres globally. As trade openness and economic growth speed up, population go through a cycle of rapid change from rural to urban (Ameer and Munir, 2016). As such, the increase and agglomeration of industrial and commercial activities in cities are regarded as critical factors for people migrating out of the less vibrant rural economies to have better opportunities and get absorbed into the more modern and flourishing urban sectors. Thereby inducing the rate of urban growth. Likewise, it is agreed that the multifunctional roles that cities play as centres of economic, political and social activities, coupled with their integration into the world economic system, and the rise in indigenous businesses have culminated into huge inflows of both domestic and transnational investments that are accelerating the spatial restructuring of population concentration, landuse and economic activities in large cities through the process of urbanisation (Manukhina and Prykina, 2023).

Across the world, a collective growth of population, economic activities and built-up area of any urban centre is deemed as a good indicator of development. Despite that, the spontaneous manner with which urban areas build up and sprawl, and the rapidity of population increase in recent years are a major concern for all (MLGRD, 2012). Aithal and Ramachandra (2020) indicate that the metamorphosis of urban areas into centres of high economic and sociocultural activities, where there is less need for agricultural labour due to mechanisation processes have resulted in a rapid movement of rural people to urban centres. This has led to an uninterrupted and swift change in urban growth patterns through the terrestrial activities of inhabitants. These unregulated

movements and rapid growth of urban areas climax into inequalities, social exclusion, excessive environmental noise pollution, weak governance mechanism and stagnation of urban productivity (MLGRD, 2012; Inter-American Development Bank, 2021). As shown in Figure 1.1, the developed and underdeveloped world are both experiencing unprecedented rates of urban growth in history (United Nations Population Fund, 2022), and at different scales. The world’s urban population has risen speedily from 750 million in 1950 to 4.22 billion in 2018 (Kundu & Pandey, 2020); and it is projected to increase by 1.5% to 6 billion by 2045 (World Bank, 2022a).

Figure 1.1: Then and now: Urban population in 1950 and 2020 by continent



Source: Adapted from United Nations Population Division (2020)

According to UN (2018), 55 percent of the population of the globe live in urban centres, and it is estimated to grow to 68 percent by 2050, while the total global population increase will add on an extra 2.5 billion people to cities in the same period. It is expected that 90% of this growth in urban population of the world between 2021 and 2050 will occur in the Global South, mainly in Asia and Africa (United Nations Department of Economic and Social Affairs [UN DESA], 2018). Furthermore, the proportion of Africa’s urban inhabitants is projected to increase from 36 percent

in 2010 to 50% and 60% by 2030 and 2050 respectively (African Development Bank [AfDB], 2012). Hence, sustainable development challenges will intensify in these urban centres where the pace of urbanisation is so rapid and usually not planned (Nagendra et al., 2018).

In the developing world, Africa has witnessed the greatest urban growth during the last 20 years at a rate of 3.5% per year; and it is projected that between 2010 and 2025, major African cities will constitute up to 85% of the population (AfDB, 2012). Moreover, it is alluded that half of the total population of Africa dwelt in one of 7,617 urban agglomerations as of 2015, and it is projected that by 2050, African cities will accommodate an additional 950 million people (OECD and SWAC, 2020). Additionally, CSIS (2018) maintains that Sub-Saharan Africa (SSA) is undergoing an annual urban population growth rate of 4.1 percent, in comparison to the global rate of 2.0 percent. A major aspect of this swift rise in population is that most SSA cities face roadblocks that restrain them from creating job opportunities in industry, driving structural transformation, boosting productivity and contributing to national economic development (Madden and Gutman, 2020).

Ghana has experienced major shifts in its demographic dynamics. Urban population continue to grow in major cities such as Accra and Kumasi, while erstwhile smaller towns such Kasoa and Ashaiman, have grown rapidly into municipalities over time. Owusu and Yankson (2017) noticed that between 1984 and 2010, urban population in Ghana multiplied by about 3.5 times, leading to high population densities in cities and towns. Over the past 30years, Ghana's urban dwellers have more than tripled, increasing from 4 million to almost 14 million persons (Crookes and Ijjasz-Vasquez, 2015). The 2021 Population and Housing Census (PHC) points out that, urban population increased from 12,545,229 (50.9%) in 2010 to 17,472,530 (56.7%) in 2021 (Ghana Statistical Service [GSS], 2021). Currently, Ghana has an urban population growth rate of 3.2% (World Bank,

2022b). However, as a result of improper planning and investment, there is a sharp divide in urban settlements, as slums inhabited by poor and low skilled people coexist with residential areas inhabited by the upper and middle class (Owusu and Oteng-Ababio, 2014).

Since its creation, the Awutu Senya East Municipality (ASEM) has become one of the most densely populated and fastest growing peri-urban municipalities in Ghana as it enjoys enormous influx of people. For instance, the population of the municipal capital, Kasoa, has grown rapidly during the past 50 years. It grew from 863 in 1970 to 2,597 in 1984, to 34,719 in 2000 (GSS, 2002), to a further 69,384 in 2010 (GSS, 2013) and 135,000 in 2022 (GBC, 2022). As a result, the area was reclassified as a municipal area for effective governance in 2012 (GSS, 2014). The effect is that the unplanned nature of ASEM's growth poses serious sustainable development challenges to the municipality.

These trajectories of rapid but unplanned growth of urban areas in Ghana, SSA and Asia have profound implications for climate change, urban governance, land use, service delivery and economic activities. Zhang (2021) warns that with the popularisation of spatial sprawl, urban cankers namely reckless landuse systems, traffic jam and environmental pollution would gradually become a common phenomenon in the process of urban growth. Similarly, Kuddus et al. (2020) enumerate major health problems that originate from rapid urban growth including poor nutrition, communicable diseases, pollution related diseases, poor housing and sanitation conditions. Thus, rapid urban growth that is not strategically planned and managed poses severe threats to the population and environment. United Nations Development Programme (UNDP, 2017) asserts that over one billion people reside in houses that are beneath minimum standards of comfort in cities, and about 700 million urban slum inhabitants lack sufficient sanitation. To this, Yiran et al. (2020) expound that rapid urban growth in SSA has serious implications for attaining the Sustainable

Development Goals (SDGs), particularly Goal 11 that focuses on developing sustainable communities, cities; affordable and accessible public housing schemes.

Through various field trips, experiential observation and interviews conducted with residents of ASEM, the issues of unplanned urban sprawl and rapid population growth were brought to the fore. It is against this background that this study finds it more imperative to investigate the drivers and challenges of uncontrolled urban growth in Ghana, with emphasis on Awutu Senya East Municipality. The research examines in detail the critical factors responsible for the rapid growth of population, economic activities and physical sprawl of the municipality, as well as the threats this swift transformation have on the society, economy, climate, livelihoods, environment and governance. The study then proposes based on its findings; strategies that could effectively help to mitigate the negativities imposed on ASEM due to its uncontrolled growth.

1.2 PROBLEM STATEMENT

The uncontrolled growth of urban areas has increasingly become a global issue of great concern to governments, development practitioners and donor agencies over the last decade. Three main reasons account for this. First, urban areas serve as centres of production and economic growth, contributing over 80 percent of the global gross domestic product (GDP) as most industrial, administrative, commercial and trading activities are concentrated in cities (World Bank, 2022a). Second, the high concentration of people within a limited area due to in-migration and natural increase, and its associated boom in economic activities in urban areas have serious implications for biodiversity, landuse systems, spatial expansion and national development in general. Finally, the impacts of climate change and unplanned urban growth are converging in hazardous manner that has disastrous implications on livelihoods, infrastructure and sustainable development. According to World Economic Forum (WEF, 2022), urban centres accounted for 72% of global

greenhouse gas (GHG) emissions in 2020, an increase from 62% in 2015; and global warming is predicted to reach 1.5°C between 2030 and 2052, and approximately 3°C in 2100. Thus, millions of urban inhabitants will likely be impacted on by intense precipitation, inland flooding, rising sea levels, recurring storms, and more periods of severe heat and cold (UN Habitat, 2022).

United Nations Conference on Trade and Development (UNCTAD, 2018) indicates that the enormous speed that cities in Africa are growing is connected to major development trends, notably rising population and economic growth, increasing migration from hinterlands to cities, and the youth bulge. The situation is seen as a major threat to development as cities in SSA continue to grow in an unorganised manner. World Bank (2021) opines that, the most effective urban areas are those that interlink their growth to economic development and sustains it with comprehensive plans and necessary investments which help to avoid unrestrained growth. However, this is not the case in most urban areas of the developing world. The nonexistence of prudent urban planning creates precarious conditions for daily life, obstructs access to employment and education, as well as cultural opportunities (de Souza et al., 2018). As a result, Haase et al. (2018) expound that the challenges urban areas grapple with are diverse and intertwine, and prominently include poverty, unemployment, crime, security, health issues, sanitation, congestion, senescent infrastructure, slums and increased demand for low-priced housing.

Rapid urban growth that is not accompanied with a corresponding provision of social infrastructure to match the needs of the increasing population generates development and sustainability gaps. This puts incessant pressure on the limited resources and amenities such as lands, water supply, hospitals, schools and sanitation in urban areas. Accordingly, UN DESA (2020) maintains that rapid growth of many cities has culminated into insufficient provision of basic public goods including health and education; and a failure to guarantee a minimum quality of life for all urban

dwellers. Also, very often, vast number of people arrive in cities demanding jobs, energy, housing, public transit, potable water, basic education and primary healthcare which usually tend to stretch already underresourced city authorities beyond their limits (Africa Policy Circle [APC], 2020). Hence, WEF (2015) laments the daunting challenges of health, climate change, basic facilities and social stability associated with rapid urban growth.

Uncontrolled urban growth puts enormous pressure on land and environmental resources through urban spatial expansion. Considering the unregulated nature of urban expansion patterns in the past, and presently in the Global South (Agyemang et al., 2019), possible urban expansion in the future may inflict serious negative effects on environmentally sensitive regions (Mohammed and Worku, 2020). It is evident therefore that the expansion of urban land usage surpasses population growth by over fifty percent, which is anticipated to add 1.2 million kilometres square of new urban built-up zone to the world in the next thirty years (World Bank, 2022a). Similarly, projections by Gao and O'Neil (2020) show that the quantity of urban land on earth by 2100 could range between about 1.1 million and 3.6 million kilometres square, which is about 1.8 to 5.9 times the global total of urban area of about 600,000 kilometres square in 2000. This has serious implications for agriculture production and the environment.

Regarding urban population growth, United Nations Statistics Division (UNSD, 2022) laments that the percentage of worldwide urban slum inhabitants grew by 23.5 percent in 2018; in absolute numbers, over 1 billion persons lived in unstructured settlements, of which 80 percent is ascribed to Eastern and South-Eastern Asia (370 million), SSA (238 million) and Central and Southern Asia (227 million). The repercussion of this growth in population is that a projected 3 billion people would need sufficient and affordable housing by 2030 in cities. As a matter of fact, the increasing number of slum inhabitants signifies that population growth has outpaced housing availability.

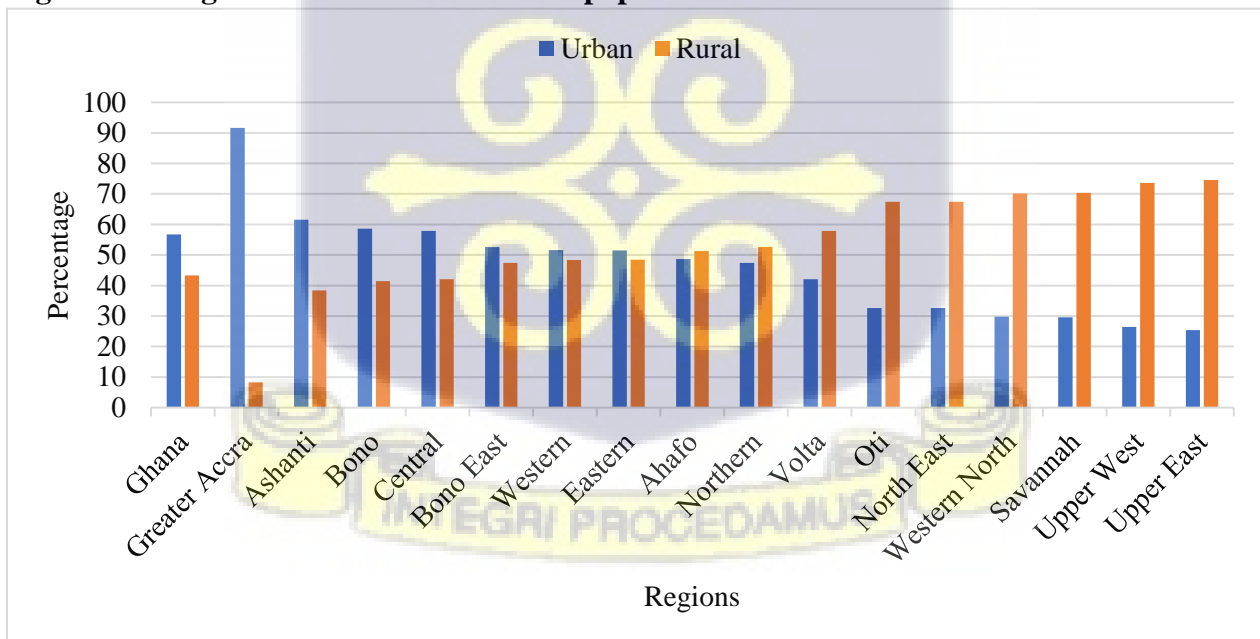
Mitlin and Satterthwaite (2013) posit that one out of seven of the world's total population live in abject poverty within cities in Africa, Asia and South America, mostly in overcrowded informal settlements with inadequate sanitation, healthcare, education facilities and insufficient water. Thus, urban poverty has become rampant in major cities across the developing world, revealing itself in the form of slums and all the key signs of overcrowded living such as congestion, joblessness, abject disparities, absence of community and social interconnectedness coupled with detrimental social cankers such as crime, violence, insufficient basic social amenities and low living standards (UN Habitat, 2016). Further projections also hint that 40 percent of the global urban growth is occurring in slums and this is aggravating socio-economic inequalities and causing unsanitary situations which influence the spread of disease (WEF, 2015). To adapt to this rapid growth in urban areas and offset these problems, UNDP (2017) estimates that \$57 trillion in infrastructural investment globally is needed by 2030. Unplanned urban growth will also impact on nutritional activities. Szabo (2016) believes that rapid urban growth will have crucial effect on food use. Inhabitants of urban areas are vulnerable to volatile food prices and are therefore usually pressured to reduce other pressing expenses to meet their basic nutritional needs.

In Africa, urban growth is concentrated in unorganised and improperly laid out settlements with acute shortage of critical amenities and necessary services (UNDP, 2017). The aggregate rate of population concentration in urban centres of the continent is estimated to grow from 40% in 2015 to 56% by 2050 (UNCTAD, 2018). Projecting that Africa will have an urban population of 1.48 billion by 2050, Manuh and Yemeru (2019) avouch that how urbanisation is planned and handled now will be a turning point for the quality of growth within the continent for the ensuing years, and particularly for the realisation of structural change by means of industrialisation. However, they argue that the present trajectory poses serious dangers to the quality of growth. Corroborating

this, APC (2020) notes that a surging demand for living space in cities use up arable lands and green zones which leave huge burden on the environment including polluting water sources and endangering air quality. They also point out that, in most expanding urban areas, spiking crime rates have meant that rapid urban growth has become a security issue as residents live in fear and panic for their personal safety as well as their property. Justifying this, Owusu (2016) notes a positive relationship among poverty, urban growth, economic growth and urban crime in Africa.

In Ghana, existing data shows that urbanised areas are rapidly increasing in size and population, and unauthorised development is incrementally becoming a normality. Presently, 56.7% of Ghana’s population live in urban areas (GSS, 2021) and it is predicted to reach 72.3 percent by 2050 (UN Habitat, 2022). As illustrated in figure 1.2., seven regions including the Central Region where ASEM is situated, have more urban than rural population. This reflects regional disparities in socio-economic development that influence rural-urban migration patterns in Ghana.

Figure 1.2: Regional share of urban-rural population in Ghana in 2021



Source: Adapted from PHC 2021 (GSS, 2021)

Currently in Ghana, rapid urban growth is forcing farmers to relocate to rural areas as lands initially meant for agricultural production are being converted to urban purposes (Abass et al., 2018). CILSS (2016) indicates that Ghana's rapid population growth which reflects the rapid expansion of settlements land cover has expanded urban areas from 1,460 sq. km in 1975 to 2,560 sq. km in 2000 and to 3,830 sq. km in 2013. Besides, two out of every five city dwellers in Ghana, 37.9%, reside in habitations that can be classed as slums (UN, 2017). Rapid urban growth negatively affects sanitation and health. Appiah Effah et al. (2019) claim that sanitation coverage in urban areas of Ghana is very low with just 25% of residents having access to basic sanitation, which is strongly connected to rising disease burdens and related costs (Berendes et al., 2018), in cities.

The Awutu Senya East Municipality has experienced a significant surge in its population over the past three decades. This has led to massive spatial expansion of built-up areas and growth in trading activities. GSS (2021) indicates that the municipality's inhabitants increased from 108,422 in 2010 to 236,527 in 2021, an annual population change of 7.5%. In a sharp contrast, a study by French (2022) estimates ASEM's population in 2022 as 500,000. The municipality's swift transformation was highly induced by its proximity to Accra, the national capital, enabling it to enjoy tremendous population spillover. The huge informal sector activities, and the relatively low cost of housing act as a magnet that attracts large number of people from within the country and the West Africa subregion into the municipality with the sole aim of enjoying enhanced livelihoods.

These movements into ASEM for socio-economic purposes have subsequently resulted in excessive developmental challenges. First, parts of ASEM including Ofaakor, Amusukope, Bentum, Gada, Zakarikope and Opeikuma face high levels of degraded environment and are most vulnerable to the estimated impacts of climate change due to many bad landuse practices undertaken by individuals and companies over the years for economic benefits (Awutu Senya East

Municipal Assembly [ASEMA], 2019). Again, due to the extreme poverty levels in these communities, there is high reliance on charcoal and tree cutting for fuel wood leading to the high depletion of water bodies and plant cover.

Second, climate change related health risks such as respiratory issues from the release of toxic substances in the air, mainly carbon dioxide emissions from vehicular congestion, are predominant in Kasoa and Akweley, which are key settlements within the municipality (ASEMA, 2019). Climate change is a bane to livelihoods and properties in the municipality and threatens food security due to decline in food production as a result of massive deforestation resulting in the erosion of soil nutrients in farming areas such as Gada, Ofaakor, Bentum and Zakarikope (ASEMA, 2019). ASEM faces serious landuse changes emanating from the rapid conversion of arable lands for residential purposes. Doe et al. (2022) posit that the need to accommodate the growing population has influenced rapid landuse and land cover change (LULCC) at spatial and transient scales. Thus, the enormous urban development has impacted on landuse changes and vegetation through built-up areas encroaching wetlands, flood and earthquake prone zones of the municipality (Doe et al., 2022).

Third, the growth in population of ASEM puts intense pressure on the limited social infrastructure such as roads, schools, hospitals and the demand for housing, which lead to the development of slums in core zones. Sanitation and waste are major challenges the municipality grapples with as they threaten the health and livelihoods of residents. Inadequate sanitation causes outbreak of diseases, such as cholera, which affect the wellbeing of the human resources. Also, residents indiscriminately dump wastes which choke gutters and cause floods during rainy seasons, particularly in the central business district (CBD). These impede urban governance as they require huge financial capacity of local authorities to remedy. Financial data of ASEMA indicates that,

out of GHC787,171.53 needed for sanitation activities, only GHC207,736.88 (26.39%) of the total budget was used in the municipality (ASEMA, 2022). Also, in search of means of economic livelihoods, unemployed youth sometimes travel to Accra to do menial jobs to survive (ASEMA, 2022). Additionally, ASEM is plagued with lots of land disputes due to encroachment and conversion of adjoining farmlands into urban needs. This has led to numerous land guard activities. Furthermore, a myriad of factors arising from the unplanned growth of ASEM such as improper spatial planning, inadequate storm drains, rising cost of rent, irregular water supply and noise compound the problems of the area. More seriously, the municipality has become a hideout for criminals (Arko, 2021; Bonney, 2021) as a result of inefficiencies in law enforcement and institutional capacity.

Remedying these challenges to make cities more suitable for living come with huge financial burden. Today's fastest-growing urban areas need modern tools and approaches that focus on understanding the new dimensions of demographic and economic change they face in order to succeed. This requires innovative urban planning, technological aptitude and governance systems or paradigms which permit cities to be more sustainable (Berawi, 2018).

It is widely recognised that spatial planning that employs geographic information systems (GIS) has supported numerous nations to design and carry out efficient urban growth management stratagems. Acheampong (2019) avers that these urban growth management policies have countless mechanisms and instruments that are capable of monitoring and analysing physical developments and their alteration within space. In addition, UNCTAD (2022) asserts that urban development issues including planning and control of new population settlements can be solved using satellites. Eldridge (2019) argues that administering the negative consequences and maximising the gains of rapid urban growth require central governments, local authorities, civil

societies and development agencies to evaluate interrelated economic, financial, political, cultural and technical factors.

The convergence between economic and population growth on one side, and rapid urban growth on the other are critical points worth considering. Strenuous urban challenges persist, so are practical measures available to manage them. These call for new mindsets, plans and strategies by policy makers, that have the capacity to make urban growth more sustainable, inclusive, and equitable, benefiting not only the vulnerable but all. Notwithstanding the constraints associated with rapid urban growth, urban areas in general offer significant opportunities for economic growth and human development. It is in this regard that a study that investigates the challenges of uncontrolled urban growth is relevant and a worthy course.

1.3 RESEARCH QUESTIONS

The overall research question guiding the study is: What are the implications of uncontrolled urban growth on the development of Awutu Senya East Municipality. The specific questions were:

1. How do residents perceive and understand the concept of uncontrolled urban growth?
2. What are residents' perceptions of the main drivers responsible for the uncontrolled growth of ASEM?
3. Which major challenges have been imposed on ASEM by its unplanned growth?
4. In what ways can the rapid growth of ASEM be managed?

1.4 RESEARCH OBJECTIVES

Generally, the study sought to investigate the implications of uncontrolled urban growth on the development of ASEM. The specific research objectives were:

1. To find out how residents perceive and understand the concept of uncontrolled urban growth.

2. To analyse residents' perception of the main drivers responsible for the uncontrolled growth of ASEM.
3. To assess the major challenges imposed on ASEM by its unplanned growth.
4. To examine how the rapid growth of ASEM can be managed.

1.5 JUSTIFICATION OF THE STUDY

1.5.1 Policy and Practice

The research is expected to improve the quality of life of urban dwellers by addressing a myriad of pertinent urban issues including climate change, unemployment, slum living and pollution that affect livelihoods and inhibit urban development at the local, national and global levels. The work further broadens our understanding and awareness of the threats the unplanned growth of cities poses to a country's economic development, national security and environmental resources; and why there is an urgent need for pragmatic policies and stringent plans to mitigate the trend. As a way of contributing to the formulation of more sustainable and equitable policies that increase urban productivity, ensure proper spatial planning and poverty reduction, the study proffered practical remedies that require well-informed and evidence-based urban economic and spatial planning. Moreover, the study provides a new direction for urban growth management. It serves as a reference document to guide urban planners, governments, local authorities, development agencies and non-governmental organisations in the design of their strategic urban plans.

1.5.2 Research and Academic

The study provides up-to-date data and verifiable sources of information that would facilitate learning and support further research works on the topic. It adds to knowledge in three key aspects: First, it evaluated the main drivers of urban growth namely urban natural population increase, rural-urban migration and reclassification of urban areas. Second, it analysed the threats associated

with the rapid growth of urban areas. Third, it proposed comprehensive guidelines to addressing the growth-driven challenges of cities. In sum, the conclusions drawn from the study fill a gap that provides new dataset for efficient planning and implementation of population and socio-economic policies and programmes in ASEM, other urban areas in Ghana and the world at large.

1.6 ORGANISATION OF THE STUDY

In terms of structure, the work was organised and presented in five broad chapters, each having subsections. Each chapter had an introduction at the beginning and a chapter summary that concluded it. Chapter One provided the background to the study, problem statement and delineated the research questions that the work sought to find answers to; and the objectives that the study aimed at achieving. The chapter concluded with the justification for undertaking the study and how the research was organised, and its contents arranged. Chapter Two is the “Literature Review”. It presented an in-depth discussion and evaluation of related issues about uncontrolled urban growth on three broad sections namely conceptual review, empirical review and theoretical review. Included in the chapter was a conceptual framework that enabled the researcher to explain the relationship among the study’s concepts. Gaps and grey areas identified in literature were also highlighted. Chapter Three deals with the “Study Area and Methodology”. The chapter gives a detailed political, geographic, social and economic background of the study area. It also delved into the study design, study population, sample size and sampling technique, pre-test activities, testing validity and reliability, and the methods of data collection and analysis. Chapter Four is the “Results and Discussions”. It presented the analysis and discussions of the findings of the research. Finally, Chapter Five covered the “Summary of Findings, Conclusions and Recommendations”.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter reviews related academic literature on uncontrolled urban growth. The purpose is to examine previous works on the topic to enable the study compare or contrast the research findings. The chapter commences with a review of recurring concepts such as urban area, urban growth and uncontrolled urban growth. This is followed by an evaluation of the components or drivers of urban growth. The study then assesses the challenges posed by unplanned urban growth on cities. In addition, the policy and legal framework on urban development in Ghana is also reviewed. Finally, the study's theory and conceptual framework are discussed in detail.

