Sustainable Project Management in Urban Development Projects: A Case Study of the Greater Port Harcourt City Development Project, Rivers State, Nigeria.

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DECLARATION

I certify that the work contained in this thesis, or any part of it, has not been accepted in substance for any previous degree awarded to me or any other person, and is not concurrently being submitted for any other degree other than that of (Doctor of Philosophy) which has been studied at the University of Greenwich, London, UK.

I also declare that the work contained in this thesis is the result of my own investigations, except where otherwise identified and acknowledged by references. I further declare that no aspects of the contents of this thesis are the outcome of any form of research misconduct.

I declare any personal, sensitive or confidential information/data has been removed, or participants have been anonymised. I further declare that where any questionnaires, survey answers or other qualitative responses of participants are recorded/included in the appendices, all personal information has been removed or anonymised. Where University forms (such as those from the Research Ethics Committee) have been included in an appendix, all handwritten/scanned signatures have been removed.

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ABSTRACT

Sustainable urban development is fundamental to future generations as it determines the sustainability of cities and urban infrastructures. The project considers sustainable management of ongoing urban development in Port Harcourt, Rivers State, Nigeria. Urban areas are the future for humanity; therefore, sustainable measures must be taken to deliver such projects. The strategy is a convoluted phenomenon that is dependent on several other intricate developmental approaches like urban renewal and urban regeneration. The strategies are centred on appropriate resource utilisation to benefit critical functional elements of urban infrastructures like transport, housing, health services, water supply, roads and education. The advocacy is that holistic sustainability principles are integrated into designing, planning, executing and managing urban development projects. The approach will significantly reduce the impact of urban decay and unsustainable urban development, which is a common feature across African cities.

This research was aimed at developing a sustainability framework for the Greater Port Harcourt City Development project in Rivers State, Nigeria. To achieve this aim; the objectives were to investigate, identify and examine the factors hindering the sustainability of the projects. The research strategy adopted was qualitative; data was derived from 'semi-structured interviews with 52 stakeholders, non-participant observations of project sites, and document analyses of project reports. Thematic analysis was used to categorise and constructively interpret the data, and they emerged with different themes.

The findings of the study revealed 16 themes that comprise of varied multi-level stakeholders' issues; including lack of communication and stakeholder's consultation, political instability, lack of continuity in government, lack of standardised project design and initiative, social deprivation and many others.

The themes were critically analysed, and it enabled the development of an adaptable model for the urban development project. Successful application of the Sustainable Urban Development Model will ensure the viability of the project, incorporate stakeholders' perspectives at each phase, and mandate compulsory adoption of project management methodologies in urban development projects. These will foster sustainability in the Greater Port Harcourt City Development, and other similar projects in Africa.

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ABBREVIATIONS

PPP	Public-Private Partnership
SUD	Sustainable Urban Development
GPHCD	Greater Port Harcourt City Development

CHAPTER 1: INTRODUCTION

1.1. Research Motivation

This project aims to give an insight into the challenges of sustainably undertaking urban development in an emerging economy. African cities are fast-growing, and so are the infrastructural needs. Hence, there is a need to incorporate sustainability principles in urban development processes. Numerous projects on urban infrastructure have been undertaken in Nigeria, but no significant transformation has been achieved due to unsustainable urban development approaches and practices within the country. Infrastructural projects do not see successful completion, mostly because they are abandoned halfway through, or they are substandard as there are no benchmarks to be met.

The Greater Port Harcourt City development project in Rivers State was selected because of its uniqueness as it cuts across eight strategic communities within the state; the project has a dynamic mix of multiculturalism. Also, the project stands out because of its geographical location as it shares boundaries with other neighbouring states. The urban development project is unique in diverse ways, mainly because it is geared towards developing a series of infrastructural needs across the state; thus, it is a benchmark project within Nigeria. The urban areas also share broader problematic issues with other African metropolitan areas, for example, in its post-colonial situation, infrastructural decay, and lack of social investment. Therefore, the findings of the study have the potential to inform sustainable urban development in other African cities.

Sustainable urban development has significantly attracted global attention in the last two decades. The profound interest of attaining sustainability has spanned across various disciplines (Genus, 2014; Abeydeera et al., 2016). According to Li and Chan (2017), urban development is a term used to describe the physical and positive transformation of soft and hard infrastructures in urban areas. Urban development involves a complex process of urban renewal (Lee and Chan 2010; Chan and Siu, 2015; Nesticò and Sica, 2017); redevelopment, gentrification (Ezema et al., 2016; Zhang et al., 2016), regeneration, and rejuvenation of decayed urban infrastructures (Shen et al., 2014).

Urban development is a complex and costly process that involves building new infrastructures (Barlindhaug and Nordahl, 2018), and ensuring that existing infrastructures are integrated effectively without problems. Therefore, an urban area must be developed in a way that it fosters rapid economic prosperity, social inclusive by significantly benefiting the residents both in the short-term and long-term, and conserve environmental values (Zhang et al., 2016). Nesticò and Sica (2017) posited that the success of urban development is determined by the ability to plan, design and develop a sustainable urban area that will be able to fulfil sustainable development goals (SDGs). Similarly, Strzelecka (2008) postulates that for an urban area to be categorised as sustainable, it must be socially inclusive, ensure urban revitalisation, create social cohesion, spatial justice, and promote civic integration. He further clarified that ecologically it must be able to preserve, conserve and promote the inclusion of the ecosystem; and economically it must be viable from a global perspective by supporting activities that will encourage equitable growth.

Ezema et al. (2016) urban development and urban renewal are concepts that have evolved from the traditional focus of infrastructural development to a sophisticated approach that integrates sustainability principles into urban developments (Nesticò and Sica, 2017; Li and Chan, 2017). In the words of Ford (2015) "existing urban planning and development on the [African] continent has largely failed", hence, there is need to adopt more practical and sustainable approaches to how urban areas are planned, designed and managed (Kozlowski and Yusof, 2016). Lee and Lee (2016) postulate that sustainable urban development approaches should not only meet the needs of the present generation, but it must promote equitable and rational development that will meet the needs of future generations through the reduction of greenhouse gas emission.

According to Simonis (2011), several approaches and strategies are being implemented to actualise sustainable development goals across several inter-disciplines and industrial sectors. The primary aim is to ensure uniformity in attaining sustainable development of urban dwellers. Sustainable development is administered and implemented across a broad spectrum covering all aspects of capital development (Strzelecka, 2008). Therefore, sustainable urban development (SUD) has become a global priority as the international community are concerned about mitigating the issues of climate change and its associated challenges (Simonis, 2011).

Urbanisation is the focal point of most countries, hence, the hinge on strategies like urban renewal, urban development and gentrification (Zhang et al., 2016). Over the years, several approaches and initiatives have emerged as adaptive strategies to combat some of the challenges of urbanism (Shen et al., 2014). Urban development and urban renewal are strategies that can also help mitigate the numerous problems of climate change, such as environmental degradation (Eziyi et al., 2013). According to Chan and Siu (2015), and Eziyi et al. (2013), urban development carried out with a long-term goal must align its approaches with sustainability principles to help reduce the challenges of urban decay and other social, economic and environmental disasters that could erupt as a result to urbanisation, modernisation and globalisation.

Rationally, sustainability principles objectively hinge on providing solutions for issues associated with environmental degradation like urban decay. Urban decay is caused by the breakdown of infrastructures, which mostly occurs because of lack of infrastructural maintenance, resource source depletion, excessive carbon footprint, and urban poverty (Linn, 2010; Akerele et al., 2012). However, the unprecedented growth of population in Port Harcourt is as a result of its geographical location, sharing boundaries with several underdeveloped states. The influx of peoples has significantly contributed to the number of slum development with the city, such degree of underdevelopment will continue to the size of slum settlement, thus urban decay. With an increasing number of underdeveloped areas within and around urban areas, urban decay is expected to become more of a recognised phenomenon in Nigeria, and so are the resultant effects like urban poverty and illiteracy.

Zancheti and Loretto (2015) suggest that sustainable urban development intrinsically reflects the broader goals of what 'sustainable development' stand for as it takes a holistic approach to ensure the urban poverty and illiteracy are addressed significantly; also the conservation of natural resources is advocated; promotes the growth of human capital through knowledge development initiatives; social justice is upheld; it encourages the security of financial capital and the protection of the natural environment is supported (Tabane et al., 2016).

Therefore, sustainable urban development should be an adaptable strategy to mitigate urban infrastructural decay. According to Lee and Chan (2010), it is crucial to consider sustainable development rationale and embed them in any urban development project as it contributes significantly to cities being self-sufficient and self-reliant. Sustainable urban development

should be projecting sustainable project management through the robust mechanism of stakeholders' inclusion, sustainable urban planning, sustainable urban design, sustainable project execution and future maintenance measures.