2.2 URBAN AREA

The concept of urban area is frequently used but not definitely defined. Hence, it has assumed diverse meanings from different criteria. There are some generalised definitions of urban area which are derived chiefly from indicators about population, housing density and economic profile of a place (Breckenkamp et al., 2017). For this study, the definition of an urban area has been given based on country specific criteria. In Ghana, urban areas are defined as settlements with a population threshold of 5,000 or more (GSS, 2014). However, the use of this administrative approach has been found to be inadequate considering that urban areas are influenced by highly diverse, heterogeneous and multiplicity of factors (Akubia and Yankson, 2020). The study expatiates three methodologies used for classifying urban areas. The minimum population threshold (MPT) is the most widely used method to classify urban areas but varies among countries. European Union (2021) indicates that out of 103 countries that use MPT to define urban areas, 84 use a threshold of 5,000 residents, while others use lesser or higher figures. For example,

the threshold is as low as 200 in Denmark and Sweden; and as high as 50,000 in Japan, or even 100,000 in China (Dijkstra et al., 2020). Therefore, Dijkstra et al. (2020) assert that realistic comparisons on the SDG indicators cannot be made for all urban and rural settlements across countries. The degree of urbanisation is a global comparability approach adopted by UN Statistical Commission (2020) to harmonise the criteria for classifying settlements worldwide. It identifies three classes of settlements namely cities, towns and rural areas. Cities possess a population of not less than 50,000 and densities of more than 1,500 residents per kilometre; towns are settlements of at least 5,000 people with a density of at least 300 persons per kilometre, while rural areas comprise low-density areas. The hyper-diversity concept is a multi-dimensional approach to defining urban areas and reflects the evolving heterogeneity of cities (Korcelli-Olejniczak, 2017). Tasan-Kok et al. (2013) describe hyper-diversity as “intense diversification of the population in economic, social and ethnic terms, but also with respect to lifestyles, attitudes and activities”. The study concurs with Schmid et al. (2018) that urban centres have become extremely dynamic with respect to socio-economic activities, demographic composition, functionality, spatial structures, lifestyle, cultures and employment types.

2.3 URBAN GROWTH

Meier zu Selhausen (2022) defines urban growth as “the percentage change in the total number of people living in urban areas from year to year”. This reflects the rise in the absolute number of persons residing in a delineated urban area (International Organisation for Migration [IOM], 2015). Additionally, urban growth depicts increases in the population, number of existing housing units and the spatial expansion of the urban area (Ottensmann, 2018). This definition considers the development of new built-up zones within the rural areas on the urban fringes that leads to the reclassification of those places as urban. Vianas et al. (2019) indicate that urban growth includes

spatial expansion, population increase and economic growth. As a well-known fact, properly managed urban growth generates positive externalities when many industries, businesses or households are sited near each other (Wu, 2019; Meier zu Selhausen, 2020). The growth of cities in the developing world into economic hubs have been swift. It is estimated that 35 percent of global urban growth between 2018 and 2050 will occur in China, Nigeria and India due to rapidly rising population (UN DESA, 2018; WEF, 2019). The urban population growth is increasing on daily basis. It was projected to increase at approximately 1.84% annually from 2015 to 2020; 1.63% yearly between 2020 and 2025, and 1.44% per annum between 2025 and 2030 (Union of International Associations [UIA], 2021). As seen in Table 2.1, urban population growth in Asia and Africa have remarkably risen over the past 50 years, depicting a rapid rural-urban shift due to imbalances in development across the two sectors.

Table 2.1: Urban population growth by geographic zones, 1950-2050

Urban population growth										
Geographic regions	Population (Millions)					Percentage share of urban population				
	1950	1990	2018	2030	2050	1950	1990	2018	2030	2050
Africa	33	200	548	824	1489	4.3	8.7	13.0	15.9	22.3
Asia	246	1040	2266	2802	3479	32.8	45.4	53.7	54.2	52.1
Europe	284	505	553	573	599	37.8	22.0	13.1	11.1	9.0
Latin America/Caribbean	70	315	526	600	685	9.3	13.8	12.5	11.6	10.3
North America	110	211	299	335	387	14.7	9.2	7.1	6.5	5.8
Oceania	8	19	28	33	41	1.1	0.8	0.7	0.6	0.6

Source: Adapted from UN DESA (2018)

Ghana's urban growth rate between 2015 and 2020 was 4.2% (UN-Habitat 2022) and urban population growth was 3.2% in 2021 (World Bank, 2022b). The situational analysis of ASEM's urban growth proves its population has grown rapidly over the past 30 years, which has intensified

economic activities, especially trading, and expansion of urban spatial built-up area. Comprehending how and why these urban phenomena multiply over time is key to this study.

2.4 UNCONTROLLED URBAN GROWTH

Urban growth in most developing countries including Ghana, have been spontaneous (Ligtvoet et al., 2018; World Bank, 2019). Hence, the growth of cities is not planned and happen without the corresponding essential social facilities to make living appreciable. This spontaneity and unplanned nature of urban growth reflect rapid increases in urban population, economic activities, and extensive land use and physical built-up expansion that have negative implications for development. This nonstop growth of cities births several ecological, social, governance and economic challenges which have been noticed in ASEM through experiential observation. Ribeiro (2019) defines unplanned urban development as the emergence of informal settlements that are deficient in necessary social facilities, basic services and become a risk to the people because of non-existing urban laws and planning standards. The study therefore identifies among a variety of factors the ineffective urban governance and weak decentralised systems as inducing uncontrolled growth of cities. In the context of this study, the definition of uncontrolled urban growth is operationalised to mean the swift increases in the population of an urban area in relation to its existing resources, and the unplanned landuse activities, which alter the natural environment and makes socio-economic development unsustainable over a period.

2.5 COMPONENTS OF URBAN GROWTH

This section reviews the main drivers of urban growth in Ghana, SSA and the world at large and their overall implications. The components of urban growth are the three processes driving the overall urban increment. These are urban natural population increase, rural to urban migration and reclassification of urban areas.

2.5.1 URBAN NATURAL POPULATION INCREASE

Natural population growth is highly dependent on the birth and death rate prevailing in an urban area. In analysing the rate of growth in a city, the net natural increase is used. The net natural increase explains the difference between birth rate and the death rate within a period (National Institute of Statistics and Economic Studies, 2020). Therefore, a positive net natural increase such that birth rates are higher than death rates will increase urban population growth. As a result, various studies have recognised natural growth as the main cause of urban growth in developing countries (Lerch, 2014; Awumbila, 2017).

2.5.1.1 BIRTH RATE AND FERTILITY RATE

The birth rate of a geographical area refers to the number of live births that occur among its population within a specific year, per 1,000 mid-year total population of that same area within the same year (WHO, 2022). In contrast, the fertility rate of a place is the total number of births in a year per 1,000 women of childbearing age within a population (WEF, 2022). That is, the birth rate is induced by the fertility status of women in an area. Ghana's urban fertility rate in 2014 was 3.40 (Agbaglo et al., 2022). GSS (2014) states that the total fertility rate for ASEM is 3.0 and the general fertility rate is 89.3 births per 1000 women between 15 and 49 years, while the crude birth rate for the municipality is 25.4 per 1000 people. Global trends indicates that, average births by a woman have steadily reduced from 5 in 1950 to 2.3 in 2021 (Ritchie et al., 2022). However, Hassan and Mahabir (2018) argue that developing countries have experienced enormous population growth resulting from high fertility rates and poor living conditions.

A major feature of birth or fertility rate within urban spaces in SSA is that it is differentiated by social class or socio-economic status of inhabitants which reflects the settlement they live in. Birth rates are generally low among the educated middle- and upper-class women (Bongaarts et al.,

2016) who mostly reside in the prime and deliberately planned zones of cities. Slums in developing countries are characterised by the presence of huge number of youthful population due to informal sector job opportunities and affordable housing (Mahabir et al., 2016). In a study investigating the effects of slums on fertility rates in SSA and Middle East and North Africa, Hassan and Mahabir (2018) found a long-run positive relationship between the two concepts. They identified maternal educational level, contraceptive prevalence, child labour and level of income as the key drivers of high fertility in slums and urban centre in general, reflecting the social, religious, and economic conditions. Lutz (2014) asserts that women and girls who spend more years in school educating tend to have low fertility compared to the least educated ones who are dominant in the informal sectors. In essence, less and shorter education of women can lead to early marriage, early childbearing and preference for large family sizes (KC and Lutz, 2017). Family planning and contraceptive use in urban areas have not received the prominence they need compared to other subfields of health in SSA (Galea et al., 2019).

Hence, there is evidence of rising fertility rates in some African cities that may potentially lead to rapid urban growth rates in the ensuing years (Duminy et al., 2021). Evidence on ground show that many slum inhabitants in developing countries encounter the most obstacles to accessing family planning services (Atuahene et al., 2017) due to low incomes and levels of education. Birth rate is higher in SSA, especially in urban slums because children serve as investment that provide diverse forms of labour services to supplement family income (Angko et al., 2022). The review of literature ascertained that related factors such as patriarchal social structure (Mjaaland, 2018), high social status accorded polygynous men (Korotayev et al., 2016) and religious influences (Agadjanian and Yabiku, 2014) are the reasons for high fertility rates in SSA, particularly in cities.

2.5.1.2 DEATH RATE

Inhabitants of urban areas comparably have access to better health facilities and basic incomes which enable them to enjoy a better quality of life. As a result, urban areas proportionally experience low death rates leading to high population growth and urban growth. In a comparative study by Curtin and Spencer (2021) on trends in death rates in urban and rural areas of United States between 1999-2019, they noticed a decline in age-adjusted death rates in urban centres from 865.1 to 693.4 per 100,000 people, low sex-based deaths, and low rates for the 10 leading causes of death in urban areas than rural areas. According to the World Bank (2022c) death rate, also known as mortality rate, is the total number of deaths recorded during the year, as a ratio of 1,000 population projected at midyear. Stated differently, death rate is the total number of people that die within an urban area within a year. GSS (2014) pegs the crude death rate for ASEM at 2.5 per 1,000 population. Previous studies by WHO (2020) have indicated that non-communicable diseases accounted for 74% of deaths globally in 2019, while communicable, maternal, neonatal and nutrition; and injuries accounted for the remaining 24%. However, the existence of numerous healthcare facilities including specialist hospitals, clinics, polyclinics, ambulance services and pharmacies in urban areas, and good nutritional habits have ensured these medical issues are handled promptly and reduced to the barest minimum. Also, increases in public health programmes and the spread of education in cities have effectively reduced superstitious beliefs linked to health issues. What is more, advances in electronic technology in cities enable residents to have access to medical care from home through online services. These have increased well-being among urban residents. Abir et al. (2015) state that effective childhood disease management, enhanced healthcare programmes namely immunisation and supply of vitamin supplements are crucial factors responsible for the decline in under-5 deaths in cities. The result is that urban areas in

Ghana experience low mortality rates compared to birth rates, thereby increasing the population growth.

2.5.2 RURAL-URBAN MIGRATION

Rural-urban migration is both a socio-economic process and a spatial phenomenon that involves the drifting of population from villages and deprived communities to city centres either on permanent or semi-permanent basis. A study by Alarima (2018) points out that the phenomenon occurs from the drifting of people from rural to urban enclaves to look for opportunities because of the disparities in resources and better quality of life prevailing in cities. The industrial revolution in Europe and North America triggered rural-urban migration and intensely stimulated two groundlaying processes including the diversification of employment from agrarian to factories, mills, shipping, textile, banking, and railroads; and the rapid growth of urban areas into hubs of economic growth (Friedlander and Okun, 2022). Due to the crucial role internal migration played in enhancing economic productivity, the concept became the basis for understanding the processes of economic development in developing countries in the 1950s-1970s (Lewis, 1954; Rani and Fei, 1961; Harris and Todaro, 1970). In the developing world, a major outcome of rural-urban migration is urbanisation and urban growth (Awumbila et al., 2014; Awumbila, 2017). Presently, internal migration is occurring in developing countries as they transition the phase of rapid urban growth. People migrate for several reasons. However, two motives have been studied in relation to developing countries. First, migration is used as a risk-coping and survival strategy for mitigating individual, household and family income shocks (Okhankhuele and Opafunso, 2013; Kleemans and Magruder, 2018). Second, people migrate as an investment strategy to diversify their expected income and increase the future gains from a higher wage in another place, usually an urban area (Bryan et al., 2014). It is therefore not surprising that 84,579 people out of 108,422

living in the Awutu Senya East municipality are migrants (GSS, 2014). In general, Islam et al. (2022), broadly identify four reasons people migrate namely economic, socio-political, environmental, and cultural. Hence, the study applies Ravenstein (1885) pull and push concepts in his 'law of migration' to explain the factors promoting rural-urban migration in Ghana.

2.5.2.1 URBAN PULL FACTORS

Islam et al. (2022) contend that industries, markets, trade, schools, hospitals, jobs, and income opportunities, known as place utility, make an urban area desirable to move to.

Income and employment opportunities

The triple processes of industrialisation, commercialisation and globalisation have made urban areas hubs for economic growth and job creation for all age groups, genders, and social classes. Hence, various studies (Lomoro et al., 2017; Zergaw and Asale, 2019) have found employment to be a key driver of migration in Africa. Also, Teye et al. (2016) find that migration generally enhances incomes and improves wellbeing of people. According to Harris and Todaro (1970) probabilistic model, a major factor that drives individuals to urban areas is the expectation of earning higher wages than what exists in the rural agriculture economy. To this, Awumbila et al. (2014) found that the income levels of 80% of people who migrate into Accra increase.

Large informal sector and diversified industrial opportunities.

A vibrant trading and services sector have expanded and generated diversity of informal jobs for a variety of people with different skillsets. Baah-Boateng and Vanek (2020) find in a study that informal jobs represent 83 percent of urban employment in Ghana and dominated by women. With commercial and trading activities intensified in cities, small business owners usually migrate to such hubs to hawk or sell their products to make higher profits. Quarterly Informal Economy Survey (2022) estimates the size of Ghana's informal sector, which is dominant in cities to be

35.6%, approximately \$63 billion at GDP purchasing power parity levels. Thus, the sector has the capacity to offer opportunities to diverse people. Hence, many young females in Ghana migrate to major cities including Kasoa, to work in the informal economy as ‘kayayei’ or head porters (Dick and Schraven, 2021). Others go into apprenticeship. Additionally, the increase in manufacturing activities through indigenous and foreign investments have created countless opportunities for technically skilled and unskilled labour. Thus, new production techniques have created more job outlets. Hence, the quest for self-satisfying opportunities in industries and the informal sector incentivise unemployed or low earning rural inhabitants to move to cities.

Government’s development policy

The concept of urban bias is one of the most critical factors driving rural to urban migration in Ghana. Urban bias is situated on the premise of urban advantage and rural disadvantage. It has created unbalanced spatial development between urban and rural areas due to more social facilities and services centred in cities. In his book ‘Why poor people stay poor’, Lipton (1977) postulated the theory of urban bias which contends that rural areas in developing countries are plagued with serious poverty and inequalities due to more economic and productive resources allocated towards urban growth and development. The theory posits that government’s development planning strategies and economic policies, as well as private investments have favoured urban areas thereby widening gaps in development between cities and villages. In Ghana, there are government’s projects and initiatives deliberately aimed at enhancing urban living (MLGRD, 2012). The reason governments pursue urban bias policies is the idea that development will trickle down to the rural areas. However, these trickle-down effects have not materialised causing the underdevelopment of the hinterlands. Thus, the enormous development of cities serves as a pull factor bringing rural populations.

Urban areas as growth poles

Putting out his growth pole theory in the 1950s, Francois Perroux believed the growth pole would be a centre of economic activity created through the agglomeration of leading industries or innovative businesses within space. In developing countries, urban areas are dominant growth poles that need large workforce. Cities generate the field that attracts factors including labour from other areas onto it. Similarly, the polarisation effect of growth poles causes productive factors to accumulate in urban centres thereby sacrificing development in other areas. However, the spillover effects have not been beneficial to surrounding areas as they remain in the cities. Hence, the agglomeration effects may attract new enterprises (Kireeva and Tsoi 2018), and economic activities which will pull rural residents to cities. Studies by Lan et al. (2019) also find that urban agglomerations have become the growth poles for their peripheries which attract people to move.

Urban functionality

A study by Živković (2019) conceptualises urban functions as the roles a city plays in relation to its society, hinterlands, or other settlements. Urban areas perform a multiplicity of economic, social, and political functions to uplift the living standards of their residents which entice people in communities that do not have these services to move. The industrial and commercial role of urban centres as market hubs where goods from the hinterland and imported products converge to be traded, and transport hubs in which several important road networks link highly attract vibrant youths in rural areas to move. Cities play dynamic social functions including providing healthcare, hospitality, public transit, education, and skill training to satisfy the needs of residents. The role of urban centres as residential or dormitory towns in which people live but commute to work elsewhere is an important force driving urban growth. The decentralised administrative system in Ghana has enabled governance to be carried out from the local level (MLGRD, 2022), which has

created government offices including police and judicial service. Thus, people's desire to have access to quality and readily available services that enhance their well-being tend to influence the motive to move. The emergence of cities as engines of development and economic growth, and centres for education, employment, innovation, technological transfer, and trade is widely studied (Hopkins and Copus, 2018; Mahtta et al., 2022).

Urban infrastructure and amenities

The important roles that urban amenities play in the well-being of its inhabitants have been documented (Breuckner and Lall, 2015). The extensive and sophisticated social infrastructure and amenities within urban enclaves not only make living comfortable for residents but they pull people from rural areas. Liao and Wang (2019) find in a study that medical facilities play a significantly positive impact on rural-urban migrants' decisions. Urban infrastructures form the foundational basis upon which the processes of free market capitalism are turning out (Karaliotas, 2017). This new trend includes an upsurge in significant information and communication facilities, remarkable industry growth, advanced and modern medical facilities, improved teaching and learning institutions and transportation networks.

The existence of schools, telecommunication networks, electricity grids, malls, sports centres, cinema halls, water supply, roads and interchanges attract rural population to settle in cities for varied extrinsic reasons. Urban amenities attract rural inhabitants in diverse ways. Studies show that educational amenities attract the youth (Tamanja, 2013), while transport infrastructure induce skilled and unskilled people to move from rural areas (Liao and Wang, 2019). Effective transportation systems make the urban centres more habitable than rural areas, especially in emergency situations, by easing communication flow and accessibility. Urban infrastructure creation also provides avenues for employment and opening of new business opportunities.

Modernisation and transformation

Modernisation as an ongoing phenomenon in the developing world seeks to modify every aspect of political, social, economic, and cultural life along a duality of the ancient and modern, or the old and new to change people's lives and effect social change. The desire to acquire new, improved, and modern ways of life play a significant role in bringing people to cities. Hoffmann et al. (2019) admit that urban centres profoundly alter lifestyle, cause changes of livelihoods and significantly improve the socio-economic conditions of migrants. Thus, lifestyle changes through technology and globalisation attract people to cities to liberate themselves from restrictive cultures and norms. Therefore, cities serve as centres of civilisation and advancement to rural folks. Furthermore, cities offer opportunities to people to learn new skills and embrace new lifestyles reflecting dress codes, habits, attitudes, food tastes, social activities, and way of thinking.

2.5.2.2 RURAL PUSH FACTORS

Push factors are the situations in the place of origin that drive people out of them. They vary among settlements, but the factors may reflect economic, sociocultural, and environmental conditions.

Lack of livelihood opportunities

The high levels of poverty and unemployment among rural residents, and the absence of industries serve as a huge economic push factor. The non-existence of decent and alternative job outlets in rural areas of SSA (Vargas-Lundius et al., 2014) especially for the youth leaves agriculture production as the only source of employment and livelihood. However, the youth's desire for white-collar jobs which exist only in urban areas encourage them to move out of rural areas. Wuni et al (2017) argue that majority of unemployed youth lack the passion to venture into agriculture. Driven by ambitious desires to break the poverty chain, they migrate to cities in search of lucrative jobs and social networks that will enable them to realise better livelihood (Jiao et al., 2017).

Unpredictability and unprofitability of agriculture

The uncertainties associated with agricultural activities in SSA and the yearly fluctuations in prices of farm produce due to the seasonal, rain reliant nature and use of traditional techniques requiring physical energy make it a high-risk activity that demotivates the youth to engage in it. To this end, agriculture has been viewed by most young people as a hard and unsustainable activity that provides low profitability. As a result, Enu (2014) alludes that young adults migrate to urban centres for trading, employment and educational opportunities to better their lives.

Agricultural stereotypes (“Poor man’s job”)

Halbeisen et al. (2017) note that agriculture creates negative stereotypes and attitudes in the youth which cause them to move to urban areas due to non-participation. This causes farm output to fall as farm activities are left for old men and women only because farming is deemed as the work for the poor. The immediate effect of a reduction in farm produce is that it affects subsistence living since income from sale of produce also reduces. Thereby increasing the level of poverty. The rippling effects include increase dependency ratio, low standard of living and inability to acquire basic needs and service. Moreover, Girdziute et al. (2022) argue that efforts expended in agricultural activities may also alter people’s health and quality of social life. These agriculture-related stereotypes make the activity unattractive to the youth and drive them out to the cities.

Collapse of sources of livelihood

The study discovered that people migrate from deprived communities due to the setbacks from the collapse of other primary activities they engage in. For example, multiple studies have shown that poverty is the main reason people decide to engage in illegal small-scale mining activities (WHO, 2013; Antwi et al., 2014; Mactaggart et al., 2016). In Ghana, the government’s clampdown on illegal mining or ‘galamsey’ and logging activities have forced a few unemployed people to move

to find other alternative livelihoods in urban areas. Tuokuu et al. (2020) found in a study in the Tarkwa municipality that the ban on “galamsey” has inflicted serious socio-economic hardships and entrenched poverty among residents, rather than ensuring sustainable development. As a result, unemployed people are forced to migrate to seek new opportunities in cities elsewhere.

Lack of market access

The remoteness of most rural areas of the developing world means farmers must travel long distances to access markets to sell their produce from subsistence. The unmotorable nature of roads imposes high cost on mobility of goods. The consequence is that most goods do not get to consumers in the cities. This makes agriculture unbeneficial forcing people to move to seek alternative livelihoods in urban areas.

Social inequalities

The vast income and social inequalities between cities and the hinterlands of Ghana contribute greatly to human mobility. Faisal (2021) contends that in SSA, decision to migrate is induced by gender roles and power hierarchies within households. As a result, women will more likely move for marital or family reasons while men move for schooling and work-related motives.

Lack of basic infrastructure and self-development opportunities

In Ghana, the main social factors perceived to be driving rural-urban migration from the origin include issues related to pursuit of education, trade and employment (Enu, 2014), and skill training in various vocations. In a study, Alarima (2018) finds erratic electricity supply (92.5%), bad state of roads (80.0%), absence of potable water (75.0%), no good schools (37.5%), poor medical services (43.8%) and underdevelopment (78.8%) as the main factors driving the youth out of rural areas. The National Development Planning Commission (NDPC, 2017) brings into focus how the nonexistence of information and communication facilities in rural communities derail efficiency

in health delivery, information transfer, education, and business activities. These inadequacies cause the youth to migrate.

Restrictive cultural practices

Awumbila et al. (2014) point out that rural-urban drift in Ghana provides greater social and economic avenues for women, as it offers openings to services and freedom from cultural limitations. Additionally, Awumbila (2017) identifies that, in Africa, people migrate to escape kinship duties including marriage and inheritance. This is evident in Ghana where countless number of young girls run away from homes to the urban areas to avoid forced marriages and restrictive cultural activities.

Insecurity and conflicts

Volatile security situations have been identified as a push factor driving people out of rural settings. United Nations High Commissioner for Refugees (2020) claims that violent conflicts in Burkina Faso, Niger, Mali, and Nigeria, which have forcibly displaced about five million persons have intensified migration to cities in West Africa. Social instability through armed violence, raids, kidnapping and denial of basic human rights, access to education and the prevention of dignified life for females may force people to move. The religious extremist and fundamentalist activities of Boko Haram in displacing over 2 million people in Northern Nigeria is well documented (Internal Displacement Monitoring Centre, 2017).

Climate change and land degradation

The perilous impacts of climate and environmental change including droughts, floods, pest infestation, vector spread, and crop failures have become key inducers of human movement within West Africa as they force people to move to find new sources of livelihoods. Existing literature

(Levy and Patz, 2015) show that climate change causes land degradation which generates food insufficiency and health-related risks for people to migrate to urban areas.

Land grabbing

In recent years, agriculture lands used for cocoa production have been taken away by wealthy people from poor farmers and exploited for mining and residential activities. Some studies (Agbley, 2019; Alhassan et al., 2021) have empirically shown that land grabbing has serious negative consequences on the livelihoods of small-sized farming households in Ghana. Besides, Nyantakyi-Frimpong and Kerr (2016) explain the exploitation which landless farmers endure to make ends meet such as low wages, share cropping and farm labour. These vulnerabilities push these rural farmers to leave to the urban centres to find a new means of livelihood.