Consequently, the completed urban area can boast of sustainability in several functional areas of the city, thereby making cities the main drivers of change (Simonis, 2011). For example, a project that ensures appropriate use of land and water will on a long run boost of eco-efficiency and can attain the standard required for a sustainable urban area, and it feasibly considered a liveable neighbourhood. Furthermore, while most urban development plans focus on essential infrastructural growth, it is crucial to state that, sustainable urban development is aimed at improving the standard and quality of life for urban residents (Ford, 2015).

Singh and Debnath (2012, p.121) emphatically maintained that "*The sustainability condition states that projects must assist developing countries in achieving their 'Sustainable Development Goals'*. Based on this, it is significant to recognise that sustainable urban development projects should not just be hypothetically sustainable. Instead, it should be practical and implemented across different sectors in the urban infrastructure. For example, urban development projects must ensure that;

- Public transports are available, affordable, reliable, safe, and where needed to provide viable alternatives, functional road networks or connectivity to boost urban mobility.
- Energy and power supply are obtained from renewable sources, and alternative sources are available.
- Water sources are clean, drinkable, and can also be an alternative route for travel.
- Proper waste management practices are in place such that they provide alternative use as resources for the generation of energy.
- Sanitation is accessible to all.
- Excellent health services are available, accessible and affordable.
- Education is accessible, affordable to all tiers of society.
- Community living is inclusive, organised, safe and equipped with the institutional power to be able to deal with challenges like crime and security within the localities.

- Economic growth is encouraged by creating enabling commercial environment, and trade activities to promote both national and international investments.

Rodriguez (2018) sustainable urban development projects must fulfil its criteria of being eco-friendly, eco-efficient, and socially inclusive regardless of what strategies that were adopted or implemented. Sustainability principles are generic, and they can be applied across different disciplines. Sustainability principles are fundamental, and they are significant in achieving sustainable development goals. The principles are not limited to advocating best practices among different project stages; they inculcate multi-dimensional approaches to sustainable design, sustainable planning, sustainable project execution, and long-term goals of continuous improvement even after the completion of the project.

Consequently, it is essential to integrate sustainability principles into the project management process of the Greater Port Harcourt City Development project. According to Ede et al. (2011, p.1), "sustainability hinge on continual improvement based on accountability, transparency and good governance". Integrating sustainability principles into the project management processes will promote the harmonisation of the three dimensions of sustainability (economic, environmental and social), by incorporating the concepts through the life cycle of the project; from the initiation/ concept development phase to completion phase, and beyond to future maintenance. Embedding these principles will significantly highlight the need to set key performance indicators through the stages and create awareness and the need for collaboration across inter-disciplinary practitioners (Higham et al., 2016).

The integrated approach 'sustainable project management' will enact a necessary level of responsibility to all practitioners and enforces sustainability considerations across the entire life cycle of urban development projects, thereby, encouraging stakeholder's engagement and inclusion. The approach promotes social inclusion through stakeholder consultations (Doloi, 2012), economic viability and environmental feasibility (Jo et al., 2015). Higham et al., (2016) suggest that features of sustainability must be assessed at the feasibility stage of the project, such that takes stakeholders' views, opinions and concerns into considerations during the design and planning phases, and ensure they are involved through the lifespan of the developmental project (Silvius et al., 2012). Jo et al. (2015) posit that feasibility study

conducted determines if the project should be implemented or not, especially for public investment projects like transportation, water, energy and housing.

Furthermore, it puts the onus on various practitioners like civil engineers, project managers, architects and surveyors to conduct a holistic environmental assessment of the land/water use. For instance, before an architect can develop a design, he should ensure that an environmental impact assessment report is undertaken. A quick, professional check like this can promote the incorporation of sustainability principles into practice. Civil engineers could then ensure that they consider the source and the type of raw material to be used and be conscious of reducing its impacts. An urban development project can only be categorised as 'sustainable urban development' if its eco-efficiency and eco-effectiveness goals are achieved. The urban development must consider the three dimensions of sustainability (Silvius et al., 2012), which are geared towards providing a city that is economically self-sufficient, socially inclusive and environmentally safe (Dizdaroglu et al., 2012). Have considered the various criteria for sustainable urban development, the Greater Port City Development projects will be examined to establish if the meta criteria were found as part of the urban development initiative.