2.5.3 RECLASSIFICATION OF URBAN AREAS

According to Wineman et al. (2020) reclassification occurs when places formerly considered as villages are categorised as towns or cities. The process entails delimiting the boundaries of urban areas to include nearby peripheries. The concept typically comprises annexing neighbouring settlements and upgrading rural areas as urban (Farrell, 2018). This indicates that, rural communities are categorised as urban when they become merged into the urban area such that they benefit from the infrastructural and economic growth of the cities. Reclassification distinguishes itself from urban sprawl in that it typically involves administrative authorisation and deliberate adjustments (Farrell, 2018). According to Meier zu Selhausen (2022), reclassification is the statistical approach to demarcating previously rural areas as urban for administrative purposes as they build-up and expand. Urban reclassification offers policy makers the opportunity to rethink of economic, population and social change to ensure effective sustainable planning strategies and investment. Reclassification affects urban growth positively if existing urban boundaries are

delimited or expanded to include adjoining settlements on the fringes of the urban area. Stated differently, as population and economic activities increase in the cities, they expand in size spatially forming a large contiguous zone of urban built-up areas (MLGRD, 2012). In addition, urban growth is impacted positively when new rural areas that have grown in demographics and economic size are re-categorised as part of the main urban centre. Reclassification is known for its ability to provide an instant boost to the urban population (Yew, 2012). It must be noted however that, areas can be reclassified from rural to urban without necessarily experiencing economic and demographic dynamics, but just due to evolving official definitions of urban (Ratcliffe, 2015). Conceptually, the process of reclassification does not happen independent of the other determinants of urban growth, but most studies treat it in isolation (Farrell, 2017). It usually occurs under conditions of rising population and economic intensification, but it may additionally show reflections of social and political transmogrification (Farrell, 2017). Hence, rural-urban migration and natural population increase may indirectly facilitate reclassification by increasing population density within places that may later be reclassified as urban. In the views of Lichter et al. (2021), reclassification can help calculate urban demographics, project future urban growth, and comprehend changes in rural communities.

2.6 CHALLENGES OF UNCONTROLLED URBAN GROWTH IN GHANA

This section discusses comprehensively the most prominent environmental, social, economic and governance implications of the unplanned growth of cities.

Overpopulation and overcrowding

The first visible feature of the rapid growth of cities is the overly large size of population occupying a relatively small area. Uwingabire (2020) indicates that when urban centres are occupied by more people than the optimal proportion of population to land, overpopulation occurs. When

overpopulation occurs, slums begin to build, pollution increases, rent for accommodation goes up, roads become busy with traffic and market centres become congested. Per the 2021 PHC, ASEM has 236,527 people inhabiting a land area of 63 kilometres square; giving it a population density of 3,729.5 (GSS, 2021), which is the highest in the Central Region. Due to people rapidly moving to urban centres on daily basis, overcrowding has become an obstinate problem (Tao, 2017). As the population of urban areas exceed their maximum capacity, inhabitants usually compete for limited and over-stretched resources such as public transit, electricity, housing, water, healthcare and more critically, employment. In a news publication, Korankye (2022) reports of water shortage in Kasoa which lasted for over one month and was attributed to inadequate electricity supply from the Electricity Company of Ghana. Residents did not only have to walk long distances to find water but had to pay ₵2800 for water tanker supply, ₵1 for a gallon and ₵0.70 for a bucket of water (Korankye, 2022). Additionally, as urban population grows, the demand and need for ecosystem services also increase (Hennig et al., 2015). A noticeable outcome of the rise in urban population is land scarcity which increases land value above the capacity of many urban residents (Afriyie et al., 2014). This pushes residents to secure lands on the fringes of cities to undertake various developmental projects. This leads to urban spatial expansion or sprawl.

Land use land cover change from rapid urban sprawl

Today's landuse system which involves the conversion of land from non-urban to urban uses is driven by urbanisation, in the form of urban sprawl (Nuissl and Siedentop, 2021). Urban sprawl is a distinctive perceptible occurrence in cities undergoing unplanned urban growth processes (Chen et al., 2018). The conversion of land to urban uses quickens the depletion of very fertile farmlands, alters energy demand, affects the climate, decreases biodiversity, and modifies hydrologic and biogeochemical cycles (Seto et al., 2011). Besides, Nuissl and Siedentop (2021) posit that urban

sprawl is a “highly extensive form of land take for urban uses having environmentally detrimental effects”. That is, the process involves massive land use changes for purposes other than agriculture.

Previous studies observed that unregulated urban expansion transforms landuse patterns from agriculture to urban uses such as residential, industrial infrastructural and commercial purposes (Cobbinah et al., 2015; Afriyie et al., 2014; Abass et al., 2018). In addition, Kim and Kirschbaum (2015) contend that landuse land cover change (LULCC) is one of the primary generators of GHGs emanating from the direct use of lands for commercial uses, residential and forestry purposes. Investigations by Le Quéré et al. (2013) revealed that developmental activities in urban areas in recent years have resulted in the depletion of natural vegetation, water sources and soils to pave way for built-up areas to offset the needs of the rising population. As such, any alteration in the earth’s cover affects global carbon cycle which determines the amount of carbon dioxide (CO₂) in the atmosphere that influences global warming. Projections by McDonald et al. (2018) on worldwide urban sprawl show that 290,000 kilometres square of natural habitat will be lost to urban expansion between 2000 and 2030. Further studies by Ke et al. (2018) found that the sprawl of urban centres have led to more than 80% of natural habitat depletion across various local areas. Additionally, Seto et al. (2012) aver that the extent and speedy nature of urban growth processes are driving unsustainable alterations in landuse locally. Doe et al. (2022) in a study between 2014 and 2020, find a 51.45% spatial increase in urbanised area of Kasoa (ASEM) from 20.45 kilometres square to 49.37 kilometres square in 2020, while 1.41 kilometres square of forest lands and 0.01 kilometres square of water bodies were converted to built-up areas. The expansion of cities through land cover changes and uses to man-made structures is regarded as a major factor responsible for the rising land surface temperature of urban areas (Stull, 2012). Thus, urban sprawl has serious implications for biodiversity and crop production as increasing built-up areas reduce

fertile land for cultivation and water quality which are means of livelihoods of urban farmers (Mariwah et al., 2015).

Climate change impacts

Climate change is a global phenomenon that chiefly impacts urban life (UNEP, 2022), and regarded as the most serious threat to life across the world. Various literature indicate that climate change is 50 percent caused by natural and anthropogenic emissions of air pollutants primarily driven by GHGs (IPCC, 2013; Xu and Lamarque, 2018). In a study, Zhao (2018) observed that heat stress is a major problem encountered by urban inhabitants due to the transformation of unbuilt lands to urban uses which generate local warming effects by changing the biophysical characteristics of land, thereby adding up to the non-local GHG induced warming. Studies have shown that carbon dioxide and methane emitted from the burning of fossil fuels constitute 90% of all GHGs that cause global warming (Kumar et al., 2020). In Ghana, charcoal makes up about 87% of urban households' energy for cooking; 31.7% use it regularly (Meng et al., 2021). Additional investigations indicate that Africa currently generates 3% of total global emissions of GHGs which is estimated to quadruple by 2050 due to exploding population, fast rate of urbanisation, extension of electrification, industrialisation, and land-use changes (Chikoko, 2022). The climate change implications are diverse for urban areas and affect human mobility, traffic flow, air quality, flooding, job opportunities, inequalities, disaster risk, health outcomes among others (Lamson-Hall, 2021). Thus, the 'climate change effect' of urban growth is multifaceted and affects every aspect of the socio-spatial and economic life of every urban resident and the nation at large. Despite this, Odonkor et al. (2020) find in study that only 43.9% of Ghanaians are aware of climate change and its impacts. Studies by UN Habitat (2022) reveal that urban areas contribute between 71% to 76% of carbon dioxide emissions globally, and contain huge volumes of infrastructure,

financial, human livelihoods and properties that are vulnerable to the costly vagaries of climate change impacts. Among the climatic issues that would be a threat to urban residents are increasing global temperatures that will cause sea levels to rise, inland floods, storms, drought, increased rainfall, and periods of extreme heat and cold (UN-Habitat, 2022), and increases in the spread of tropical diseases (UNEP, 2022). The perennial flooding of ASEM have been consistently reported in the media (Graphic, May 27, 2022; Ghana News Agency, May 25, 2022). Analysing the interlinkage between climatic factors and health risks, Du et al. (2019) found that the health effects of climate change are pronounced in places of low air quality. This is evident in most SSA cities where secondary activities and vehicular traffic are high. Hence, poor air quality in urban environments.

Unemployment

A major outcome of unplanned and uninformed migration into urban centres is unemployment (Fitsum, 2014). This is the consequence of growth of urban workforce in developing countries usually outstripping the absorptive capacity regarding the availability of decent jobs for the new entrants in the urban labour market (Aikaeli et al., 2020). As a result, unemployment is the most challenging economic problem facing governments (Amenu et al., 2019), and managers of urban areas of SSA. Sanchez-Reaza et al. (2016) maintain that in most African cities, creating jobs wallows to match up with urbanisation and population growth which has exacerbated unemployment. Unemployment in urban areas leads to loss of productive labour force that impacts negatively on the potential growth of the economy. Studies have recorded devastating effects of unemployment in cities including high incidence of poverty and inequalities (ILO, 2020); and the creation of socially disadvantaged groups usually the youth who are more likely to have worse health outcomes (Antipova, 2020). Unemployment in urban centres give rise to nefarious vices

such as crimes, ritual activities, suicides, gangism, alcoholism and prostitution. The condition of being unemployed comes with psychological and health issues. Therefore, high urban unemployment imposes a cost on urban authorities since curbing unacceptable social activities and behaviour come with a huge financial burden. Meanwhile, the perception that the influx of people into urban centres is due to an increased need for workforce is untrue for developing countries as there are nonexistent jobs.

Slum

Worldwide, it is estimated that over 1.05 billion people live in slums (Statista, 2022). In SSA, 51% of urban residents live in slums (World Bank, 2022d). Similarly, NDPC report (2022) reveals that the number of slum dwellers in Ghana waxed from 5.5 million in 2017 to 8.8 million in 2020. These pose serious threats to cities resilience and sustainability. UN Habitat, (2021) operationally defines a slum as “household in which the inhabitants suffer one or more of the following deprivations such as lack of access to improved water source, lack of access to improved sanitation facilities, lack of sufficient living area, lack of housing durability, and lack of security of tenure”. Typically, slums in developing countries are overcrowded and put enormous strain on basic social infrastructure such as schools, housing, water, sanitation, and hospitals which are limited or even nonexistent. Taher and Ibrahim (2014) point out that slums are plagued with high incidence of crime, drug usage and addiction, unemployment, mental sicknesses, malnourishment, diseases, and poverty. A report by Amnesty International (2018) puts the number of slums in Ghana at 23, out of which six have experienced forced evictions mainly by state agencies. Likewise, Rowe (2022) posits that the largest slums globally such as Orangi Town in Karachi (Pakistan) with 2.4 million residents, Neza in Mexico (1.2 million); Dharavi in Mumbai, India (1 million); Kibera in Nairobi, Kenya (700,000) and Khayelitsha in Cape Town (South Africa) with 400,000 inhabitants

endure social exclusions, unfriendly policy environment, harsh climatic issues, inadequate public health polices and face poverty penalty, thereby paying more for essential services than inhabitants in richer areas. Palanivel (2017) finds that about 700 million urban slum inhabitants live without adequate sanitation and potable water, which increase the risk of communicable diseases especially among underage people. As such, slums prevent cities from being resilient as they cannot withstand or absorb shocks and stress on their governance, economic, social, environmental, security and infrastructural systems (Neirotti et al., 2014; Albino et al., 2015).

Urban governance

Urban governance actors such as government, local authorities, traditional leaders, and private sector face two major challenges due to unplanned growth. These are institutional capacity and fiscal problems. Inferring from this, Obeng-Odoom (2013) argues that irresolute planning and infirm administrative systems aggravated by poor monetary and resource base have curtailed cities capacity to handle the needs of their inhabitants and new migrants. Managing urban areas become an insurmountable task when the population and spatial expansion occur spontaneously as city authorities are overwhelmed due to inadequate resources (MLGRD, 2012). The entire aim of urban governance is to realise equity, liveability, and sustainability of urban areas in the future (WEF, 2018). However, growth always outstrip the capacity to provide the requisite services. Hence, Smit (2018) argues that inadequate capacity to plan and manage urban centres in SSA is causing informalities, disparities, and rising health risks in cities. Uncontrolled urban growth in SSA has serious implications for policy coordination including planning, financing, and managing urban areas (MLGRD, 2012). As a result, municipal authorities are unable to meet the rapidly increasing demand for basic social services and facilities and ensure minimum quality of life for city inhabitants (UN DESA, 2020). Urban areas contribute greatly to climate change and must be focal

to addressing it (Avis, 2016). However, devising better strategies by policymakers to integrate local urban policies with international, regional, and national climate strategies is a challenge. Also, essential services namely water supply, sanitation and waste management are usually prominent urban governance function of local authorities but only a small fraction of SSA urban population are catered for by state-provided services. That is, 56 percent of Africa's city residents reside in unserved zones (UN Habitat. 2016). As cities grow, administering them becomes complex and requires the most efficient technology and skills. Rapid urban growth poses governance challenges such as land use planning where lands are given out for residential, commercial, and industrial purposes rather than urban agriculture because it is deemed incompatible with what modern cities should look like (Kuusaana and Eledi, (2015). Landuse planning efficiently depends on strategic investment in sources of power and connective infrastructure such as public transit, water supply and sanitation that in turn influence private investment (Duranton and Venables, 2018). However, these planning and investment are lacking due to insufficient fiscal capacity worsened by unplanned growth. Again, most urban built-up areas in Ghana defy spatial planning policies. Hence, houses are constructed haphazardly without proper transport network, security, water supply and sanitation.

Pressure on social infrastructure

The swiftness and scale of urban growth bring difficulties on how to mitigate the escalating demand for affordable housing and viable infrastructure such as public transit systems, basic services, and amenities (World Bank, 2022a). The poor nature of urban infrastructure due to excessive usage from rapid urban growth minimises cities economic prospects and competitiveness. Peng and Stewart (2016) also highlight the climate change impacts in accelerating the deterioration rate of urban infrastructure. Further studies by Xiong et al. (2018)

have as well argued that, due to inconstant climatic conditions, drainage facilities would be incapable of containing future increases in rainfall which will expose cities to floods. Urban population growth has resulted in infrastructural deficiencies including unreliable power supply, congested roads, bad public transit systems, inadequate schools, inefficacious health centres and sanitation facilities in cities. That is, the more a city expands, the greater the per capita cost of providing basic public services, as well as the health and social costs associated with congestion, pollution, and urban inefficiencies. With 4.4 billion people residing in cities, out of which 1 billion live in informal settlements, housing becomes a major challenge (World Bank, 2022a). To offset the rapid growth in urban residency, UNDP Human Development Report (2017) estimates that about \$57 trillion infrastructure investment is needed across the world by 2030 alone.

Congestion

The rapid population growth of cities has a positive association with demand for use and ownership of vehicles either for personal use in advanced countries or minibuses in developing nations (Gwilliam, 2013). Human and vehicular traffic cause more challenges than just delays in commuting. They seriously affect the timeliness and effectiveness of service delivery (Ohio University, 2022). Urban productiveness is hugely reliant on the effectiveness of its transport system to move labour, consumers and freight among multiple origins and destinations. Congestion increases travel cost and reduces accessibility by increasing travel time (Fattah et al., 2022) and the cost of doing business. Hence, it may deter new investors (MLGRD, 2012), and potential residents from moving to the area. According to WEF (2019), a study by INRIX, a transport data company, revealed that overall cost of lost productivity in the USA driven by congestion amounted to \$87 billion. Rodrigue (2020) contends that the most crucial transporting setbacks happen when urban transit systems cannot sufficiently satisfy the prerequisites of urban

mobility. Hence, Higgins et al. (2017) explain that congestion poses significant adverse impacts on urban areas including increased noise pollution, driver stress, increased passenger time pressure, retarding economic growth; and gradual slowdown of traffic and increased fuel consumption (Bigazzi and Clifton, 2015). The largest source of atmospheric pollution in cities is attributable to automobile transportation with severe exposure levels (Hitchcock et al., 2014). As a result, UNEP (2014) ascribed huge proportion of GHGs emissions in Ghana to the transport sector. Thus, congestion in cities worldwide is a major driving force for global warming and climate change.

Sanitation

A study by Appiah-Effah et al. (2019) finds that about 1.8 million (11%) of Ghana's urban residents practice open defecation. This is attributed to limited cheap sanitation and waste treatment technology options, and growth in number of urban slums. Inadequate sanitation undermines urban livelihoods in Ghana as it is associated with the spread of diarrhoeal sicknesses including cholera and dysentery (Danso, 2016), and typhoid, intestinal worm infections and polio (WHO, 2022). Poor sanitation is a sign of urban poverty and a notable risk factor for morbidity and mortality. Hutton and Chase (2016) ascertain that insufficient sanitation results in the spread of pathogens through fecal particles and urine, which lead to the transmission of water borne diseases. GSS (2018) finds in study that urban sanitation coverage in Ghana is low, with only 25 percent of the population having access to basic sanitation. According to World Bank (2022e), 2.01 billion tons of solid waste is generated yearly in urban centres across the globe and will increase to 3.40 billion tons by 2050, of which 33% is not disposed in an environmentally safe manner. In Ghana, about 12.3 million kilograms of solid waste is produced in cities daily (Barnor et al., 2018); of which 62 percent are disposed of at specific dumping sites (Oduro-Appiah et al.,

2017). Indiscriminate dumping of solid waste and plastics in drains and streets bring extra cost on city authorities and contribute to global warming. Emissions from waste are expected to rise to 2.38 billion tons of carbon dioxide equivalence per annum by 2050 (World Bank, 2022e). Water and Sanitation Programme (2012) estimates that urban authorities in Ghana spend nearly GHC6.7 million (US\$ 3.45 million) every year on the collection and disposal of waste. According to UNICEF (2022), Ghana's total budget of GHS558 million in 2021 for water, sanitation and hygiene constitutes a 74% rise from the 2020 figure but it falls far below the estimated GHS1,750 million needed to provide basic services for the sector. This serves as a huge hindrance to achieving the targets of the SDGs on sanitation by 2030.

Security and crime

Rapid urban population growth and its rising poverty levels (Mitlin and Satterthwaite, 2013), inadequate job opportunities, unemployment and growing slum dwellers have led to rising crime rate and security issues, as the youth attempt to find a quick source of livelihood. To this end, Ajaegbu (2012) posits that unemployment and economic hardship have driven many unemployed youths, some of whom are graduates, into various nefarious activities. The relationship between poverty and crime have been at the centre of research. A study by Katsina (2013) found that unemployment, urban poverty, sinking economy and inequality are major drivers of urban crimes. As a result, Obeng-Odoom et al. (2014) identified that crime is a driving factor for the increasing number of gated houses in cities in Ghana due to high sense of insecurity among well-off households. Various studies have identified within city settings robbery, assault, vehicle theft, thuggery, burglary, pickpocketing, stealing, murder, and homicide among others as major crimes (Ajaegbu, 2012; Song et al., 2013; Habibullah, et al., 2013). These heighten urban insecurity

making life precarious in cities. In recent years, forceful land take-overs using landguards and money-related ritual murders are on the ascendency in cities in Ghana including Kasoa and Accra.

2.7 POLICY, INSTITUTIONAL AND LEGAL FRAMEWORK ON URBAN DEVELOPMENT IN GHANA

The National Urban Policy (NUP) was promulgated in 2012. It is the first comprehensive urban policy in Ghana. The policy was spearheaded by the Ministry of Local Government and Rural Development and sets out to “*promote a sustainable, spatially integrated and orderly development of urban settlements with adequate housing, infrastructure and services, efficient institutions, and a sound living and working environment for all people to support the rapid socio-economic development of Ghana*” (MLGRD, 2012). The policy was necessitated by Ghana’s demographic shift from rural to urban leading to population explosion in cities, and the lack of urban management capacity of district assemblies which make them struggle to develop strategies and plans to mobilise the needed resources to manage urban growth. NUP is guided by seven key principles, and Ghana’s environmental policy which requires all policies, plans, and programmes about urban development to be subjected to a sustainable environmental assessment.

These core principles are, promoting urban centres as engines of growth; promoting development through an integrated settlement system; facilitating socio-economic development of rural and lagging regions; mainstreaming environmental concerns into urban development; enhancing participatory and accountable urban governance; employing information, education, and communication strategy; and emphasising the roles of central and local governments. NUP therefore attempts to address some fundamental challenges associated with urban growth and management in Ghana including uncontrolled urban sprawl, urban poverty, weak rural-urban linkages, traffic congestion, inadequate urban investment, slums, and environmental destruction

among others. NUP is all-inclusive and considers the needs of disadvantaged and vulnerable groups. A major feature of the policy is its participatory approach which permits multi-stakeholder involvement. The policy created a multilevel governance system with the national level for policy formulation; the regional level for monitoring, coordination, and evaluation; and the district level for implementation. A major outcome of the policy is infrastructure upgrade in cities through projects like the Ghana Secondary Cities Support Programme, Ghana Urban Mobility and Accessibility Project, Ghana Urban Management Pilot Programme, and Greater Accra Resilient and Integrated Development project among others. It has also institutionalised the yearly held Ghana Urban Forum. The NUP framework aims at harmonising effective coordination among institutions and actors responsible for urban development and management in Ghana.

The responsibility for urban development is spread among numerous ministries, departments, and agencies (MDAs) and metropolitan, municipal and district assemblies (MMDAs). Hence, the policy clarifies the roles and duties of the various state institutions. These institutions include the MLGRD, NDPC, MDAs, MMDAs, Land Use and Spatial Planning Authority (LUSPA), Urban Development Unit and Regional Coordinating Councils. To this, various regulations and legislative acts have been enacted to make local authorities work effectively and strengthen fiscal decentralisation in Ghana. These include the Local Governance Act, 2016 (Act 936), Local Government Act (Act 462), District Assemblies Common Fund Act (Act 455), National Decentralisation Policy and Action Plan, Land Use and Spatial Planning Act, 2016 (Act 925), National Housing Policy and Action Plan (2014) and many more.

The Local Governance Act, 2016 (Act 936) administers the local government system, decentralised development, and planning in Ghana. It establishes every district as a planning authority responsible for regulating physical and economic development; and provides

enforcement for unauthorised development, while promoting participatory governance at the local level. Similarly, the Land Use and Spatial Planning Act, 2016 (Act 925) regulates spatial and land use planning aspect of socio-economic development in Ghana. It provides for the sustainable development of land and human settlements through a decentralised planning system that advocates for the judicious use of land and promotes healthy and safe human settlements.

Additionally, under the auspices of the NDPC, Ghana implements the New Urban Agenda (NUA) framework signed in 2016 after the Quito Declaration on Sustainable Cities and Human Settlements for all (Habitat III). It highlights the importance of urban planning, offers a broader perspective for developing urban centres and takes cognisance of the impacts of climate change on development. NUA focuses on people, the planet, prosperity, peace, and partnerships in urban settings and aligns with targets of the SDGs, and the Agenda 2063 of the African Union and Ghana's development aspiration to *"create an optimistic, self-confident and prosperous nation, through the creative exploitation of our human and natural resources, and operating within a democratic, open and fair society in which mutual trust and economic opportunities exist for all"* (NDPC, 2022). NUA is incorporated into Ghana's National Development Policy Frameworks which provide the strategic direction for the development of the nation.

2.8 MULTIPLE NUCLEI THEORY: A REVIEW

The multiple nuclei theory was put forward by Chauncy Harris and Edward Ullman in 1945 in their work 'the Nature of Cities' to explain the growth, landuse forms and layout of cities. The theory evaluates the multi-nodal attributes of urban growth within cities (Michael, 2005). It postulates that an urban centre contains more than one core zone around which activities operate (Harris and Ullman, 1945). Therefore, as cities expand, they undergo various modifications in form, landuse, functionality and population distribution through vehicle-based intraurban dispersal

that creates new specialised growth points. These nodes gain significance, increase in size, and begin to influence the growth of activities around them, land value and landuse patterns. As such, productive activities with similar landuse and financial requirements are formed closer to each other and this clustering induces their immediate neighborhood with the development of several nuclei (Mohsin and Anwar, 2015). These patterns enable us to comprehend why certain landuse activities such as markets, airports, universities, hospitals, malls, and parks are observed in specific locations within cities. The theory indicates that a city may begin with a CBD, over time, its activities evolve and spread on its fringes and attract people from surrounding areas, thereby creating new growth points themselves. This makes commuting from the suburbs to CBD shorter.

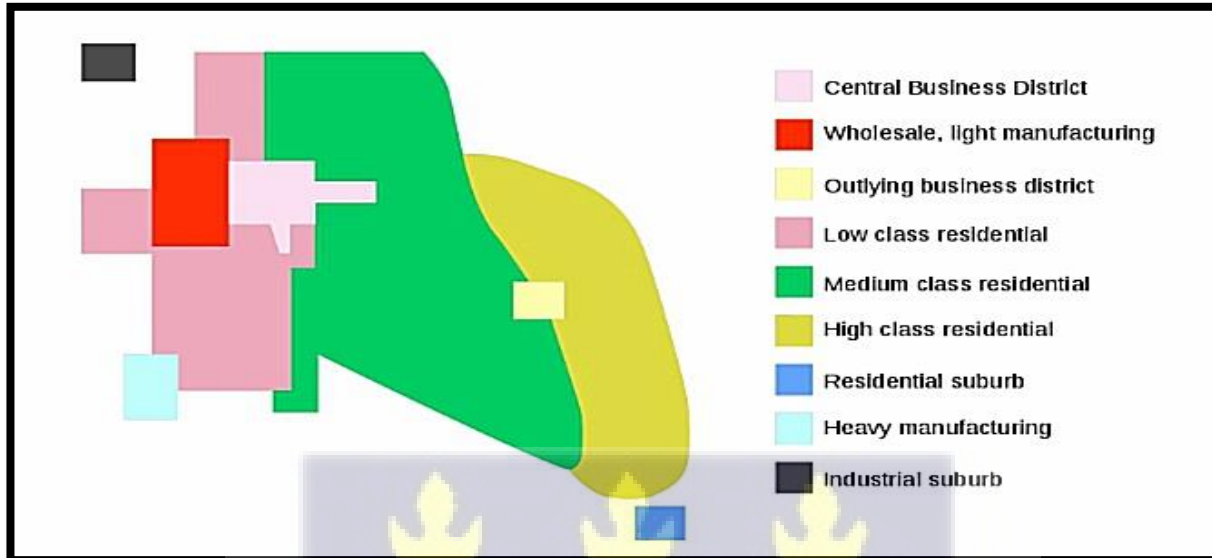
The primary assumption underlying the multiple nuclei theory is that cities are not monocentric but have many growth points which play a significant role in the city's development. In addition, the theory assumes that land is not flat in all areas of the city. Thus, topography influences economic activities, development, and direction of growth of urban areas. It further posited that resources are evenly spread in the city. Hence, residents have equal access to resources. Another assumption of the theory is that population is evenly distributed within the residential areas of the city. This is essential because an unevenly distributed population directly affects markets. Moreover, transportation cost is assumed to be the same across the city regardless of the location. Finally, the theory assumes that economic activities locate where profit could be maximised. Thus, businesses establish where the costs of production factors yield the greatest benefits. The multiple nuclei theory was considered a much better attempt at explaining urban structure than previous models such as the sector and concentric models. The theory provides a more practical explanation of the spatial structure, landuse and pattern of growth of urban areas. Realistically, cities have many CBDs where activities occur, and residents go to work. The theory also acknowledges the

relevance of automobile-based transport networks in contributing to the sprawl of cities and allocating population, economic activities, and opportunities within an urban setting. Additionally, it is a realistic attempt at planning urban land use as industrial areas that generate pollution are sited away from residential settlements. Furthermore, the theory is applicable to large and expanding urban centres. As cities grow in population and expand in size, locating all activities in one core area becomes unfeasible. This can be said of Accra, Kumasi, Kasoa and Tema. Despite some cities partly showing the layout and pattern of growth of the theory, its assumptions have been questioned. First, urban areas are not homogenous socially or economically. As such, each zone may depict a significant amount of internal heterogeneity. Second, the abrupt divisions between zones in a city are non-existent in real terms. Third, the formation of well-defined nuclei requires a city with a considerable size since small or newly established towns do not have many well-defined growth points. Furthermore, resources and population are not equally distributed within an urban area. Additionally, transport cost within an urban setting is influenced by location and are not the same across the city. The theory neglects the height of buildings as high rising buildings can slow the pace of spatial expansion. Similarly, the influence of government policy in determining the allocation of resources was ignored. Hence, the theory is not an exact fit for explaining the structure and growth of all urban areas.

The theory proposes nine distinct zones of unique functions that influence activities around them. These activities are dependent on each other when they are in proximity. As shown in Figure 2.1., the CBD is the primary nucleus of economic activities in the city around which multiple small business districts develop and spread within an urban setting. The outlying business district is newer specialised and differentiated zone which competes with the CBD for inhabitants who reside in nearby neighborhoods and provides identical goods and services as the CBD; thus, reducing the

pull power of the CBD. The wholesale and light manufacturing zone is a consumer-oriented node sited near residential areas.

Figure 2.1: The Harris-Ullman Multiple Nuclei Model (1945)



Source: Harris and Ullman (1945)

As such, industries that require small quantities of raw materials and space; and wholesale businesses like clothes, furniture and electronics develop here. Residential neighborhoods of varying status also spring up randomly. The low- or working-class settlements develop around the industrial enclave accommodating factory hands who live in low income or cheap houses. Due to the proximity to industry, pollution, sanitation, traffic, and environmental hazards make living conditions unbearable. The main motive of residents is to reduce the cost of commuting to work and are sometimes discriminated against or stereotyped. Majority of urban residents live in the middle-class residential zone. This area is more desirable and appreciable because workers have easy access to transport networks to the CBD and it is quite distant from industry and pollution. The high-class residential sector is an elite zone inhabited by a few upper-class urban dwellers. It tends to be well planned, quiet, clean and have less traffic. Prime real estates also emerge on the

corridor and link the CBD to the city's edges. As the city grows, residential suburbs which are usually not well-patterned single-household homes spring up on the outskirts of the city. The heavy manufacturing zone is occupied by factories that process heavy materials like chemicals, steel, and industrial machinery. The industrial suburb emerges on the outskirts of the city and is situated away from residential areas because they create pollution.

In terms of applicability, the study observed that the growth patterns, layout and landuse changes of ASEM partly share some semblance with the original layout depicted by the multiple nuclei theory. ASEM approximately show similar zones of residential and economic agglomerations as the theory. As illustrated in Figure 3.1., (refer to Chapter Three), the CBD is sited in the innermost and most congested area of ASEM commonly called Kasoa. It is the hub for retailing, wholesaling, and street hawking activities. As the most accessible area of the municipality, all transport routes converge on it. Hence, a great proportion of consumers visit to transact business on daily basis. Around the CBD are old and low-class settlements such as Zongo and Walantu with insufficient water and sanitation. A host of small-scale artisanal and trading activities develop and intensify here. Furthermore, high class residential zones such as Millennium City and Blue Top Estate, which house high income groups, are located on the fringes, farther from the CBD. Settlements such as Akweley, Ofaakor and Opeikuma can be classed as middle-class residential areas as they are inhabited by low to middle class income groups. Public places including government offices, hospitals, schools, markets, and police station were initially sited near the CBD and the low-income residential area. Intense commercial activities are mainly noticed along road networks (Mohsin and Anwar, 2015) of the municipality. The study observed the development of other nodes with specialised functions on the fringes of ASEM. These include private hospitals, hotels,

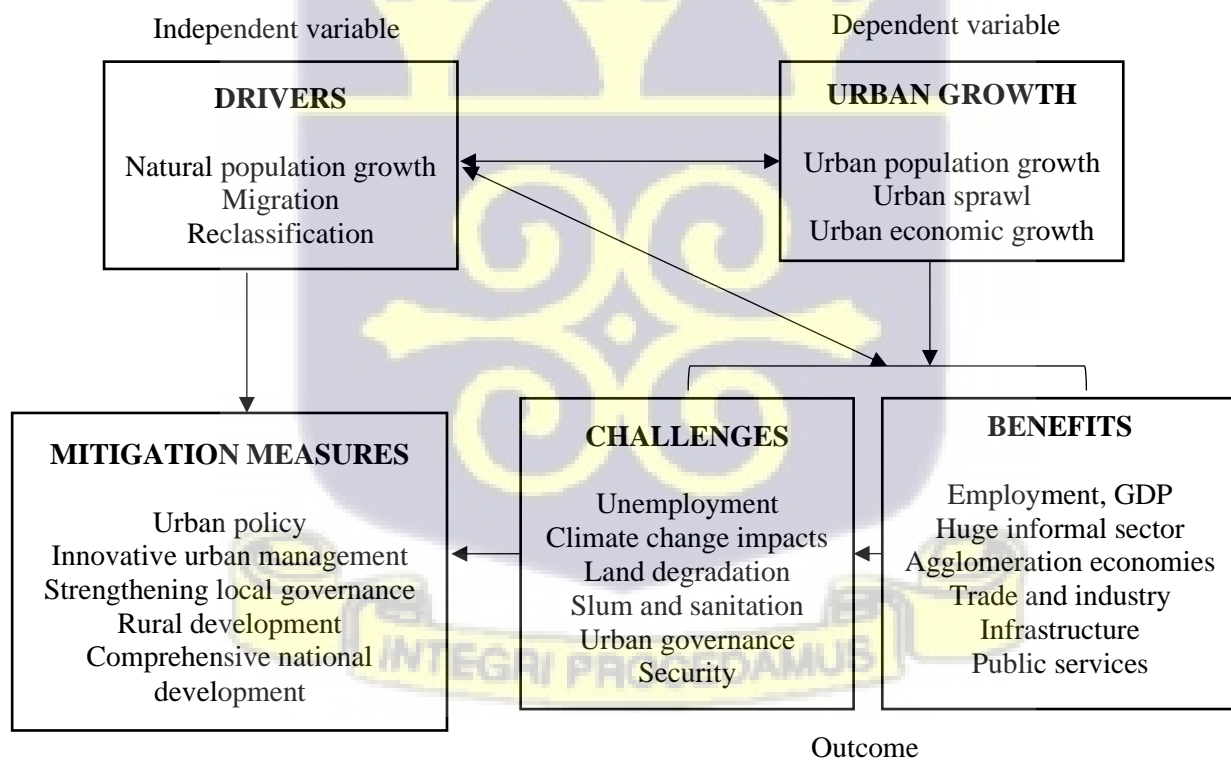
university, and timber market. In sum, the model enabled us to explain major aspects of ASEM's urban structure namely density, land use mix, accessibility, and connectivity.

2.9 STUDY'S CONCEPTUAL FRAMEWORK

The study's conceptual framework was derived from a review of scientific literature and the multiple nuclei theory. The research objectives served as a reference point for constructing it. The paradigm presents measurable variables which can generate data that can be analysed statistically. The study conceptualised that rapid urban growth is eminently driven by three factors identified as urban natural population increase, migration, and reclassification. Urban natural population increase is induced by the biological processes of high births and low deaths in cities which increase population growth. The comparatively quality living standards and education of urban residents, coupled with the improved access to medical facilities have increased the survival rate of newborn babies and ensured people live longer. However, years of schooling and family planning practices have ensured that number of births recorded increase at a diminishing rate. Rural-urban migration influences population growth through its urban-pull and rural-push factors. For this study, intercity migration was also considered. The rural-push factors are usually the repressive economic, social, environmental, and cultural issues in rural areas that dispel people, especially surplus labour, to urban areas in search of employment and better opportunities. They usually include unemployment, unproductive economic activities, land issues and inadequate amenities such as roads, markets, electricity, schools, and hospitals. The urban-pull factors are the perceived favourable socio-economic conditions existing in cities that attract people from deprived communities into urban centres. They typically include the benefits accrued from agglomeration economies, large informal sector, urban bias, employment opportunities and essential infrastructure. Statistical reclassification is mainly done by policy makers for administrative

purposes. It involves delimiting the boundaries of cities to include their adjoining peripheries. The drivers generate three different demographic, spatial and socio-economic effects namely urban population growth, which reflects high population densities of cities; rapid economic development that shows the astronomical increases in industrial and commercial activities; and rapid urban sprawl, which is visibly observed through expansion of built-up areas due to conversion of arable lands for residential, industrial, and commercial purposes. Collectively, these resultant phenomena are termed as urban growth. As illustrated in Figure 2.2., the study explicitly presented two variables. The causative or driving factors are the independent variables while the resultant factors are the dependent variables. Urban growth generates two outcomes; benefits and challenges, which may be social, economic, political, or environmental in nature.

Figure 2.2: Conceptual framework: Urban growth, drivers, benefits, and challenges



Source: Author's construct (2023)

The benefits include contributing to GDP and employment; intensifying industrial, commercial, and informal sector activities; and aiding modernisation and globalisation. The challenges affect livelihoods and wellbeing. The socio-economic problems include high rate of unemployment, security, slum growth and insanitary conditions. The governance drawbacks are the institutional capacity and financial burden imposed on urban managers. These lead to inefficient delivery of public services and poor urban management. The environmental issues include climate change impacts, land degradation, pollution and land use land cover changes. These reduce the resilience of cities. The outcomes directly influence people's migration decisions to urban centres. Completing the urban growth process are the mitigation measures, generally government policies, adopted to make urban areas resilient to the challenges they face and more sustainably beneficial to its residents and the country at large; and minimise the rate of rural-urban drift. They include innovative urban management and rural development strategies put in place to control the drivers of urban growth, and plan, manage and develop urban areas, as well as rural areas.

2.10 RESEARCH GAPS AND GREY AREAS IDENTIFIED

Reviewing various literature showed that lots of studies have been conducted on the broad subject of urban growth across the globe. It has also been established that urban growth propels economic growth as well as imposes dire consequences on cities, and countries at large. However, there is scanty literature on uncontrolled urban growth in SSA, Ghana inclusive, as most literature focused on 'urbanisation'. Additionally, the review explicitly revealed that studies on uncontrolled urban growth of Awutu Senya East Municipality is limited as the phenomenon is yet to be fully studied within the area. Furthermore, the review of literature on the drivers of rapid urban growth showed that an overwhelming number of academic works have been done on the rural-urban migration aspects, thereby neglecting the natural population increase and reclassification. The research

therefore contributes to knowledge by filling these gaps identified in the literature on uncontrolled urban growth. Additionally, the study finds that the role of reclassification in contributing to urban growth has received less attention from researchers across developing countries. Hence, how it promotes or influence urban growth is not straightforward to comprehend. Therefore, more studies are needed to bring more insight on the concept.

2.11 CHAPTER SUMMARY

Chapter Two focused on the literature review. It expansively explored various studies conducted on the topic. The chapter commenced with an examination of three key recurring foundational concepts used in the study namely urban area, urban growth, and uncontrolled urban growth. It then delved extensively into the main drivers of uncontrolled urban growth including urban natural population increase, rural-urban migration, and reclassification. Natural population increase is induced by a net positive increase, such that, urban birth rate is higher than death rate. It was additionally reviewed that rural-urban migration is a spatial and economic phenomenon propelled by rural-push factors existing in lagging areas, and urban-pull factors found in cities. Reclassification delimits boundaries of cities to include the rural fringes for administrative purposes. Furthermore, the diverse economic, social, environmental and governance challenges imposed on urban areas by their uncontrolled growth were duly assessed. The policy, institutional and legal framework guiding urban development in Ghana were highlighted. The chapter concluded with the review of the multiple nuclei theory which was relied on to explain the dynamisms of ASEM's landuse patterns. Furtherance to this, a concise conceptual framework was designed to explain the relationship between various variables used for the study. Finally, the gaps and grey areas identified in existing literature were brought to the fore.

CHAPTER THREE

STUDY AREA AND METHODOLOGY

3.1 INTRODUCTION

This chapter discussed the various procedures, rules, practices, and techniques used to implement the research within the study area, which enabled the researcher to operationalise the study objectives. The chapter comprised two main sections and each section was further divided into various sub-sections. The first section gave a general overview of the study area, Awutu Senya East Municipality. It thoroughly described the profile of the study area with reference to location, size, population characteristics, economy and social infrastructure. An in-depth comprehension of the terrain and characteristics of the municipality; and importantly, the socio-economic opportunities are crucial to understanding the rapid urbanisation of the area. The second section discussed the research methodology employed for the study, and it typically considered research design, study population, sampling techniques, methods of gathering data and analytical processes.

3.2 PROFILE OF AWUTU SENYA EAST MUNICIPALITY

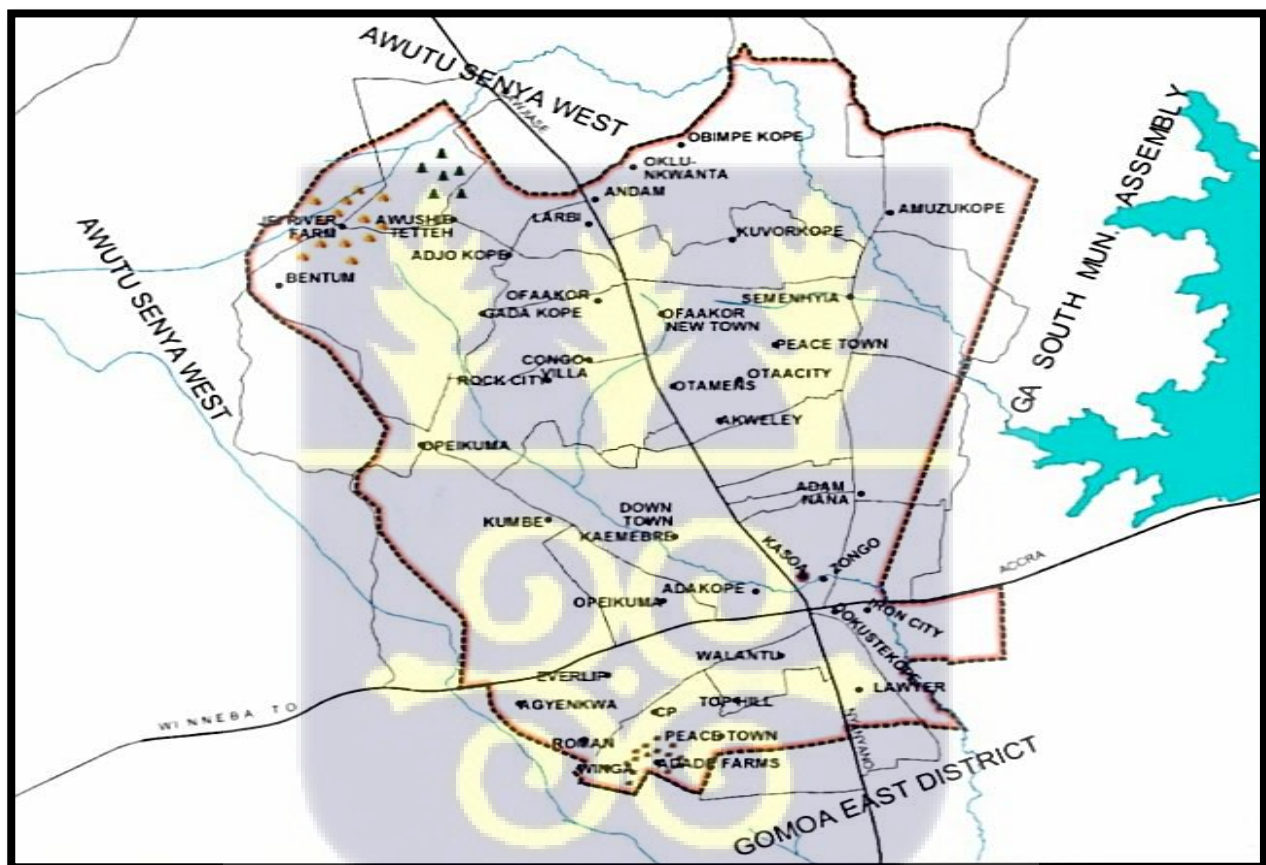
ASEM's physical growth followed a linear axial pattern along the Accra-Cape Coast highway. Hence, ease of accessibility played a key role in its growth and expansion. This section therefore analysed a multitude of factors that enabled the researcher to properly describe the municipality.

3.2.1 ESTABLISHMENT AND LOCATION

The Awutu Senya East Municipality was split up from the Awutu Senya District and established as a municipality in 2012 by Legislative Instrument 2025 (LI 2025), to facilitate Ghana's decentralisation process and the local governance system (GSS, 2014). The municipality has one constituency, 6 zonal councils, 13 electoral areas and 19 assembly members headed by a Municipal Chief Executive (ASEMA, 2022). Kasoa is the municipal capital. The municipality is situated in

the eastern part of the Central Region and lies within the geographic coordinates 5°32'4.2N and 0°25'0.4W (Geodatos, 2023). It covers a total land area of 63 kilometres square, approximately 0.64 percent of the total land area of the Central Region (GSS, 2021). Figure 3.1 shows the map of ASEM and the districts it shares boundaries with. The municipal area is bounded by Awutu Senya District at the north, Gomoa East District at the west and south, and Ga South Municipal in the east (GSS, 2014).

Figure 3.1: Map of Awutu Senya East Municipality



Source: Annual Progress Report (ASEMA 2019)

3.2.2 RELIEF, DRAINAGE AND CLIMATE

ASEM is characterised by isolated undulating topography at the Ofaakor and Akweley area that directly relates to the soil type. That is, loamy soils in the highlands and clay soils in lowland areas. Geomorphologically, the municipality is underlain by Birrimian rocks, which consist basically of

granitic rocks and phyllites (GSS, 2014). The area is drained by the Okrudu River into the sea and causes perennial flooding during the rainy season. The municipality is a portion of the south-west plains of Ghana and the vegetation is mainly semi-deciduous forest. GSS (2014) indicates that the area is one of the hottest zones of the country with temperatures averaging between 23°C-33°C annually. Similarly, rainfall is very torrential in the municipality, especially in March to September, and averages 750mm yearly (GSS, 2014).

3.2.3 DEMOGRAPHIC CHARACTERISTICS

As already noted, ASEM had a total population of 236,527 in 2021. The municipality also has 67,500 households and an average household size of 3.5 (GSS, 2021). Structurally, 120,997 residents, representing 51.2%, are females, and 115,530 (48.8%) are males; with a higher proportion of youthful population than the older ages (GSS, 2014). Additionally, the municipality is 97.1% urbanised and literacy rate among its inhabitants is at 88.8% (GSS 2021). Among the notable settlements are Kasoa, Ofaakor, Walantu, Opeikuma, Akweley, Kpormertey, Adam Nana and Zongo. Concerning ethnicity, ASEM is predominantly inhabited by Akans, constituting about 57.3%, Ewe (16%), Ga-Dangbe (7%), and the remaining groups accounting for the rest (GSS, 2021). GSS (2014) puts the crude birth rate of the municipal area at 25.4 per 1000 people while the crude death rate is 2.5 per 1000, and there are 84,579 migrants residing in the municipality.

3.2.4 ECONOMY AND SOCIAL INFRASTRUCTURE

The municipality has a diversified economy which is heavily dominated by a strong informal sector. The predominant economic activities are retail and wholesale trading which employ 37.5% of the workforce; agro-processing and informal services sector (GSS, 2014). Livestock rearing and arable farming of crops such as plantain, pineapple, yam, citrus and maize are done on smaller scale. There is also a thriving services sector including transport, banking, and commerce. The

private informal sector plays a major role in the area's development employing about 81.9% of labour force in the banking and services activities (GSS, 2014). ASEM is endowed with diverse social infrastructure. The intercontinental highway from Lagos to Dakar passes through the municipality. The area has 625 kilometres of road networks including flyovers, interchanges and 65.6 kilometres of pavement (ASEMA, 2022). It has access to all information and communication infrastructure including mobile telephony, radio, and television networks due to its nearness to the national capital, Accra. As a result, GSS (2014) indicates that mobile phones and internet penetration rate among the residents are 68.7% and 8% respectively. In addition, the municipality is endowed with diversity of social facilities and services. It has numerous educational institutions at all levels, police stations, medical facilities, banks, a court complex and market centres. ASEM is connected to the national grid and enjoys stable supply of electricity, and pipe borne water.

3.3 STUDY METHODOLOGY

This section thoroughly explained all the specific procedures and tools used to identify, select, classify, process, and analyse data for the study. It critically evaluated the work's entire validity and reliability, and importantly addressed how data was duly collected, analysed, and presented.

3.3.1 STUDY DESIGN

The general orientation of this study can be described as a cross-sectional mixed method approach. This design typically includes quantitative and qualitative strategies. Creswell (2014) argues that incorporating both strategies give the study a more pragmatic worldview; and provides the opportunity to gather reliable data to generate more insightful and comprehensive findings (Yin, 2009). Fleetwood (2022) defines cross-sectional study design as an observational inquiry that examines data of variables collected at one given point at the same time across a sample population. The approach can be analytical or descriptive (Cvetkovic-Vega, 2021) and be useful

for studies that investigate cause and effect relationships between phenomena (Zangirolami-Raimundo et al., 2018). It is on this premise that a cross-sectional approach became relevant especially when the drivers and challenges of unplanned urban growth were the focus of the study.

3.3.2 THE STUDY POPULATION

The survey targeted inhabitants of ASEM aged 18 or more. That said, 134,728 residents (GSS, 2021), both natives and migrants were considered. The choice of ASEM offered an intersectional dimension to the study due to its population diversity which emanated from migration to the area. The study also focused on key informants such as ASEMA officials, assembly members, real estate developers, community advocates and landowners (traditional leaders) who are key stakeholders in ASEM's urban governance and development process (MLGRD, 2012). This gave the work diverse perspectives to the phenomena being studied.