1.2. Statement of the Problem

Port Harcourt once had a fantastic environmental, social and economic balance. Now she is home to approximately two million, four hundred people (2,400,000), from different states and countries with diverse culture, language and expectations, the city is overpopulated and has lost its past glory of being the 'Garden City' of Nigeria. Overpopulation is evidently, a significant challenge when addressing urbanisation and modernisation issues. Port Harcourt city is now known for 'unsanitary living' or 'militant's town', unsafe, and economically isolated. Port Harcourt can be categorised as a wounded city, thrown with the fate of unprecedented population growth and unregulated urban development that has pushed the boundaries of development into rural areas (Ezema et al., 2016).

Port Harcourt is a city faced with multifaceted challenges of urban decay such as high density, urban illiteracy, urban poverty, traffic congestion, lack of electricity supply, poor drinkable water, lack of housing, land/water/air/noise pollution, poor sanitation, insecurity, increased crime rate, numerous health issues, impassable roads, food scarcity, and flooding.

The city is a typical example of what can be categorised as ‘a victim of unregulated development’ triggered by a lack of urban development policies and unimplemented municipal development regulations.

After several years of urban infrastructural degradation, in 2009, the Greater Port Harcourt City Development Agency was established to investigate how best to combat the issues of the urban decay. It was identified that the city was suffering from exploding population growth, which has made the urban area unconducive in several aspects. Categorically, the city has lost every atom of its liveability criteria; therefore, to address the issue of urban decay, there is a need to adopt strategies like urban renewal and urban development to transform the city to a sustainable urban area. The Governor of Rivers State, Rt. Hon Rotimi Amaechi maintained that the strategies would transform the city into a Modern 21st-Century town and resort it back to its iconic ‘Garden City’. To achieve this vision, Rt. Hon Rotimi Amaechi appointed a South African Engineering Consultant ‘Arcus GIBB’ to develop a master plan for the development.

The design of the master plan included a renewal of the old Port Harcourt Township and tp developed a new city towards the rural areas of the state; the plan included eight different communities. However, the master plan lacked sustainability credential as there were no benchmarks, functional indicators to be met or address the essential elements of ecological city construction as indicated in the work of Song (2011). The master plan as shown in Figure 1.1**;** the region marked in red was to develop the new city and ‘Arcus GIBB’ developed this plan in eight months with no precise feasibility study conducted, thus several unidentified issues that triggered unrest within the communities. The question is, why use a South African based company to develop a plan for a city in Nigeria? Why the rush to get it done within eight months? Why undertake such a high-level infrastructural development project without a proper feasibility study or impact analysis? The timeframe appeared too short, hasty and unsuitable to conduct a realistic feasibility study. Appropriate stakeholders’ consultation is required to understand the geographical layout of the region, and it is also essential that technical feasibility studies are carried out for environmental assessment. These consultation and analysis are necessary to determine potential risks, generate impact analysis, and interact with stakeholders to understand their needs, and or to follow the intricacy of the different communities that were selected for the development.

The Greater Port Harcourt City Development project is a 50 years' plan that incorporates eight different communities within and around the Port Harcourt city. The earmarked projects were to cut across eight different communities, which technically, makes the development program an urban-rural development. The project mandate categorised the projects to be urban development, but the rural development aspects were not established. Neglecting the difference between urban development and rural development is the first perceived problem of the project, and it indicates that the complexity of developing an urban area and rural areas are not recognised. It is important to emphasise that rural development is distinctively different from urban development, rural area (communities) have their unique identity in terms of culture, ethnicity, religion occupation, traditional beliefs, language, geographical location, and landforms. These are unique and dynamic variables that constitute a robust social structure, and they should be considered the development of the plan.

Figure 1.1 Master Plan of GPHCD

(Source: The Greater Port Harcourt City Development Plan, 2013, p.17).

As a result, the project has encountered series of disruption and threats, factually, it is unreasonable and unrealistic to generically address issues of urban decay without considering the unique social elements of the urban-rural area (Brown and Chikagbum, 2017). According to Fenske (2010), urban development is a complex process, and so are the social elements. If the urban development plan was said to be in accordance to fulfil 'Sustainable Development' goals through the eight-point United Nations Agenda of the Millennium Development Goals, each of these communities is entitled to have a developmental plan that integrates continuous reform in the following areas (WHO, 2015):

- Eradicate extreme poverty and hunger
- Achieve universal primary education
- Promote gender equality and empower women
- Reduce child mortality
- Improve maternal health
- Combat HIV/AIDS, malaria and other diseases
- Ensure environmental sustainability, and
- Develop a global partnership for development.