3.3.3 SAMPLE SIZE AND SAMPLING TECHNIQUES

As previously stated, ASEM has 134,728 residents aged 18 or above who qualified to be sampled. Considering the figure, reaching out to all was impossible. The study therefore adopted a simple random sampling technique to get a representative sample of 385 residents respondents from seven (7) core areas of the municipality. The sample frame consisted of approximately 2,240 unique addresses from the National Digital Property Address System (Ghana Post GPS) within these key areas. The random number generator (RNG) was used to select respondents randomly. The study used individuals to ensure the representativeness of the sample across the population and to obtain higher response rates and greater statistical precision in behavioural terms (Hubrich et al., 2018). The Cochran sample size formula which is considered appropriate for determining sample sizes for large or infinite population (Cochran, 1977) was used.

Cochran formula: $n_0 = z^2pq/e^2$, where,

p is the proportion of the population that has the attributes of the study estimated at 0.5

z is 1.96, which gives a 95% confidence level

e is the desired level of precision (the margin of error which is 0.05)

q is 1-p

Thus, $n_0 = \frac{((1.96)^2 (0.5) (0.5))}{(0.05)^2} = 385$

As earlier indicated, due to time, safety issues, personnel and budgetary constraints, the survey was conducted in seven core areas of ASEM. The communities were selected to reflect the six zonal councils, sociocultural diversity, and peri-urban nature of the municipality. The number of residents surveyed in a particular area was approximately based on its population size (ASEMA, 2022), and the availability and readiness of people to participate in the survey. Hence, the variations in the number of people surveyed in the various communities. Table 3.1 shows the various settlements and the corresponding number of residents that were sampled.

Table 3.1: Distribution of sampled settlements (n = 385)

Settlements	Population	Sample ratio	Percentage	Actual sample
<i>Akweley</i>	17,137	17,137/98,830*385	17	67
<i>Ofaakor</i>	12,943	12,943/98,830*385	13	50
<i>Iron City</i>	14,994	14,994/98,830*385	12	48
<i>Kasoa (Odupon-Kpehe)</i>	14,445	14,445/98,830*385	15	56
<i>Opeikuma</i>	13,444	13,444/98,830*385	14	52
<i>Walantu</i>	16,837	16,837/98,830*385	17	66
<i>Adam Nana</i>	11,744	11,744/98,830*385	12	46
Total	98,830		100	385

Source: Planning Department, ASEMA (2022)

Additionally, non-probability purposive sampling technique was used to purposely identify and select 13 key informants in ASEM whose expertise, knowledge and experience of the issues being studied are vital to the research. Relevant information gathered from seminars with the Municipal Chief Executive (MCE) and Municipal Development Planning Officer (MDPO); and KII with the Municipal Budget (MBO) and Municipal Environmental Health Officer (MEHO) during the 2022 ISSER MA Development Training Workshop fieldworks were used. Table 3.2 depicts the key institutional and community informants purposively sampled within ASEM.

Table 3.2: Key informants sampled in ASEM

Key informant	Number sampled
<i>ASEMA officials (MCE, 2 MDPOs, MBO, MEHO)</i>	5
<i>Assembly members</i>	2
<i>Landowners (Traditional leaders)</i>	2
<i>Real estate developers</i>	2
<i>Community advocates</i>	2
Total	13

Source: Author's construct (2023)

3.3.4 VALIDITY AND RELIABILITY

Galanis (2013) posits that the “validity of a questionnaire is the extent to which the questionnaire measures the outcome study concept or, otherwise, the variate that it is supposed to measure”.

Accordingly, the content validity of the instrument was assessed for consistency and approved.

3.3.5 PRE-TEST OF THE QUESTIONNAIRE

The study instrument was pre-tested at Madina Zongo junction, in the La-Nkwantanang Madina Municipality, using 30 individuals aged above 18 and of diverse socio-economic class. They were purposively selected to reflect those who were used for the study. Madina Zongo junction shares similarities with Kasoa in terms of trading activities, political administration, population and ethnic diversity. A number of issues were observed and noted including skipped questions, misreading,

overlooked instructions, and complex questions. The pre-test enabled the researcher to restructure the study instrument, and revise, correct errors, inconsistencies and ambiguities in the questions. It helped to know the depth of data to collect, and gave an understanding of the potential challenges to encounter on the field and clarity on how to approach in-person and telephone interviews.

3.3.6 INSTRUMENTATION AND DATA COLLECTION

Two major instrumentation techniques, structured questionnaires and interview guides, were used to take primary data for the study (Refer to appendices A, B, C, D and E for instruments used). The survey was conducted from 4th November 2022 to 30th December 2022 to take quantitative data from 385 residents sampled randomly through a flexible face-to-face interview sessions at the convenience of the respondents. Each survey was done between 15 to 20 minutes. Respondents who preferred to fill the instrument themselves were allowed to do so. The key informant interviews (KII) were purposively conducted to take relevant qualitative data from 13 respondents. Interview guides were sent ahead of time and on the scheduled date, the agreed mode of interview, be it in-person or by telephone, was used. The respondents were engaged from 27th January 2023 to 13th February 2023. In-person interviews were scheduled between the hours of 10:00AM and 4:30PM daily while telephone interviews were solely dependent on the availability and convenience of the respondent. Each key informant interview averagely lasted between 25 to 35 minutes. During the interview notes were taken, and on the permission of respondents, audio recordings were made. Data was specifically collected on socio-economic characteristics of respondents and substantive issues needed to answer the research questions. Table 3.3 shows the data sources and data gathering methods used for the study. These methods enabled the researcher to get firsthand information and explore diverse viewpoints from all stakeholders considered for the study. Also, experiential observation of situational issues was used to obtain field data.

Table 3.3: Summary of data sources and collection techniques

Study objective	Data required	Source of Data	Mode of Collection
To find out how residents perceive and understand the concept of uncontrolled urban growth.	The meaning of urban area and urban growth; the form urban growth may take; extent of urban growth	Residents, assembly members, ASEMA officials, community advocates, estate developers, landowners	Interview guide Questionnaire
To analyse residents' perception of the main drivers responsible for the uncontrolled growth of ASEM	Causes and trends in urban growth; reasons and patterns of rural-urban migration; benefits of urban living	Residents, assembly members, ASEMA officials, community advocates, estate developers, landowners	Interview guide Questionnaire
To assess the major challenges imposed on ASEM by its unplanned growth	Social, economic, spatial, climatic and governance problem faced by residents	Residents, assembly members, community advocate, ASEMA officials, landowners, estate developers	Interview guide Questionnaire Experiential observations
To examine how the rapid growth of ASEM can be managed	Mitigating urban challenges, minimise rural-urban migration; urban management	Residents Community advocates ASEMA officials	Questionnaire Interview guide

Source: Author's construct (2022)

3.3.7 DATA ANALYSIS

Data obtained from the survey were input, cleaned, coded, and analysed using Microsoft Excel and Stata at various stages. The findings of the survey were presented using descriptive statistics including percentages, frequencies, mean, mode, tables, crosstabs and graphs. Additionally, notes taken from KII were organised in MS Word while audio recordings were transcribed. Content

analysis was then used to identify patterns in the textual and audio data. Through the iterative process of coding and counting, the frequency of words, phrases and concepts of data were quantified, grouped into identified themes, analysed and interpreted. This enabled the researcher to analyse responses of key informants and make direct quotations under specific themes.

3.3.8 ETHICAL CONSIDERATIONS

The study was done in accordance with acceptable ethical principles of research. The research topic was duly submitted and approved by the Institute of Statistical, Social and Economic Research, University of Ghana, and a supervisor was assigned to guide the conduct of the study. The study was written following the approved research design and guidelines of the University of Ghana, Legon. Therefore, the study used the university's turnitin software to check plagiarism content before final submission. Furthermore, all cited works were appropriately referenced. Regarding authorship, all the contents of the study were written by the researcher and was timely supervised. Respondents were not forced to participate in the study, but on their own voluntary decision. On their acceptance, they were informed of the purpose and benefit of the work. Additionally, data was taken on the principles of confidentiality, anonymity, and privacy of respondents. As such, key informants were assigned coded names during the analysis and discussion section. Finally, an introductory letter was taken from ISSER to ASEMA to enable the researcher to conduct the survey, and KII with both institutional and community stakeholders.

3.3.9 STUDY LIMITATION

The study has three main limitations. First, accessing data from some key institutional respondents was a challenge due to entrenched bureaucratic systems and unwillingness to give information out. As such, the study was redesigned by revising the research questions, adjusting interview guide, and modifying participant selection. Second, time and budgetary constraint were a major

drawback. The strict deadlines and rising cost of transport, coupled with the difficulty in accessing certain parts of the municipal area due to their remoteness and security reasons meant the study was conducted in seven key areas of the municipality. Finally, prior research works on the topic in ASEM are nonexistent. As such, the study developed a completely new research typology which enabled it to identify gaps in literature and explain the need for further studies on the topic. However, these limitations had no impact on the results and findings of the study because the research design and methods adopted enabled the work to reasonably achieve its core objectives.

3.4 CHAPTER SUMMARY

Chapter Three looked at the study area and methodology. The first section of the chapter discussed the profile of ASEM. The subsections elaborated on the geographic, political, and socio-economic attributes of the municipality. An in-depth description of the governance structure, geomorphic features, temperature and rainfall patterns, household size and ethnic dynamics, and economic activities were given. The second section explained the various processes and techniques adopted to identify, gather, and analyse data. The section further delved into the cross-sectional mixed-method research design used for the study and justified why it was most appropriate for conducting the work. The study population comprised residents above 18 and were selected by a simple random sampling technique, while the Cochran sample size formula was used to determine a sample size of 385 for the study. The means of presenting the findings of the study were also stated and discussed. Ethical issues needed to make the work fit for academic purposes were addressed. The major limitations faced during the conduct of the study were also explained. Overall, the chapter provided the tools and procedures used to conduct the study; and the socio-spatial attributes relevant to understanding the growth of ASEM.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 INTRODUCTION

This chapter presents the results of the analysis of data generated from the survey, and in-depth interviews conducted with key institutional and community stakeholders of ASEM. The study aims at investigating the conditions that give rise to uncontrolled urban growth and their related challenges over time. The analysis and discussions were solely based on the responses gathered, which sought to answer all the research questions enumerated in Chapter One. The results were presented using descriptive statistics to display quantitative outcomes, while content analysis was used for qualitative data. The chapter has five sections which reflect the objectives of the study.

4.2 SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

As illustrated in Table 4.1, this section examines the background characteristics of respondents. A total of 385 residents were surveyed through in-person simple random sampling from seven communities within ASEM. Out of this sample, 217 respondents, representing 56.4%, were males and 168 respondents (43.6%) were females. The descriptive analysis of the age categorisation established that the average age of the respondents is 37 years while the modal age is 27 years. The 18-35 age category is the modal age group, accounting for 209 respondents. The elderly age group was the least represented with 7.3% and the middle aged had 38.4%. 92.7% of the respondents were within the economically productive ages. In general, 54.3% of the respondents were youth, which is higher than the national ratio of 43.2% in 2021 (GSS, 2021). This can potentially drive ASEM's population rapidly through early reproductive activities which may induce natural population increase. Similarly, a youthful population has implications for job creation as it can increase the unemployment rate which could ably trigger a surge in crime rate.

Table 4.1: Socio-demographic characteristics of respondents

Variable	Frequency (n=385)	Percentage
Age (Years)		
<i>18-35</i>	209	54.3
<i>36-59</i>	148	38.4
<i>60+</i>	28	7.3
Sex		
<i>Female</i>	168	43.6
<i>Male</i>	217	56.4
Marital status		
<i>Married</i>	182	47.3
<i>Unmarried (Never married, divorced, widowed)</i>	203	52.7
Level of education		
<i>No formal education</i>	34	8.8
<i>Primary (Basic and elementary)</i>	94	24.4
<i>Secondary</i>	66	17.1
<i>Tertiary</i>	191	49.6
Occupation		
<i>Private corporation and industry</i>	72	18.7
<i>Professional</i>	39	10.1
<i>Public and civil service</i>	48	12.5
<i>Self-employed</i>	119	30.9
<i>Unemployed</i>	107	37.8
Place of work		
<i>Within ASEM</i>	131	47.1
<i>Outside ASEM</i>	147	52.9
Years lived in ASEM		
<i><6</i>	114	29.6
<i>6-10</i>	116	30.1
<i>11-15</i>	36	9.4
<i>16-20</i>	75	19.5
<i>More than 20</i>	44	11.4
Housing type		
<i>Compound house</i>	194	50.4
<i>Flat and self-contained</i>	110	28.6
<i>Kiosk and wooden structure</i>	62	16.1
<i>Metal container home</i>	19	4.9
Total	385	100

Source: Field survey (2022)

Furthermore, the results revealed that almost half of the respondents have had tertiary education, while only 8.8% of the respondents had no formal education. Overall, 91.2% have had formal education and were literate or could partially read. In terms of occupational activities, 72.2% of the respondents were employed in various sectors, while 27.8% were unemployed. The analysis show that the unemployment rate in ASEM is higher than the national rate of 13.9% recorded in 2022 (GSS, 2022). Specifically, 30.9% of the respondents or 42.1% of the employed were self-employed in trade, business, or commerce. This confirms the huge opportunities in the informal sector in ASEM (GSS, 2014). The private sector and industry accounted for 18.7%. The public or civil service (12.5%) was the other significant category of occupation that respondents identified with. Out of the 278 respondents who are employed, 52.9% said they work outside ASEM. Thus, they commute on daily basis and add up to the vehicular traffic situation and GHGs emissions. Additionally, most of the respondents (52.7%) were unmarried, while 47.3% were married.

The analysis of the length of stay in ASEM showed that 70.4% of respondents have lived in the municipality for more than 5 years. However, the greatest proportion of respondents, 30.1%, had resided in ASEM between 6-10 years, while 29.6% had lived in the municipality for less than 6 years. The results therefore indicate that majority of respondents have stayed appreciably long in ASEM and could have in-depth knowledge and understanding of the socio-economic, spatial and demographic transformation of the area. Finally, critical to appreciating the socio-economic conditions of respondents is the housing type they live in. The results showed that compound houses were the most common dwelling units in ASEM. Approximately 50% of the respondents live in them. This supports GSS (2014) analytical report on housing in ASEM. Thus, their affordability and availability in all communities make them the preferred home choice for most low-income residents. In addition, flats or self-contained houses constituted 28.6% while kiosks

and wooden structures made up 16.1%. The least common type of housing was metal container homes (4.9%). Additionally, vital information were taken from 13 key institutional and community stakeholders. Table 4.2 presents background details of the key informants used for the study.

Table 4.2: Socio-demographic characteristic of key informants

Key informant (KI)	Age and Sex	Marital status	Education	Designation	Town and years of residence
KI-1	71 years, Male	Married	Tertiary	Traditional leader/landowner	At Ofaakor, lived in ASEM all his life
KI-2	64 years, Male	Married	Tertiary	Landowner	At Kasoa Zongo, resided in ASEM for 40+ years
KI-3	52 years, Female	Married	Tertiary	Community-based advocate	At Peace Town, stayed in ASEM for 17years
KI-4	53 years, Male	Married	Tertiary	Local government representative	Lived in ASEM for 31 years
KI-5	39 years, Male	Unmarried	Secondary	Local government representative	Born in ASEM
KI-6	46 years, Male	Unmarried	Tertiary	Real estate developer	At Adam Nana, lived in ASEM for over 13 years
KI-7	50 years, Male	Unmarried	Tertiary	Real estate developer	At Millennium City, resided in ASEM for 15 years
KI-8	45 years, Female	Married	Tertiary	Private legal practitioner	At Krispol City, lived in ASEM for 21 years
KI-9	Female	Married	Tertiary	Senior district officer	Worked with ASEMA for 3 years
KI-10	Male	Married	Tertiary	Senior district officer	Worked with ASEMA for 5years
KI-11	Male	Married	Tertiary	Senior district officer	Worked with ASEMA for 8 years
KI-12	Male	Married	Tertiary	Senior district officer	Worked with ASEMA for 7 years
KI-13	Male	Married	Tertiary	Senior district officer	Worked with ASEMA for 6 years

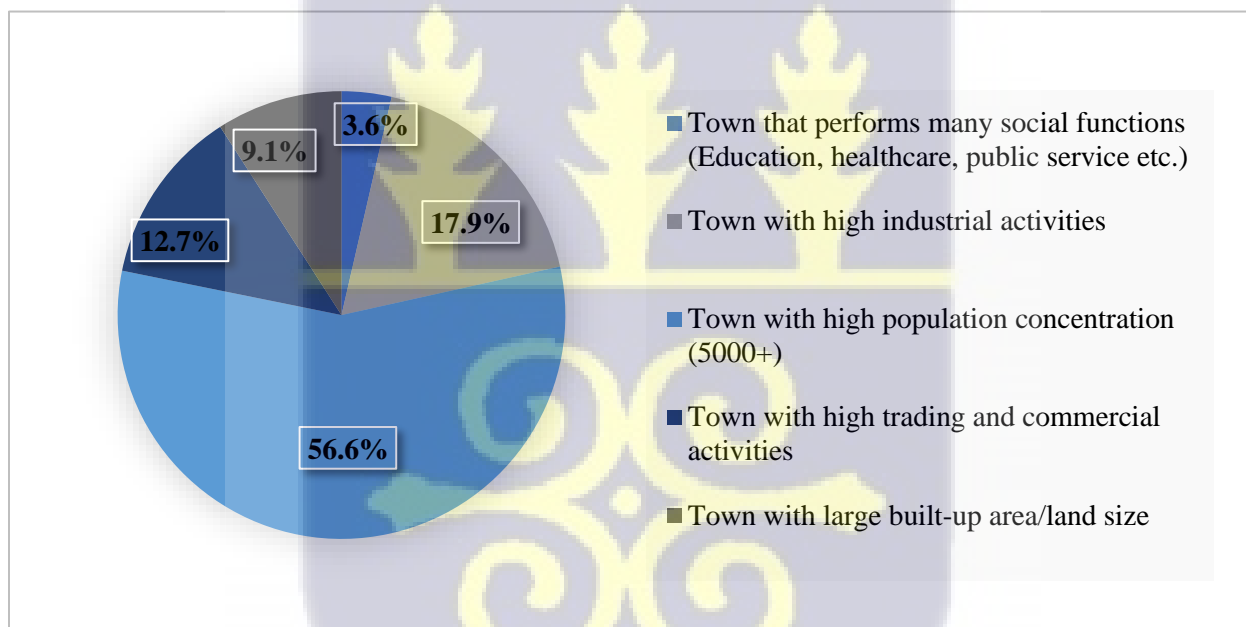
Source: Field survey (2023)

4.3 PERCEPTION OF THE CONCEPT OF UNCONTROLLED URBAN GROWTH

This section fulfilled the first research objective and it sought for respondents' knowledge and understanding of some basic concepts that help to explain and analyse uncontrolled urban growth.

In assessing respondents understanding of what an urban area is, they were asked to select from options the description that they think best explains the concept. The descriptive analysis of opinions, as seen in Figure 4.1, indicates that more than half of the respondents (56.6%) defined an urban area as a place characterised by a minimum population threshold of 5,000 or more people (GSS, 2014). The rest of the respondents classified an urban area using the hyper-diversity criteria. As such, 17.9% associated an urban area with high industrial activities; 12.7% defined it with high trading and commercial activities; 9.1% of respondents likened the concept to a large built-up area; and 3.6% associated it to towns that perform many social functions or services.

Figure 4.1: Respondents’ understanding of an urban area

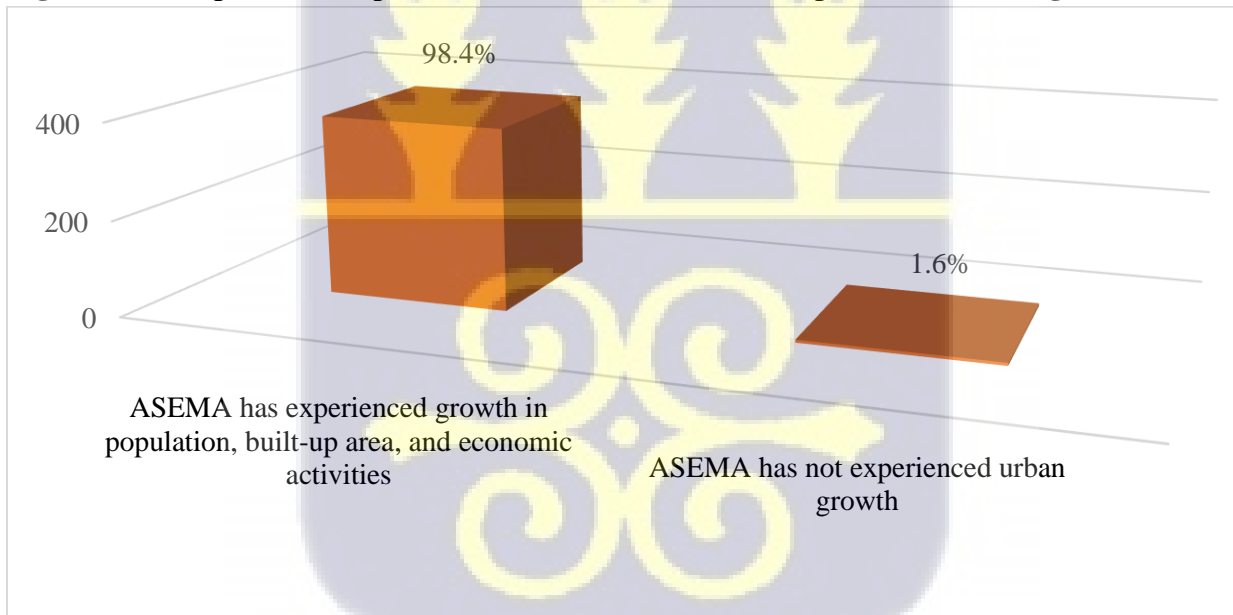


Source: Field survey (2022)

With respect to respondents’ opinions on whether ASEM has experienced urban growth over the past 30 years, an overwhelming 98.4% of the respondents, as graphically depicted in Figure 4.2, confirmed that truly the municipality has undergone multiple growth in its built-up area, population, and economic activities over the stipulated duration. This supports Doe et al. (2022)

that ASEM has witnessed 51.45% spatial increase in its urbanised area through LULCC. It also confirms findings by GSS (2021) that the municipality’s residents more than doubled at an annual change of 7.5% between 2010 and 2021. Regarding ASEM’s growth, KI-7 on 27/1/2023 said *“Kasoa has changed. In fact, it has expanded. The place has really transformed”*. In terms of spatial expansion, KI-1 stated on Saturday, 4 February 2023 that *“The whole place was green. All the places you now see with houses were covered with vegetation. There were few buildings. Only the main village (Odupon-Kpehe) where the traders from Mali and Niger settled had houses”*. Concerning ASEM’s population growth, KI-3 on 9/2/2023 indicated that *“The municipality’s residents have grown so much. Population is high and still increasing. I can say it has doubled”*.

Figure 4.2: Respondents’ opinion on whether ASEM has experienced urban growth



Source: Field survey (2022)

To fully evaluate respondents’ perception of the concept of uncontrolled urban growth, the study inquired of the rapidity of ASEM’s urban growth. As graphically displayed in Table 4.3, the analysis reveals that a great proportion of respondents (81.3%) perceive ASEM’s growth as rapid, which suggests the area is experiencing significant changes in its demographic, spatial, economic,

and social landscape. However, 14% of respondents perceive the rate of growth as moderate while 4.7% deem it to be slow. As noted earlier, ASEM’s swift urban growth is partly due to its proximity to Accra that enables it to enjoy population spillover and serve as a new nucleus that attract new economic activities and residents.

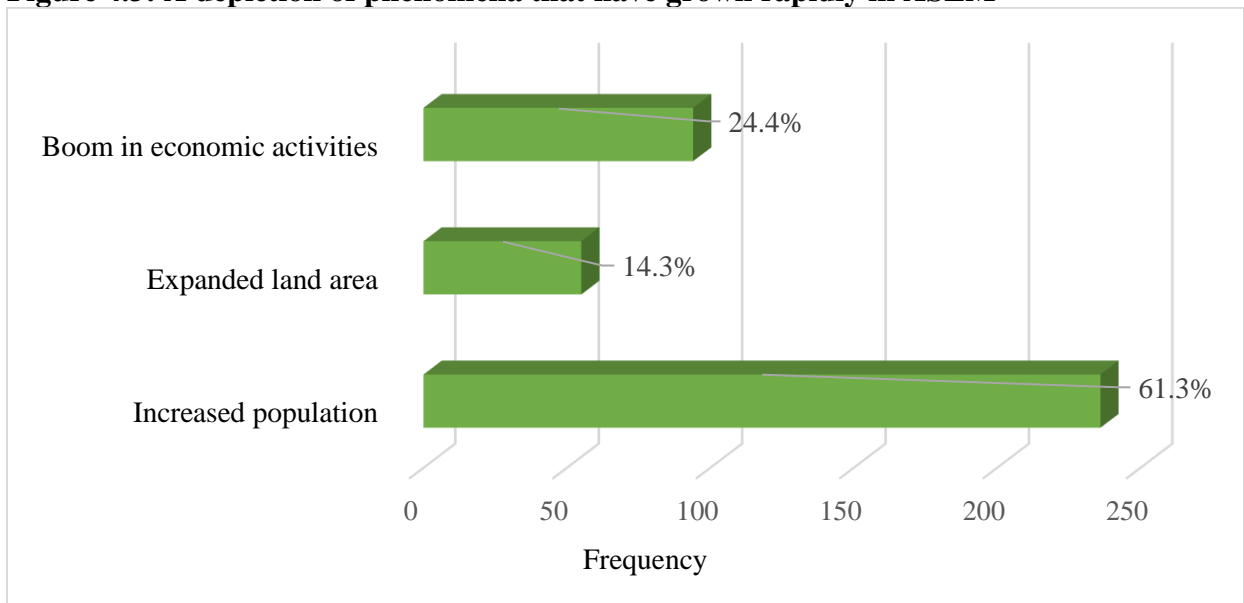
Table 4.3: Respondents’ perception of the rate of ASEM’s growth

Rank	Frequency	Percentage
<i>Slow</i>	18	4.7
<i>Moderate</i>	54	14
<i>Rapid</i>	313	81.3
Total	385	100

Source: Field survey (2022)

Finally, to extensively ascertain the first objective, respondents were asked to state the specific aspect or feature of ASEM that has increased most rapidly in an uncontrolled manner over the years. As indicated in Figure 4.3, the majority of the respondents identified population, which accounted for 61.3%, as the phenomenon that has grown most rapidly in ASEM. This is basically due to population spillover from Accra, in-migration from other regions and natural population increase (GSS, 2014). Economic activities (24.4%) and built environment (14.3%) were the two other phenomena identified to have increased swiftly. Figure 4.4 shows the urban sprawl of the municipality. Contributing to the issue KI-1 alluded, “*I think the number of people living here has really increased. Also, built-up areas have expanded*”. Sharing his views on Thursday, 9 February 2023, KI-2 added, “*It is obvious, the population has increased. On ground you see places that had no buildings now covered with containers or houses. Trading activities have also increased a lot. These were influenced by inhabitants*”.

Figure 4.3: A depiction of phenomena that have grown rapidly in ASEM



Source: Field survey (2022)

Figure 4.4: Aerial view of ASEM showing the Kasoa interchange and its urban sprawl



Source: inGhana Aerial (Aerial view, August 2022)

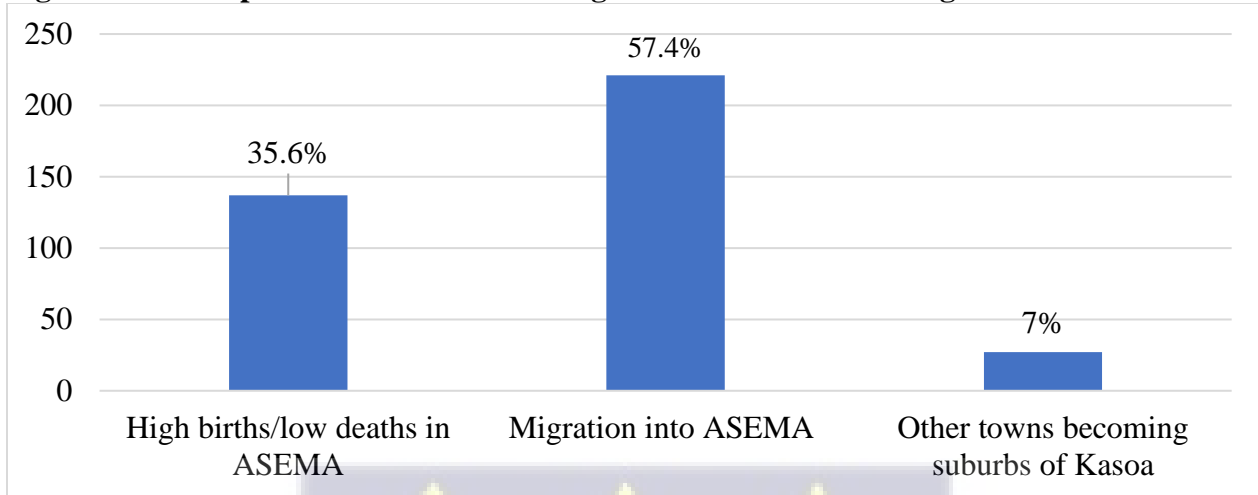
4.4 PERCEPTION OF THE DRIVERS OF UNCONTROLLED URBAN GROWTH OF ASEM

This section presented results that enabled the study to establish the research's objective two. It analysed the perceptions of the drivers responsible for the uncontrolled growth of ASEM over the years. In this regard, the components of urban growth outlined by Farrell (2018) including urban natural population increase, migration and reclassification were examined.

Specifically, respondents were asked to share their perception of the component they think drives the rapid urban growth of ASEM the most. The descriptive analysis presented in Figure 4.5 indicates that migration, both rural-urban and intercity drift, which accounted for 57.4% of the responses, is the main driver of the rapid growth of ASEM. This validates the claim by Awumbila (2017) that a key impact of rural-urban migration in the developing world is urbanisation and urban growth. It also points to the fact that many people have moved to the municipality from all parts of Ghana (GSS, 2014), and outside for socio-economic purposes. Moreover, 35.6% of respondents attributed ASEM's growth to natural population increase. This reflects GSS (2014) findings that the municipality has the second highest general fertility rate of 89.3 births per 1000 women in the Central Region. However, the contribution of reclassification to the municipality's growth was minimal, constituting only 7.0% of the growth. When asked about her views on the reasons for ASEM's rapid population growth, KI-3 indicated, *"I think more youthful people have migrated to this place and a lot of teenagers are giving birth nowadays"*. Sharing his thoughts on the matter on 31/1/2023, KI-6 reiterated, *"I think it is not so expensive to own a property here as compared to Accra. Land that costs a certain amount here will cost 3 or 4 times in Accra or Tema. Kasoa is no man's land, so it offers diverse opportunities to everyone to work, especially in trading"*. KI-10

on Monday, 13 February 2023, added that “*The proximity to the capital city, Accra, and the economic advantage of the municipality*” are key reasons for ASEM’s rapid growth.

Figure 4.5: Perception of the factors driving the uncontrolled urban growth of ASEM



Source: Field survey (2022)

To examine the contribution of migration to the uncontrolled growth of ASEM, respondents were asked to state whether they were born in or migrated to the municipality. The analysis of the residential status, depicted in Table 4.4, revealed that an overwhelming majority of the respondents (94%) migrated from across and outside Ghana to the municipality, while only 6% were born there. This attests to GSS (2014) assertion that ASEM is predominantly (78%) inhabited by migrants.

Table 4.4: Residential status of respondents

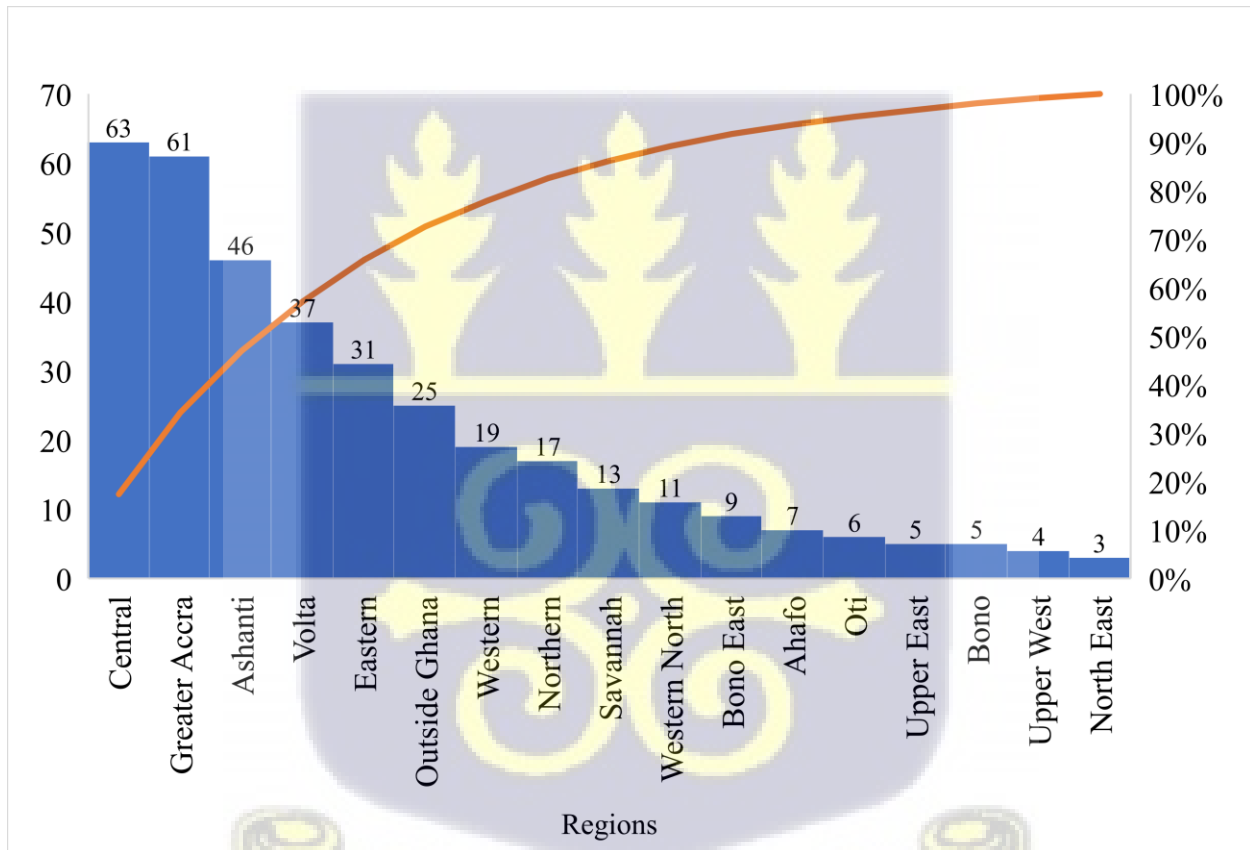
Residential status	Male	Female	Total	Percent
<i>Migrant</i>	208	154	362	94
<i>Natives (Born in ASEM)</i>	9	14	23	6
Total	217	168	385	100

Source: Field survey (2022)

The study then sought to find out the regional trends in migration to ASEM from the 362 migrant respondents. This is illustrated in Figure 4.6. The results show that the six regions with the lowest incidence of multidimensional poverty in Ghana namely Central, Greater Accra, Ashanti, Volta,

Eastern and Western (GSS, 2022) accounted for 70.9% of the migrant population of ASEM. This deviates from Alarima (2018) who concluded that people move to cities due to disparities in resources and lack of opportunities. Furthermore, the Central Region has the highest number of migrants (17.4%) in ASEM partly due to the easy accessibility by residents of nearby districts including Agona, Gomoa, Efutu and Senya West. Greater Accra Region followed with 16.7% mainly due to population spillover from Accra. Respondents who migrated to ASEM from outside Ghana accounted for 6.9% while the North East Region had the least number of migrants (0.8%).

Figure 4.6: Regions from which migrant respondents drifted to ASEM



Source: Field survey (2022)

The analysis of the type of migration undertaken by respondents into ASEM shows that it is 54.4% rural to urban while 45.6% is intercity drifts. Furthermore, migration into the municipality is male-dominated (57.5%) and youth-driven (53.3%). This is represented in Table 4.5.

Table 4.5: Type of migration undertaken by respondents into ASEM

Age Group	Rural-urban migration			Urban-urban migration			Grand Total
	Male	Female	Total	Male	Female	Total	
18-35	58	50	108	52	33	85	193
36-59	51	25	76	30	38	68	144
60+	9	4	13	8	4	12	25
Total	118	79	197	90	75	165	362

Source: Field Survey (2022)

Importantly, the study sought to find out from the 362 respondents who migrated into ASEM, the overriding reasons that influenced them to move. The results indicate that about 3 out of every 10 respondents migrated in search of jobs while 22.4% moved to find accommodation. More males migrated in search of jobs (57.9%) and accommodation (63%) than females, with 42.1% and 37%, respectively. In addition, 93% of respondents who migrated for trading and commercial purposes were youth. These analyses therefore align with the economic and social reasons people migrate to cities as given by Islam et al. (2022). Table 4.6 summarises the results.

Table 4.6: Factors that influenced respondents to migrate to ASEM

Category	Accommodation	Apprenticeship and schooling	Business activities	Job search	Job transfer	Total
Female	30	30	34	45	15	154
18-35	15	19	31	12	6	83
36-59	15	10	3	28	7	63
60+		1		5	2	8
Male	51	31	37	62	27	208
18-35	24	18	35	29	4	110
36-59	23	9	2	26	21	81
60+	4	4		7	2	17
Total	81	61	71	107	42	362

Source: Field survey (2022)

In a bid to answer the second research question and explore the push factors driving people to ASEM, the 362 respondents were asked to state the most propelling condition that existed in the towns (regions) they migrated from to the municipality. The descriptive analysis revealed that, among the many factors mentioned, no jobs and developmental opportunities (39.8%) was the most prevalent condition that pushed respondents out to ASEM. This is consistent with Vargas-Lundius et al. (2014) claim that non-existence of decent and alternative job outlets in rural areas of SSA cause the youth to move to cities. Bad infrastructural base and inadequate amenities such as hospitals, potable water and motorable roads followed with 14.4%. As seen in Table 4.7, more males and females moved due to low farming output, and inadequate amenities respectively.

Table 4.7: Factors that pushed respondents out of the regions into ASEM

Push Factors	Female	Male	Total
Low output from agriculture	16	33	49
Repressive cultural norms	6	11	17
No higher educational institutions	14	20	34
Bad and inadequate infrastructure	29	23	52
No jobs and developmental opportunities	59	85	144
Clampdown on illegal mining ('galamsey')	1	6	7
High rent for housing	6	15	21
Unreliable social services	11	9	20
Unprofitable trading activities	10	5	15
Tribal conflicts	2	1	3
Total	154	208	362

Source: Field survey (2022)

Additionally, the study examined why people preferred to migrate to live in ASEM. The 362 respondents were asked to state the most important condition pertaining to the municipal area that attracted them to move there. The results from the analysis displayed in Table 4.8 showed that a

huge proportion of the respondents (34.8%) moved to ASEM due to employment and income earning opportunities they perceived exist there, especially in the informal sector. Hence, the findings on the push factors of migration to ASEM corroborate Lomoro et al. (2017) and Zergaw and Asale (2019) who found employment to be a key driver of migration in Africa. The huge trading and commercial activities also incentivised people to migrate to the municipal area as 23.5% of respondents cited business activities as the major factor which attracted them to the municipality. This assertion supports Baah-Boateng and Vanek (2020) on the employment and income earning roles of the urban informal sector in Ghana. Cheap accommodation (22.9%) and low cost of living (8.3%) in ASEM were other key reasons for which people moved there. Sharing his views on the issue, KI-10 alluded that *“The presence of economic opportunities attracts migrants”*. He further stated that *“The Central Business District has high trading and commercial activities. It therefore attracts more businesses. The presence of two major markets, that is, Kasoa old market and Kasoa new market boost trading activities.”*

Table 4.8: Conditions in ASEM that made respondents migrate to it

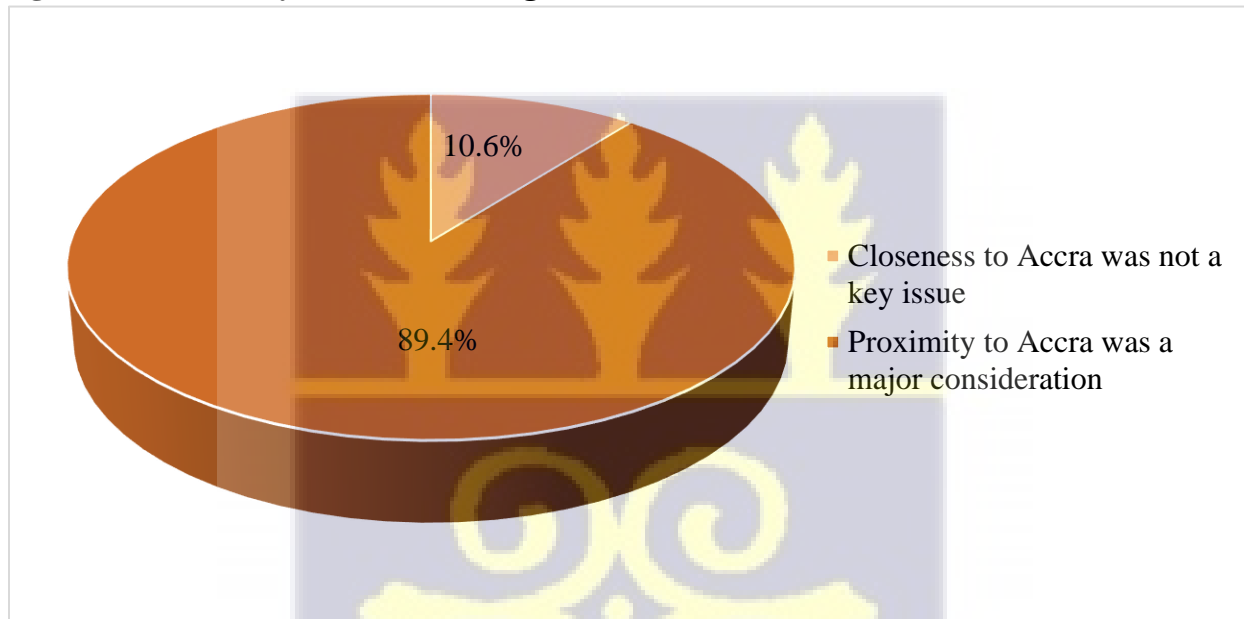
Pull factors	Female	Male	Total
Cheap housing	31	52	83
Business and trading activities	39	46	85
Employment and income earning opportunities	52	74	126
Low cost of living	15	15	30
Access to social and public services	7	14	21
Social infrastructure and amenities	10	7	17
Grand Total	154	208	362

Source: Field survey (2022)

The study further sought to draw an analogy between the proximity of Accra and the rapid growth of ASEM. To ascertain this, respondents were asked if their decision to settle in ASEM was

influenced by its closeness to and the socio-economic influence Accra exerts on it. The descriptive analysis established a significant relationship between the two variables. That is, 89.4% of respondents decided to reside in ASEM because of its proximity to Accra (See Figure 4.7). To this, KI-10 stated that, “Kasoa is 26 km away from the capital city, Accra. Therefore, it is a high residential area for workers in the capital city”. Interacting with ISSER MA students on 17/3/2022, KI-12 revealed, “Kasoa is a dormitory town where people sleep at night and leave for work in other towns, especially Accra, in the morning. Hence, more people at night than daytime”.

Figure 4.7: Proximity to Accra and migrants’ decision to live in ASEM



Source: Field survey (2022)

Rapid urban growth globally is known to contribute greatly to personal, societal, and national development. To this, respondents were asked to rate on a scale of ‘high’, ‘average’ and ‘low’, the extent to which the development of ASEM has impacted on their socio-economic status and livelihoods as at the time of the survey. From the analysis, ‘high’ was rated 58.2%, which indicates that living in the municipality has been beneficial to majority of the respondents due to improvement in their wellbeing. This aligns with Hoffmann et al. (2019) conclusion that urban

centres transform livelihoods and greatly improve the socio-economic conditions of people. As displayed in Table 4.9, three out of every ten male respondents rated the gains from urban living as low while 7 out of every 10 female respondents rated it as high. In response to a question on the benefits accrued to ASEM due to its rapid growth, KI-10 asserted, “*Rapid urbanisation commensurates with development leading to market expansion, establishment of trade, commerce and other social infrastructure such as hospitals and schools*”. Commenting on the same issue, KI-7 stated, “*I earn some money from renting out my apartments and stores to people. You can see that roads have been constructed here. It was not like this when I came here. There is light and so many things that make people choose to live here*”.

Table 4.9: Ratings of benefits respondents gained for settling in ASEM

Rating	Male	Female	Total	Percent
High	102	122	224	58.2
Average	46	6	52	13.5
Low	69	40	109	28.3
Total	217	168	385	100

Source: Field survey (2022)

The study further compared urban living to rural life in terms of their overall socio-economic advantages to respondents and quality of life. As such, the 197 respondents (See Table 4.5) who indicated that they migrated into ASEM from rural communities were asked to state whether urban life offers ‘Better’, ‘Satisfactory’, or ‘Worse’ living conditions. The comparative analysis of the two environments represented in Table 4.10 shows that a significant proportion of the respondents (83.2%) share the opinion that city living is better economically and socially than residing in the rural areas. However, 9.3% of the respondents believe that urban living is worse and unbeneficial.

Table 4.10: Respondents rating of living in ASEM in comparison to rural living

Rating of urban living	Frequency	Percent
<i>Better</i>	164	83.2
<i>Satisfactory</i>	15	7.5
<i>Worse</i>	18	9.3
Total	197	100

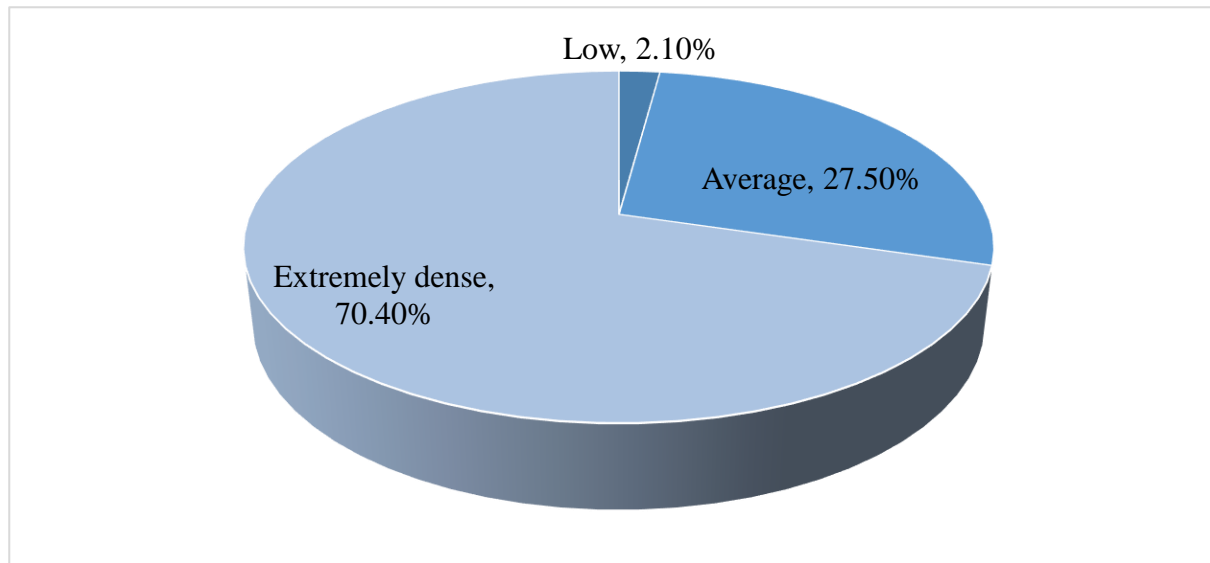
Source: Field survey (2022)

4.5 CHALLENGES IMPOSED ON ASEM DUE TO ITS RAPID GROWTH

This section of the chapter discusses the third objective of the study. It examines the key economic, social, environmental and governance challenges imposed on ASEM by its spontaneous growth.

In examining the major challenges associated with rapid urban growth, the researcher asked respondents to describe the population concentration of ASEM using a rating scale of ‘extremely dense’, ‘average’, and ‘low’. The descriptive analysis in Figure 4.8 shows that, out of the 385 respondents surveyed, the huge majority of 70.4% rated the population of ASEM as ‘extremely dense’. This indicates that ASEM is a densely populated area caused by high in-migration and net positive natural increase. This backs GSS (2021) report that the municipality has the highest population density in the Central Region. Commenting on population concentration of ASEM then and now, KI-2 recounted *“Population was not dense. The area was sparsely inhabited, mostly by the indigenes. Some of the people did not stay permanently. They were traders who brought foodstuffs and livestock for customers in Accra to come and buy. I think the whole area had not more than 6,000 people. Now Kasoa is overwhelmed with residents”*. Adding to this on 6/1/2023, KI-8 stated, *“Population was a bit okay then. But a lot of people have moved in from Accra and other places to settle here. In my estimation about 250,000 people are living here”*

Figure 4.8: Respondents’ rating of the extent of population concentration of ASEM



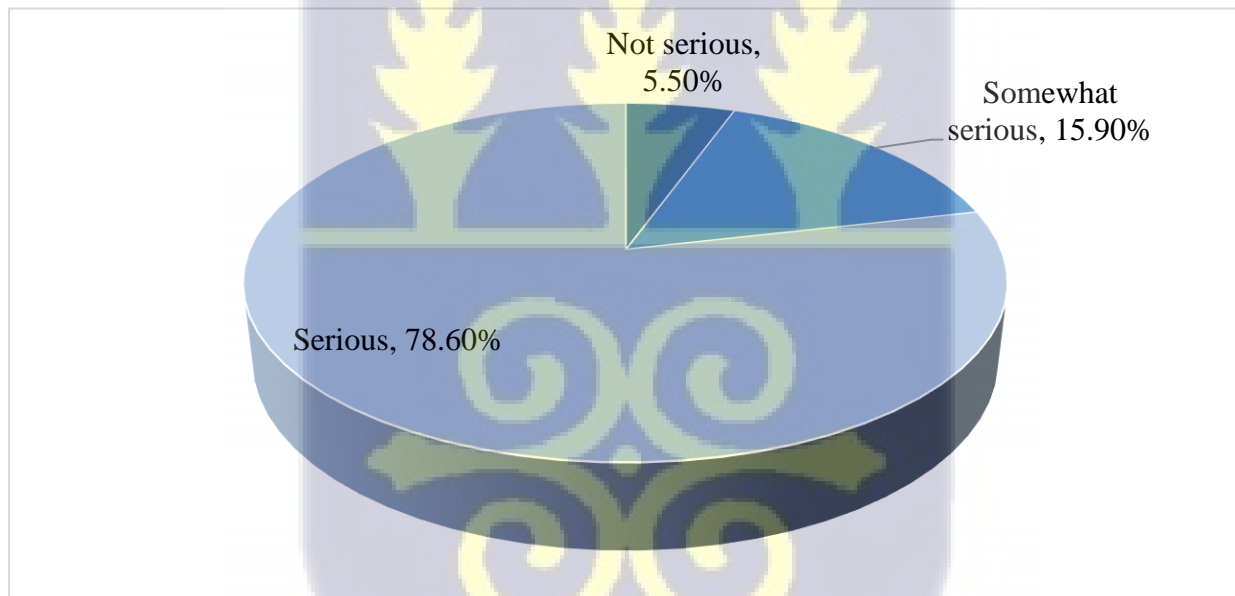
Source: Field survey (2022)

Among the specific challenges the study considered to have serious implications on the urban governance of ASEM were sanitation and waste, security and crime, access to potable water, the rate of vegetative cover loss, climate change impacts and congestion.

To evaluate the sanitation and waste issues in ASEM, respondents were earnestly asked to rate the seriousness of the problem on a scale of ‘not serious’, ‘somewhat serious’, and ‘serious’. The results revealed that 78.6% respondents rated sanitation and waste issues as a ‘serious’ challenge in the municipality, and only 5.5% rated them as ‘not serious’. This corroborates findings by GSS (2018) that urban sanitation coverage in Ghana is low. As noticed in Figure 4.9, a significant proportion of respondents think sanitation and waste are issues of great concern in ASEM as they crucially affect life and health of residents. It was also observed that poor sanitation has adversely impacted on the aesthetic looks of the municipality as heaps of uncollected waste were clearly visible on streets especially within the CBD. As a result, KI-13 on 22/9/2022 alluded, “*The sanitation situation in ASEM is a national security issue*”. Appendix F shows a letter from the

National Security to the ASEMA, on the urgency of the sanitation issue. Expressing his worry over fund inadequacy for sanitation in ASEM on 8/9/2022, KI-11 said, “*Due to inadequate funds, refuse is still on the streets, especially around the CBD area. It is not hygienic. The whole place is messed up and it has health implications. Yet, people still stand in these unhygienic conditions and sell; and we also buy*”. Confirming this, KI-12 said, “*The assembly spends 70% of its IGF on sanitation. It is not enough. It hinders other developmental projects*”. Reacting to the same issue on Monday, 13 February 2023, KI-4 stated, “*I will give the authorities 20% when it comes to waste. We need Zoomlion vehicles, containers, tricycles, and equipment to aid our routine clean-up exercises, but they have failed to provide us. Go to the overhead and old market, the wastes are heaped there*”.

Figure 4.9: Respondents rating of the sanitation and waste situation in ASEM

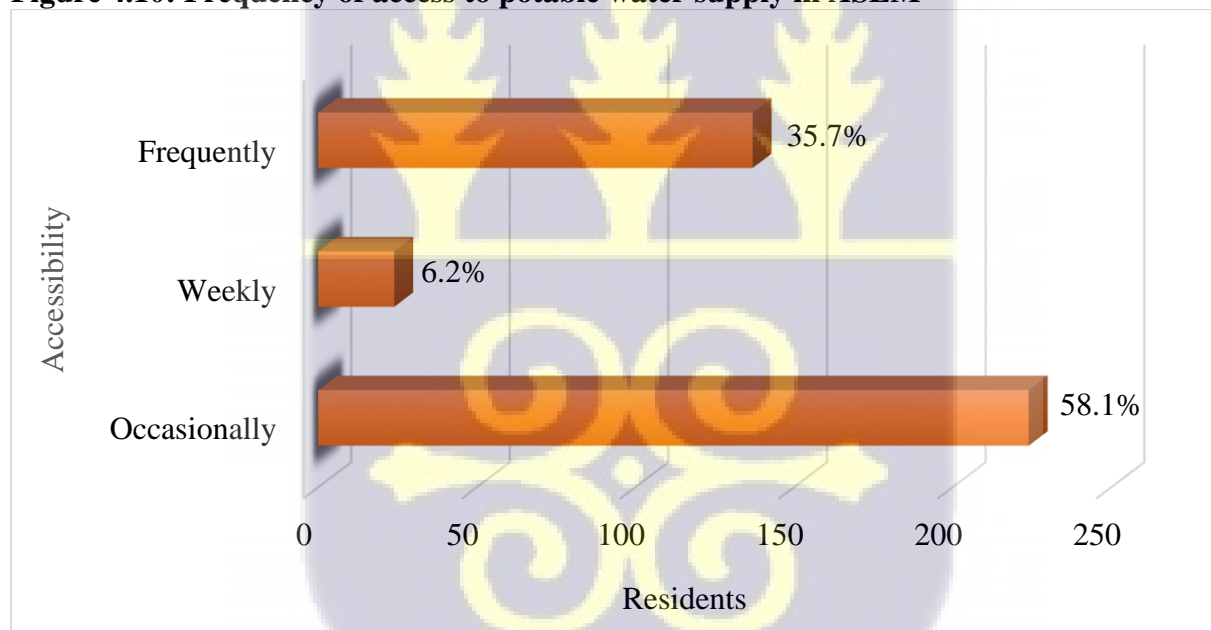


Source: Field survey (2022)

The study also examined residents’ access to potable water supply in ASEM, particularly in the seven (7) communities sampled. As such respondents’ opinions were sought on the regularity with which they accessed pipe-borne water at home or from public standpipes. Approximately, 58% of the respondents indicated that they occasionally have access to pipe-borne water, and a little over

one-third (35.7%) of respondents said that they frequently have access to pipe-borne water. This is vividly explained in Figure 4.10. In a seminar with ISSER MA students on March 17, 2022, KI-9 lamented *“We have done so well with water supply. Our major challenge is the underground water tanks. These people have large underground reservoirs into which they divert water from GWCL pipelines meant for households. Then, they sell them to tankers. It is illegal. We are clamping down on them”*. Commenting on the water supply situation in ASEM, KI-5 pointed out on 6/2/2023 that *“When the water comes, exactly two weeks, they put it off. Also, the pressure it flows with is so low. The water is not clean too. Pipe-borne water must be clean and clear. Kasoa deserves good water. I think Kwanyako and Weija supply points must do something about it”*.

Figure 4.10: Frequency of access to potable water supply in ASEM

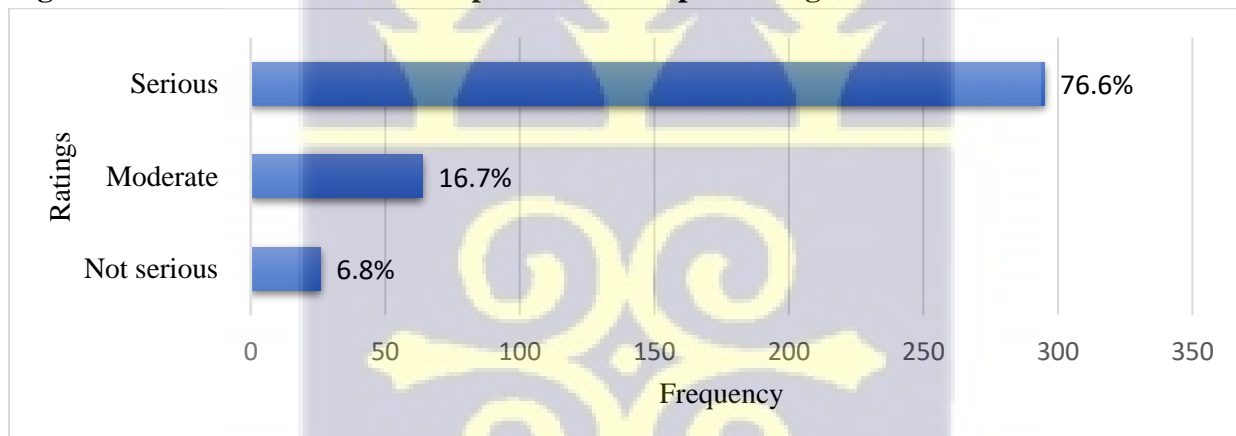


Source: Field survey (2022)

Furthermore, respondents’ views on how uncontrolled urban growth has induced the intensity of vegetative cover loss due to built-up area expansion in ASEM were solicited for. From the data analysis shown in Figure 4.11, the majority (76.6%) of the respondents explicitly stated that the rate of vegetation cover loss which reflects rapid urban sprawl has been fast and serious; with only

6.8% of respondents indicating that it has been slow and not serious. The analysis substantiates the findings of Ke et al. (2018) that the expansion of urban areas has led to more than 80% of natural habitat destruction across various local areas. It also affirms Seto et al. (2012) who aver that the expanse and rapidity of urban growth activities are inducing unsustainable changes in landuse locally. Addressing the issue of vegetative cover loss, KI-7 indicated that *“The rate of expansion is unbelievable. It is very rapid. Estates are developing here and there because of demand from workers in Accra. Kasoa is so large”*. Commenting on the swiftness with which land is being converted for residential purposes in ASEM, KI-6 asserted *“It has been so rapid. Everybody is investing in physical property, so people are really building. It opens up the place. Areas previously covered with vegetation are being converted into residential homes”*.

Figure 4.11: Rate at which built-up areas have replaced vegetative cover in ASEM

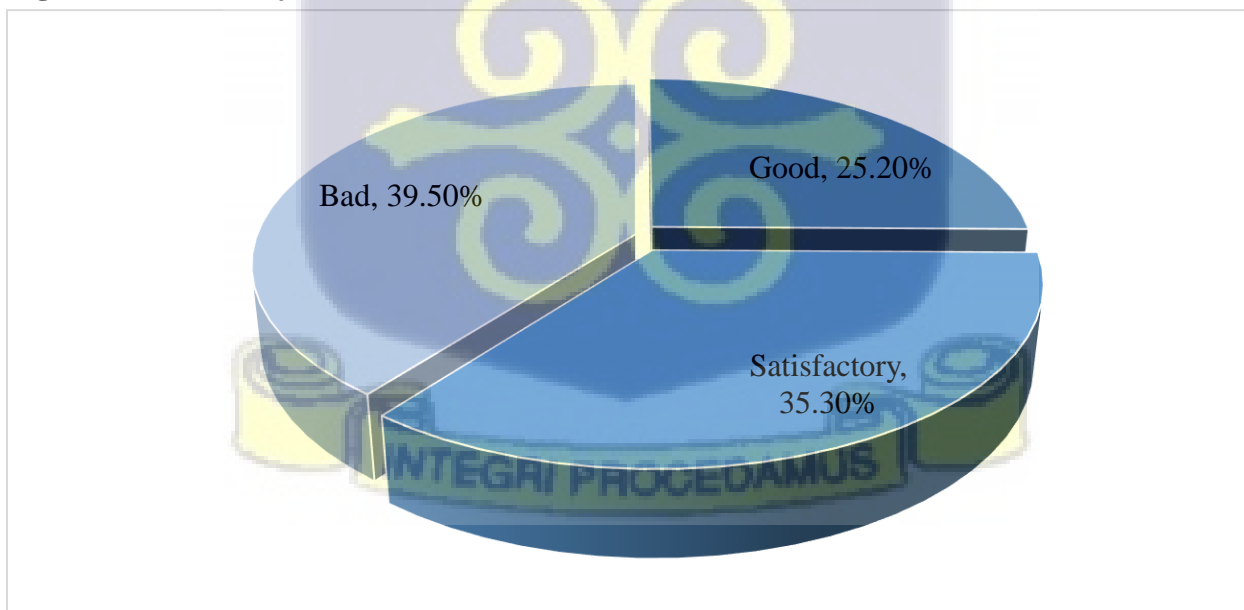


Source: Field survey (2022)

As a major challenge confronting residents and local authorities in ASEM, all 385 respondents were requested to rate the security situation in the municipal area on a scale of ‘good’, ‘satisfactory’ and ‘bad’. From the analysis, 39.5% of the respondents think the situation is ‘bad’, which reflects a very worrying situation that needs urgent attention. This situation is consistent with finding of Obeng-Odoom et al. (2014) that crime and insecurity are reasons for the rising

number of gated homes in urban centres in Ghana. It can also be observed from Figure 4.12 that, 35.3% of the respondents viewed the security situation in ASEM as ‘satisfactory’, while 25.2% rated it as ‘good’, reflecting a near perfect and an acceptable condition respectively. Answering a question on security in ASEM, KI-9 intimated that *“Kasoa is safe. There is security presence everywhere. There is a proposed establishment of a Central East Police command here too. Most of the crimes reported about Kasoa are not from here, but nearby communities which are not part of the municipality”*. On the same issue of security, KI-5 disclosed, *“So far so good. I will use this opportunity to congratulate the police high command in ASEM. They have done so well. When it comes to security in Kasoa, it is very good”*. Expressing her views on the security situation, KI-8 said, *“It is satisfactory here. But have you seen all the walled houses with wired mesh and various security measures? Thieves are here. Security is not the best in some areas”*. To this, KI-4 claimed, *“There are ghettos all over. Foreigners are everywhere; they have brought their bad ways here. What I fear is the rate of fraud and ritual activities. You cannot step out at night in some places”*.

Figure 4.12: Security situation in ASEM



Source: Field survey (2022)

The study also assessed people’s knowledge of the climate change impacts of uncontrolled urban growth. Specifically, respondents were asked about their awareness of the contribution of rapid population growth, economic activities, and spatial expansion of ASEM to climate change. As displayed in Table 4.11, of the three options given, 46.5% of the respondents answered ‘Yes, I am aware’ to show their awareness of the enormity of the impacts of urban development on climate change; while 34% answered ‘No, I am not aware’ to indicate their unawareness of the contribution of urban growth to climate change. However, 19.5% of respondents answered ‘Undecided’ to indicate lack of certainty on the issue. This is consistent with claim by Odonkor et al. (2020) that less than 50% of Ghanaians are aware of the impacts of climate change. On this issue, KI-2 said “The weather is hot every day. You cannot sleep without fan. It does not rain these days in Kasoa”.

Table 4.11: Awareness of the climate change impacts of rapid urbanisation of ASEM

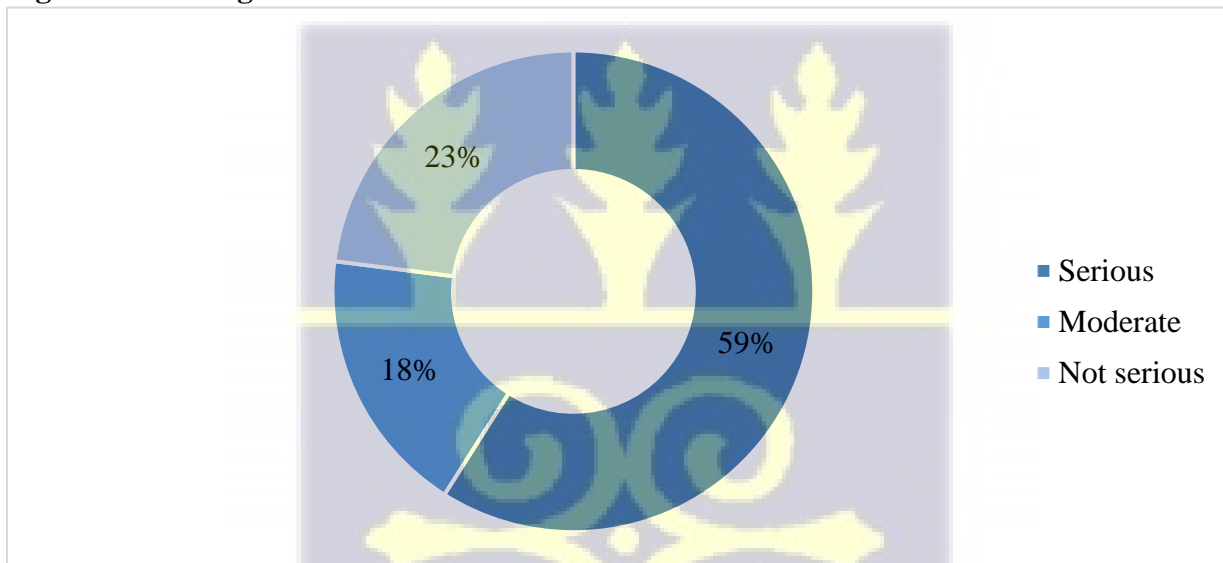
	Unaware of the climate change impact	Knowledge of the climate change impact	Undecided	Total
Female	50	87	31	168
18-35	24	57	10	91
36-59	21	27	19	67
60+	5	3	2	10
Male	81	92	44	217
18-35	47	43	28	118
36-59	29	37	15	81
60+	5	12	1	18
Total	131	179	75	385

Source: Field survey (2022)

Closely associated with the rapid growth of ASEM is the issue of human and vehicular congestion emanating from high population density, and intensification of economic and transport activities. These cause noise, air pollution, and hinder swift flow of traffic. As such, respondents were asked to state the seriousness or otherwise of the issue in impeding movement, service delivery and economic productivity. The result from the analysis, shown in Figure 4.13, indicated that as at the

time of the survey, 59% of the respondents deemed the congestion situation in ASEM as a serious issue. This aligns with assertions by Fattah et al. (2022) that congestion increases travel costs and time. However, 23.1% of the respondents regarded congestion as not serious while 17.9% saw it as moderate. Reacting to the issue of congestion in ASEM, KI-10 emphasised that “*Human and vehicular congestion in the Central Business District still remain a challenge*”. However, KI-4 believes the situation has improved. He said, “*I would like to congratulate the MTTD commander. She has worked so hard. Previously, from Kasoa roundabout to Zongo would take you an hour but now within seconds, you will be there*”.

Figure 4.13: Congestion situation in ASEM



Source: Field survey (2022)

In addition, respondents’ opinions were sought on the broad environmental challenges confronting them in ASEM. Among the 385 respondents who answered the question, 41% named noise pollution as the major challenge facing the municipality. This is largely due to the high population concentration, transport, small-scale industrial and trading activities. Air pollution, representing 20%, and loss of vegetative cover (13.5%) were the other issues that ranked high. Inferring from Table 4.12, it can be noticed that among all the other environmental issues, unplanned spatial

layout (5.4%) was the least mentioned. Answering a question on land degradation in ASEM, KI-8 asserted “*The environment is seriously destroyed as a result of construction activities that clear the land*”. KI-1 added “*There is sand winning. I guess you saw the trucks. So long as buildings and industrial sites are springing up, depletion of land and vegetative cover will continue*”.

Table 4.12: Most pressing environmental issues imposed on ASEM by its unplanned growth

Environmental issues	Frequency	Percentage
<i>Land degradation</i>	23	6.0
<i>Air pollution</i>	77	20.0
<i>Erratic rainfall</i>	33	8.6
<i>Less land for farming</i>	21	5.5
<i>Loss of vegetative cover</i>	52	13.5
<i>Noise</i>	158	41.0
<i>Unplanned spatial layout</i>	21	5.4
Total	385	100

Source: Field survey (2022)

The study also sought for opinions on the general socio-economic setbacks facing ASEM. In this regard, respondents were asked to state the most threatening socio-economic issue that confronts them. Among the major issues identified, most respondents mentioned sanitation (20%) as the most crucial challenge that ASEM grapples with due to its rapid population growth. As displayed in Table 4.13, unemployment (18.7%), congestion (11.4%), and security (10.9%) were the other notable challenges stated. Sharing his views on the economic issues in ASEM, KI-4 bemoaned, “*The government has made life so hard for people here. Anytime I tour my electoral area in the morning, I see children not in school. They complain that their parents do not have money or have been sacked from work*”. He said further “*The youth are always seen playing cards or ludo because*

there are no jobs for them to do. They want jobs. I have about 50 job applications in my room now”. KI-3 also added, “Streetism and public healthcare delivery remain a huge challenge here”.

Table 4.13: Threatening socio-economic issues caused by rapid growth of ASEM

Socio-economic issue	Frequency	Percentage
<i>Security issues</i>	42	10.9
<i>Erratic water and electricity supply</i>	25	6.5
<i>High cost of housing (Rent)</i>	32	8.3
<i>High cost of living</i>	25	6.5
<i>Inadequate social infrastructure</i>	34	8.8
<i>Land dispute</i>	8	2.1
<i>Overcrowding and congestion</i>	44	11.4
<i>Sanitation</i>	77	20.0
<i>Slum/ghetto</i>	26	6.8
<i>Unemployment</i>	72	18.7
Total	385	100

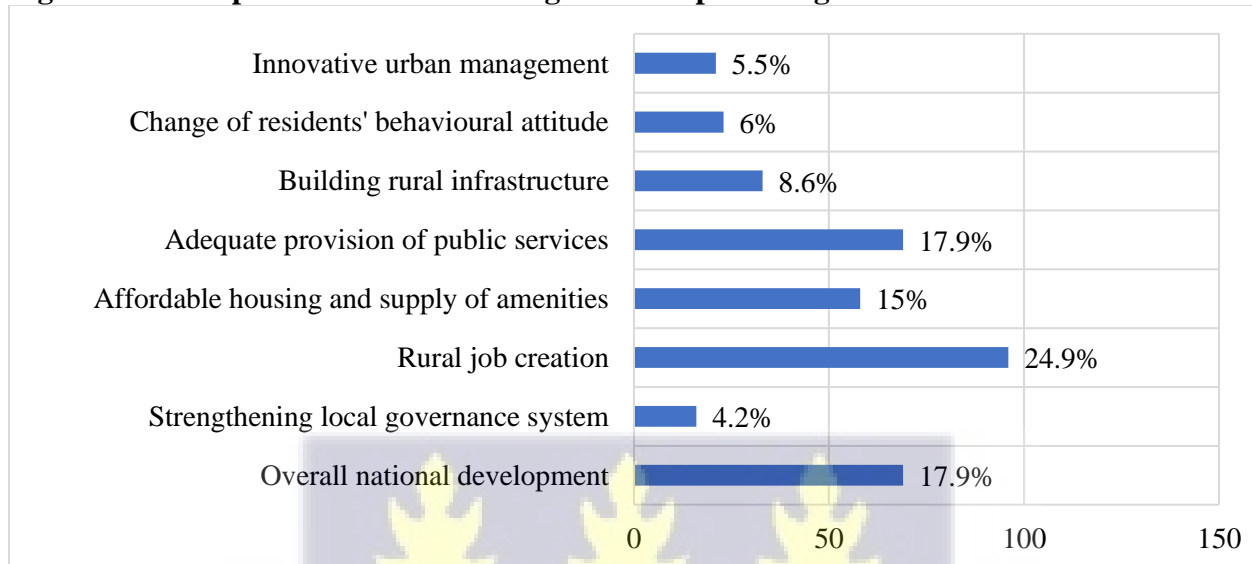
Source: Field survey (2022)

4.6 MITIGATING THE UNCONTROLLED URBAN GROWTH OF ASEM

The overall aim of research is to remedy problems. The final section of the chapter therefore sought from respondents possible ways to sustainably manage the unplanned growth of ASEM and mitigate the challenges it poses to residents. An open-ended question was asked, and the various responses were categorised under recurring themes using content analysis. Of the various themes, rural job creation accounted for 24.9% of the responses; overall national development had 17.9%; adequate provision of public services such as water, electricity, sanitation, and healthcare (17.9%) and affordable houses and sufficient supply of amenities in cities (15%). As seen in Figure 4.14, the results include a mix of urban and rural issues, which reflect the comprehensive and integrated strategies enshrined in the NUP to manage urban development in Ghana (MLGRD, 2012). On how

to manage rapid urban growth, KI-8 averred that “*The involvement of stakeholders in the planning processes, and attitudinal and behavioural change of residents*” is the best way to deal with it.

Figure 4.14: Proposed measures to mitigate the unplanned growth of ASEM



Source: Field survey (2022)

4.7 CHAPTER SUMMARY

The chapter presented the results and discussions of the findings. Descriptive statistics such as charts, tables, crosstabs, and percentages; and content analysis including direct quotes were used in the presentation. The analysis was solely centred on responses from 385 respondents surveyed, and 13 key institutional and community informants. The chapter analysed the socio-economic characteristics of respondents. It then evaluated respondents’ opinion of the concept of urban growth. In addition, the perceptions of the main drivers of uncontrolled urban growth of ASEM were examined. Furthermore, the major socio-economic and environmental setbacks of ASEM’s unplanned urban growth were assessed. The chapter concluded with analysis and insight into the potential ways to mitigate the challenges of rapid growth of cities.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

The general objective of this research was to ascertain the overall effects of rapid urban growth on the development of Awutu Senya East Municipality. As such, 385 residents were randomly surveyed, while 13 key informant interviews were conducted with appropriate institutional and community stakeholders. Data gathered from seminars with ASEMA officials during the 2022 ISSER MA Development Training Workshop were also used. The study employed descriptive statistics such as frequencies, percentages, tables, crosstab, bar and pie charts to give a meaningful visual representation of its findings. Additionally, textual and audio data were transcribed using MS Word and content analysis was used to organise responses into specific themes. This chapter presents the summary of the findings, conclusions drawn, and recommendations of the study based on the specific issues analysed in Chapter Four.

5.2 SUMMARY OF THE FINDINGS

This study specifically sought to achieve four objectives. These were: to know how people perceive and understand the term uncontrolled urban growth; to assess residents' opinions on the factors driving the uncontrolled urban growth of ASEM; to find out the key problems associated with ASEM's rapid growth; and to look out for possible ways the unplanned growth of ASEM can be checked.

5.2.1 PERCEPTION OF THE CONCEPT OF UNCONTROLLED URBAN GROWTH

The study first sought for the most suitable definition of an urban area to enable it to analyse and explain the variables of rapid urban growth in-depth. The study found that the population criterion of 5,000+ is the method that the majority of the respondents (56.6%) adjudged to be most suitable

to classify urban areas in Ghana. The study also established that ASEM has experienced multiple growth simultaneously in its population and economic activities and has undergone tremendous transformation in its surface area with 98.4% of respondents attesting to it. Moreover, the study identified population as the urban growth phenomenon that has increased most astronomically in ASEM over the past thirty years. With reference to the swiftness of ASEM's urban development, the study finds that the rate of growth has been rapid as indicated by 81.3% of respondents.

5.2.2 DRIVERS OF UNCONTROLLED URBAN GROWTH OF ASEM

The study discovered that migration from rural areas and cities into ASEM is the single largest contributor, 57.4%, to the municipality's urban growth. Moreover, 35.6% of ASEM's growth is attributed to urban natural population increase. It was additionally established that the population of ASEM is predominantly non-natives or migrants (94%), which confirms the high rate of migration to the area. The study found that 70.9% of the people who moved to ASEM are from the six regions with low incidence of poverty in Ghana. In addition, the study ascertained that the Central (17.4%) and Greater Accra Region (16.7%) were the places that more people drifted from to ASEM; and proximity played a key role. In-migration from outside Ghana accounted for 6.9% while North East Region has the least number of people drifting to ASEM. It was also discovered that migration into ASEM is 54.4% rural to urban. The study further found that job search (29%) and accommodation (22.4%) were the most important reasons for which people migrated to ASEM. Also, 93% of respondents who migrated for business purposes were youth. It was ascertained that migration into ASEM is male-dominated (57.5%) and youth-oriented (53.3%). Regarding socio-economic conditions that induced respondents to move out of the regions to ASEM, the study found that about 40% of the respondents moved mainly due to nonexistence of employment and self-development opportunities; inadequate social facilities (14.4%), and low

agriculture productivity (13.5%). Similarly, the study revealed that varied jobs and income earning sources (34.8%) perceived to be present in ASEM, huge trading and commercial activities (23.5%) and low rent for housing (22.9%) were the main factors that attracted people to migrate and reside in the municipality. It was further shown that living in ASEM was profiting as it enabled 58.2% of respondents to meet their personal and daily household needs. However, 28.3% of the respondents think residing in ASEM has made them worse off. Related to the above, the study finds that 83.2% of the respondents who migrated to ASEM from rural areas regard city living as more advantageous and would prefer urban living to that of the rural settings.

5.2.3 CONSEQUENCES OF THE UNPLANNED GROWTH OF ASEM

To effectively evaluate the challenges posed by the uncontrolled urban growth of ASEM, the study first examined the area's population concentration. The study established that ASEM is a densely populated area, mainly caused by rapid in-migration. On that basis, the work delved into the specific individual challenges confronting the municipality. The assessment indicated that issues related to hygiene, waste disposal and toilet facilities (78.6%) were so crucial in ASEM. Again, majority of respondents (58.1%) occasionally had access to potable water supply. The study further discovered that the rate of vegetative cover loss to residential activities in the municipality has been quick and enormous (76.6%). Regarding the security of ASEM, the study establishes that the situation currently is not the best as opined by 39.5% of respondents. 35.3% of respondents believed it is satisfactory while a quarter regarded it as good. Crucially, the study finds that less than 50% of respondents are aware of the climate change impacts of uncontrolled urban growth. Critically, congestion was revealed to be a serious impediment to movement and service delivery by 59% of respondents, while 23.1% viewed it as not problematic. Among the environmental challenges facing ASEM, the study finds noise (41%), air pollution (20%) and vegetative cover

loss (13.5%) to be the major issues affecting life in the municipality. Similarly, sanitation (20%), unemployment (18.7%), congestion (11.4%); and security (10%) were identified as the most pressing socio-economic challenges facing residents of ASEM.

5.2.4 MANAGING THE UNCONTROLLED GROWTH OF ASEM

Many of the respondents believed that employment strategies in rural areas (24.9%), integrated national development (17.9%) that incorporates urban as well as rural areas, sufficient provision of social services (17.9%) and provision of adequate social infrastructure and cheap houses in cities (15%) are the panacea for rapid urban development. However, innovative urban management (5.5%) and efficient local governance system (4.2%) were least considered by respondents.

5.3 CONCLUSIONS

Several important conclusions were drawn from the findings presented in Chapter Four, based upon which recommendations were given. The study found that ASEM has undergone monumental changes in its population, land area and economic activities at a rapid pace. The study established that migration is the major driver of the uncontrolled development of ASEM. However, the role of urban natural population increase is relatively important in the municipality. As such, the work finds migration to be the catalyst around which the population growth of ASEM revolves as it indirectly induces the rapidity of urban sprawl and economic growth. The empirical case for these movements into ASEM rests on cross-region analysis of disparities in development. The results revealed that more than two-thirds of the respondents migrated from six multidimensionally rich regions of Ghana. As such, different causal factors, mainly social and economic, have been responsible for the pattern of migration into ASEM. As argued in the findings, urban growth potentially offers a unique window to achieving total socio-economic development. However, given the spontaneity of the growth and the resource constraints confronting urban managers in

ASEM, and Ghana as a whole, this growth is unsustainable; and its governance has become complex and daunting. As such, many residents have been unable to fully harness the benefits of urban living. The analysis of the implications of uncontrolled urban growth has shown that it is a huge sustainable development issue in ASEM, as it threatens economic livelihoods and the environment, and impedes development and governance. Therefore, finding a sustainable approach to managing it is a cumbersome task that requires a multifaceted strategy involving all stakeholders in the urban management chain and a comprehensive urban development policy.

5.4 RECOMMENDATIONS

Based on the conclusions of the study, the following recommendations were made to the government and its appropriate agencies, in a quest to make cities resilient, and urban growth more beneficial and sustainable in Ghana.

1. There should be a commensurate increase in the provision of public services such as healthcare, sanitation, education, water supply, security, and electricity to match up with the rapidly increasing population. As such, government must prioritise and increase its budgetary allocation to district assemblies to enable them to meet the cost of providing these services to their growing populations.
2. ASEMA should urgently embark on a job-creation drive through partnership with the Ministry of Trade and Industry to expand the private informal sector which is the largest urban employer to offset the large but untapped labour force at the municipality's disposal. Thus, the sector should be supported with microfinance facilities to expand and be able to employ more people.
3. The National Population Council must intensify its community-based programmes in ASEM to raise awareness of population and development issues among the large youthful residents to avoid population explosion through early reproductive activities in the nearest future.

4. Government must build the capacity of district assemblies in managing urban areas efficiently and sustainably. This involves the adoption of GIS and remote sensing technologies to monitor social, spatial, economic, and environmental activities of cities undergoing rapid growth.
5. LUSPA and the Physical Planning Departments of MMDAs should enforce the land use and spatial planning regulations and encourage vertical sprawl by promoting high rising buildings. This will prevent unauthorised constructions, curb unplanned spatial development, minimise horizontal sprawl, and effectively reduce land degradation.
6. The government in collaboration with private estate developers should intensify the provision of easy-to-rent houses in ASEM to absorb the numerous low-income earners moving to the area for accommodation purposes.
7. Residents of urban areas, especially ASEM, should be educated extensively by the Environmental Protection Agency and MMDAs on the climate change impacts of rapid urban growth emanating from land degradation, sanitation, vegetative cover loss and air pollution.
8. Residents must participate in the decision-making process of ASEMA to ensure urban development plans and projects reflect their needs. They can collaborate through community projects such as public safety and watch-dog initiatives, clean-up and tree planting activities.
9. To minimise rural-urban migration, government through the MLGRD should heighten the implementation of the NUP, and its already formulated policies and programmes on rural development backed by a strong political will. These strategies include:
 - a. Rural job creation strategies using industry, mining, forestry and modernising agriculture through mechanisation and the plantation system to make it more attractive to rural youth.
 - b. Rural infrastructural drive including the provision of market centres, roads, educational and medical facilities, water supply, electricity, and telecommunication among others.

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APPENDIX A

(Survey Questionnaire)

UNIVERSITY OF GHANA, LEGON

INSTITUTE OF STATISTICAL, SOCIAL AND ECONOMIC RESEARCH

MA IN DEVELOPMENT STUDIES DISSERTATION

QUESTIONNAIRE GUIDE FOR RESIDENTS OF AWUTU SENYA EAST MUNICIPALITY

This questionnaire is designed to seek important primary data for the sole purpose of an academic study conducted on the topic “ANALYSIS OF UNCONTROLLED URBAN GROWTH AND CHALLENGES IN GHANA: A CASE STUDY OF AWUTU SENYA EAST MUNICIPALITY”. Your confidentiality is highly assured, and your support and co-operation are very much appreciated.

Town: **Date:**

SECTION A: SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

SAQ1. Which describes your sex? 1. Male [] 2. Female []

SAQ2. Which age category are you in?
1. 18-25 [] 2. 26-35 [] 3. 36-45 [] 4. 46-59 [] 5. 60+ []

SAQ3. How long have you lived in ASEM (in years)?
1. 1-5 [] 2. 6-10 [] 3. 11-15 [] 4. 16-20 [] 5. More than 20 []

SAQ4. Are you married? 1. Yes [] 2. No []

SAQ5. What is your highest level of education?

1. None []
2. Elementary []
3. JSS/JHS/MSLC []
4. SSS/SHS/GCE O/A Level []
5. HND/NTC/Degree []
6. Postgraduate []

SAQ6. What is your occupation?

1. Self-employed []
2. Private corporation/industry []

3. Professional []
4. Public/civil service []
5. Unemployed []

SAQ7. If you are employed, is your workplace located within ASEM?

1. Yes []
2. No []

SAQ8. Which best describes the housing type you live in?

1. Flat/Self-contained []
2. Compound house []
3. Metal container []
4. Wooden structure/Kiosk []
5. Other, (Specify).....

SECTION B: TO FIND OUT HOW RESIDENTS PERCEIVE AND UNDERSTAND THE CONCEPT OF “URBAN GROWTH”.

SBQ9. In your opinion, what is an urban area? (Most appropriate definition)

1. Town with high industrial activities []
2. Town with high population concentration (5000+) []
3. Town with large built-up area []
4. Town with high trading and commercial activities []
5. Town that performs many social functions (services) []

SBQ10. Would you say ASEM has experienced urban growth over the years?

(Note: The growth in a city’s population, built-up area, and economic activities over time)

1. Yes []
2. [] No

SQB11. Which aspect of ASEM has increased most rapidly in an uncontrolled manner?

1. Population []
2. Built environment []
3. Economic activities []

SBQ12. On a scale of 1-3, how would you describe the rate of Kasoa’s growth?

1. Slow []
2. Moderate []
3. Rapid []

SECTION C: TO ANALYSE THE PERCEPTIONS OF THE MAIN DRIVERS RESPONSIBLE FOR THE UNCONTROLLED GROWTH OF ASEM.

SCQ13. Which of these do you think contributes most to the uncontrolled growth of ASEM?

1. High births/low deaths []
2. Migration into ASEM []
3. Other towns becoming suburbs of Kasoa []

SCQ14. How did you become an inhabitant of ASEM?

1. By birth []
2. Through migration []

SCQ15. If your answer for ‘SCQ14’ is ‘Migration’, for what purpose did you relocate?

1. Accommodation []
2. Job search []
3. Schooling []
4. Apprenticeship []
5. Business activities []
6. Job transfer []
7. Other, specify.....

SCQ16. From which region did you migrate to ASEM?

Region	Tick	Region	Tick	Region	Tick
Ahafo	<input type="checkbox"/>	Greater Accra	<input type="checkbox"/>	Upper West	<input type="checkbox"/>
Ashanti	<input type="checkbox"/>	North East	<input type="checkbox"/>	Volta	<input type="checkbox"/>
Bono East	<input type="checkbox"/>	Northern	<input type="checkbox"/>	Western North	<input type="checkbox"/>
Bono	<input type="checkbox"/>	Oti	<input type="checkbox"/>	Western	<input type="checkbox"/>
Central	<input type="checkbox"/>	Savannah	<input type="checkbox"/>	Outside Ghana	<input type="checkbox"/>
Eastern	<input type="checkbox"/>	Upper East	<input type="checkbox"/>		<input type="checkbox"/>

SCQ17. Is the region selected above where your hometown is located? 1. Yes [] 2. No []

SCQ18. How would you describe the place you migrated from to ASEM?

1. City/urban area []
2. Village/rural area []

SCQ19. What pressing condition in the region (town) you were made you move?

1. No jobs and developmental opportunities []
2. Bad and inadequate infrastructure base []
3. No higher educational institutions []
4. Repressive cultures and traditions []
5. Unreliable social services []
6. Low output from agriculture []
7. Other, (Specify).....

SCQ20. Which conditions in ASEM attracted you to move into it?

1. Employment and income earning opportunities []
2. Business activities []
3. Cheap accommodation []
4. Social infrastructure []
5. Access to basic services []

- 6. Low cost of living []
- 7. Other, (Specify).....

SCQ21. Did you factor ASEM's proximity to Accra in your choice of dwelling place?

- 1. Closeness to Accra was a key consideration []
- 2. Closeness to Accra was not key []

SCQ22. On a scale of 1-3, how would you rate the personal benefits accrued from the urban growth of ASEM? 1. Low [] 2. Average [] 3. High []

SCQ23. Compared to rural areas, how would you rate living in ASEM (urban)?

(To be answered by respondents who selected village/rural area in SCQ18)

- 1. Better []
- 2. Satisfactory []
- 3. Worse []

SECTION D: TO EVALUATE THE MAJOR CHALLENGES IMPOSED ON ASEM BY ITS UNPLANNED GROWTH.

SDQ24. How would you describe population concentration of ASEM?

- 1. Extremely dense []
- 2. Average []
- 3. Low []

SDQ25. How would you rate the sanitation and waste issues in ASEM?

- 1. Not serious []
- 2. Somewhat serious []
- 3. Serious []

SDQ26. How frequent do you have access to potable water supply?

- 1. Daily []
- 2. Weekly []
- 3. Occasionally []

SDQ27. How would you rate the intensity with which built-up areas have replaced vegetative cover in ASEM? 1. Slow/not serious [] 2. Moderate [] 3. Fast/Serious []

SDQ28. How would you rank the crime and security situation in ASEM?

- 1. Good []
- 2. Satisfactory []
- 3. Bad []

SDQ29. How serious is the congestion situation in impeding movement and economic activities?

- 1. Serious []
- 2. Moderate []
- 3. Not serious []

SDQ30. Which of these is the most pressing environmental and spatial issue in ASEM?

Environmental issue	Tick
Noise	
Erratic rainfall	
Air Pollution	

Loss of vegetative cover	
Land degradation	
Unplanned spatial layout	
Less land for farming	

SDQ31. What is the most threatening socio-economic issue from uncontrolled urban growth in ASEM?

Issue	Tick
Sanitation	
Land disputes	
Overcrowding/Congestion	
Erratic water and electricity supply	
Slum/Ghetto	
Crime and security	
High cost of living	
Unemployment	
High cost of housing (rent)	
Inadequate social infrastructure/facilities	

SDQ32. Are you aware that rapid urbanisation contributes massively to climate change?

1. I am aware [] 2. Maybe [] 3. No, I am not aware []

SECTION E: MANAGING UNCONTROLLED URBAN GROWTH

SEQ33. State one major way that governments and local authorities can manage uncontrolled urban growth in Ghana.....

THANK YOU!



APPENDIX B

(Interview Guide for Municipal Development Planning Officer, ASEMA)

UNIVERSITY OF GHANA, LEGON

INSTITUTE OF STATISTICAL, SOCIAL AND ECONOMIC RESEARCH (ISSER)

MA IN DEVELOPMENT STUDIES DISSERTATION

INTERVIEW GUIDE FOR DEVELOPMENT PLANNING OFFICER, ASEMA

This interview guide is designed to seek important primary and secondary data for the sole purpose of an academic study conducted on the topic: “ANALYSIS OF UNCONTROLLED URBAN GROWTH AND CHALLENGES IN GHANA: A CASE STUDY AWUTU SENYA EAST MUNICIPALITY”. Your confidentiality is greatly assured, and your support and co-operation are very much appreciated. I will be grateful if you could make time to answer the questions in this study.

Interview Guide: Municipal Development Planning Officer

1. How long have you been working with the Development Planning Department?
2. How many years have you worked with the ASEMA Development Planning Department?
3. What are your core responsibilities?
4. Can you tell me a brief background of Awutu Senya East Municipality?
5. How would you describe the rate of urbanisation, and the urban growth situation of your municipality?
6. In your opinion, what are the main reasons accounting for the rapid growth of ASEM?
7. Can you explain to me how the following have contributed to ASEM’s rapid growth?
 - a. Rural-urban migration
 - b. Trade and commerce
 - c. Reclassification of Kasoa
 - d. Proximity of Kasoa to Accra
 - e. Urban natural increase
8. How beneficial, both economically, politically and socially, has rapid urbanisation been to the municipality?
9. What are the major challenges confronted by the municipality due to its rapid growth?

10. How is the municipality managing the following issues?

- a. Rapid urban sprawl (Spatial Planning)
- b. Crime and security
- c. Congestion
- d. Sanitation
- e. Water supply
- f. Conversion of arable lands for residential purposes
- g. Slum development

11. What are some developmental opportunities in ASEM?

12. In what ways do you think unplanned urban growth can be managed in Ghana?

13. Do you have any additional comments about the interview?

THANK YOU!



APPENDIX C

(Interview Guide for Assembly Members, ASEMA)

UNIVERSITY OF GHANA, LEGON

INSTITUTE OF STATISTICAL, SOCIAL AND ECONOMIC RESEARCH (ISSER)

MA IN DEVELOPMENT STUDIES DISSERTATION

**INTERVIEW GUIDE FOR ASSEMBLY MEMBERS IN AWUTU SENYA EAST
MUNICIPALITY**

This interview guide is designed to seek important primary data for the sole purpose of an academic study conducted on the topic: “ANALYSIS OF UNCONTROLLED URBAN GROWTH AND CHALLENGES IN GHANA: A CASE STUDY OF AWUTU SENYA EAST MUNICIPALITY”. Your confidentiality is greatly assured, and your support and co-operation are very much appreciated. I will be grateful if you could make time to answer the interview questions in this study.

Electoral area: **Date:**

Interview Guide: Assembly Members

1. What is the name of your electoral area?
2. How long have you been the assembly member of this electoral area?
3. How long have you lived in ASEM?
4. What are your major responsibilities?
5. Tell me a brief background of Kasoa (ASEM)
6. What factors do you think have contributed greatly to the rapid growth of ASEM?
7. What are some major social and economic challenges facing ASEM due to its unplanned growth?
8. Can you elaborate on the following issues:
 - a. Security and crime
 - b. Sanitation
 - c. Water supply
 - d. Slum development
 - e. Social amenities and services

- f. Unemployment
 - g. Population density (concentration)
 - h. Influx of foreigners
 - i. Cost of living
9. Which developmental opportunities has the growth of ASEM brought to the area?
10. In what ways can the rapid growth of ASEM be managed?
11. Do you have any additional opinions to share regarding this interview?

THANK YOU!



APPENDIX D

(Interview Guide for Landowners and Real Estate Developers, ASEM)

UNIVERSITY OF GHANA, LEGON

INSTITUTE OF STATISTICAL, SOCIAL AND ECONOMIC RESEARCH (ISSER)

MA IN DEVELOPMENT STUDIES DISSERTATION

**INTERVIEW GUIDE FOR LANDOWNERS AND REAL ESTATE DEVELOPERS OF
AWUTU SENYA EAST MUNICIPALITY**

This interview guide is designed to seek important primary data for the sole purpose of an academic study conducted on the topic: “ANALYSIS OF UNCONTROLLED URBAN GROWTH AND CHALLENGES IN GHANA: A CASE STUDY AWUTU SENYA EAST MUNICIPALITY”. Your confidentiality is greatly assured, and your support and co-operation are very much appreciated. I will be grateful if you could make time to answer the questions in this study.

Suburb:..... **Date:**.....

Interview Guide: Landowners and Real Estate Developers

1. What is the name of this locality of ASEM?
2. How long have you lived in ASEM?
3. Can you tell me your occupation?
4. Can you describe to me how this place (ASEM) looked like when you first settled here regarding:
 - a) population concentration
 - b) land size/built up area
 - c) economic activities
5. Would you say based on what you have said in Q3, ASEM has undergone some rapid changes?
6. What phenomena or features of ASEM would you say have undergone rapid growth over the period you have lived here?
7. What factors do you think have contributed to this rapid growth of ASEM?
8. What are the major benefits that you gain as landowner or real estate developer from the rapid growth of Kasoa?
9. What are your opinions on the following issues presently in ASEM?
 - a. Access to and price of land

- b. Water supply
- c. Conversion of land to non-agriculture uses.
- d. Land degradation
- e. Land disputes
- f. Cost of accommodation (rent)
- g. Security and crime
- h. Sanitation

10. What are the major spatial and socio-economic challenges faced by residents of this area?

11. In what ways do you think the rapid growth of Kasoa can be minimised?

12. Any further comments about this interview?

THANK YOU!



APPENDIX E

(Community-Based Organisations, ASEM)

UNIVERSITY OF GHANA, LEGON

INSTITUTE OF STATISTICAL, SOCIAL AND ECONOMIC RESEARCH (ISSER)

MA IN DEVELOPMENT STUDIES DISSERTATION

**INTERVIEW GUIDE FOR COMMUNITY-BASED ORGANISATIONS IN AWUTU
SENYA EAST MUNICIPALITY**

This interview guide is designed to seek important primary data for the sole purpose of an academic study conducted on the topic: “ANALYSIS OF UNCONTROLLED URBAN GROWTH AND CHALLENGES IN GHANA: A CASE STUDY AWUTU SENYA EAST MUNICIPALITY”. Your confidentiality is greatly assured, and your support and co-operation are very much appreciated. I will be grateful if you could make time to answer the questions in this study.

Name of organisation..... **Date**.....

Interview Guide: Community-Based Organisations

1. What is the name of your organisation?
2. Can you tell me your position and role?
3. How long have you worked with your organisation?
4. How long have you lived in ASEM?
5. Would you say ASEM has undergone some rapid social and economic changes?
6. What changes or transformations have you noticed?
7. What are the most pressing social issues face by resident of ASEM at the moment?
8. What has been the influence of urban growth on community relationship and cohesion?
9. How has uncontrolled urban growth affected ASEM’s economy and social life?
10. How has rapid urban growth impacted on the delivery of basic services?
11. How have community members been involved in urban growth-related decision-making?
12. Are there any community-led activities aimed at promoting sustainable urban living?
13. Any further comments about this interview?

THANK YOU!

APPENDIX F: Letter on the security risks of sanitation in ASEM

CONFIDENTIAL

MINISTRY OF NATIONAL SECURITY

P.O.Box 1627, Osu -Accra
Digital Address : GA-111-7778
Kindly quote this number and date on all correspondence
My Ref No: NSC 735/1999
Your Ref No: _____
Date: 11TH MAY, 2022.


REPUBLIC OF GHANA

DISTRICT CHIEF EXECUTIVE
AWUTU SENYA EAST
DISTRICT ASSEMBLY
KASOA



HEALTH RISKS POSED BY INSANITARY CONDITIONS AT MARKET AND UNDERPASS

Checks at Kasoa revealed insanitary conditions, particularly at the frontage of the Kasoa New Market and the Kasoa-Cape Coast underpass; a development that poses significant health risks to residents and patrons of facilities.

2. It needs stating that the Kasoa-Cape Coast underpass is a route mostly used by tourists seeking to explore tourist sites in the Central and Western Regions. Consequently, the insanitary condition that characterises the stretch of road could undermine Ghana's tourism prospects.
3. Given the health and socioeconomic implications of the aforementioned development, your outfit is urged to institute stringent measures to enhance sanitation in the said areas.
4. Regards.

Francis
AMB. MAJ-GEN FRANCIS ADU-AMANFOH (RTD)
(NATIONAL SECURITY COORDINATOR)

② MCD/METHO
f. y. atten pls
1st/5/22

③ METHO
pls BU for
discussion. Very
urgent.
23/5



CONFIDENTIAL

Tel: (0) 302 664 631
Email: info@nscs.gov.gh