The question is, how will the eight-point agenda be achieved without incorporating sustainability principles across the project management phases? Sustainable development goals are uncompromising, the policies are clear-cut, and they present distinct shreds of evidence, and have specific indicators. These indications are mostly overlooked in developing cities in Nigeria and across African cities. Cities in other African countries like Ghana, Cameron and Niger encounter similar challenges, as they have the same urban formation.

Community stakeholders are disrupting the project as they think the Greater Port Harcourt City Development projects are politically oriented; the impacts of projects were not carefully considered as they have started suffering the adverse effect resulting from them. Since the commencement of work, several communities have suffered severe flooding, land contamination in some of the villages, experienced dump-site fire outbreak, and others are suffering problems associated to pollution such as the black soot. Stakeholders are concerned that despite the sequence of effects, the government have not seen the need to revisit the

master plan, check what is wrong in the affected areas, inquire why stakeholders are being agitated and insisting for the projects to be stopped, and possibly investigate why the urban development is being considered a threat to the livelihood of these communities.

A careful review of the master plan of the Greater Port Harcourt City Development, it lacks sustainable development indicators, and that categorically, explains why the projects are being disrupted. According to Elenwo (2015), the development plan of the projects seems unrealistic, despite not consulting with stakeholders before the development of a master plan, it is difficult to understand why such a megaproject was being untaken in a rush. The award of contracts did not follow due to diligence; the quality of work was substandard because of the lack of experiences in designing and executing projects. Urban development is a process, the components of the project are complex, and it cannot be considered with hasty decisions as they require variable considerations of different practitioners.

Therefore, there is a need to investigate what is going on with the projects and how sustainability principles can be integrated into the project management processes of the Greater Port Harcourt City Development. The investigation will also enable a clear understanding of approaches to take to resolve the challenges mentioned above and develop a city that will create a healthy living environment for its inhabitants. The consideration of developing an urban area should not only be to build a new city and develop urban infrastructure, but the focus should be on how the Greater Port Harcourt City Development project will be made to achieve sustainability, and how will its objective of regaining its legacy be met.

Although the vision is clear; Greater Port Harcourt City Development project is intended to renew the old city through ‘urban renewal’ and extend the city through ‘urban development’. Regardless, of the strategy adopted it is crucial to develop a sustainable urban area that can provide decent and affordable housing, drinkable water, proper sanitation, networks of roads with excellent and affordable transportation, good education, excellent health service, good commercial opportunities, and address underlying social issues.

1.3. Research Gap(s)

The research gap (s) includes:

- There is a gap in the literature on sustainable urban development in African cities (Koglin, 2009), particularly on factors hinder sustainable urban development in sub-Sahara African cities.
- There is a gap in the literature that addresses how sustainability can be integrated into the project management processes for African urban development.
- The is a gap in the literature of African urban peripheries, how they develop and what parameters of the urban boundary should be considered in a development plan, and what are the sustainability components to be considered in urban-rural cities.

1.4. Research Aim

This research aims to develop a framework to sustainably manage the Greater Port Harcourt City Development Project in Rivers State, Nigeria.

1.5. Research Question(s)

With the aim of the research in mind, the overarching research question is:

"What can be done to ensure that urban development projects are made sustainable in Nigeria?"

To answers the above question, the following sub-questions were formulated as a pathway:

- What are the factors hindering the sustainable urban development of the Greater Port Harcourt City Development project?
- What are the sustainability policies, practices and indicators of the Greater Port Harcourt City Development project? If any, how are they measured and adhered to? If none, how can sustainability principles and initiatives be integrated and implemented in the Greater Port Harcourt City Development project?
- What role can project managers and other interdisciplinary practitioners play in incorporating sustainability into the project management processes of the Greater Port Harcourt City Development project?

1.6. Research Objectives

The objectives of the research study are:

- To investigate how the Greater Port Harcourt City Development Project was initiated, designed and managed.
- To identify and examine the factors hindering the sustainability component of the Greater Port Harcourt City Development Project.
- Recommend best practices to practitioners, and proposed an adaptable urban development strategy to policymakers.

1.7. Research Approach

This study adopted a qualitative research approach, which is centric on inductive reasoning. The study utilised qualitative methods of collating research data; thus, semi-structured interviews were employed to enable the researcher to have an informed knowledge of the case study project. A face-to-face interview session that lasted from 45 minutes to 1 hour was conducted with fifty-two (52) research participants (multi-level stakeholders; six (6) selected from the project sponsor, six (6) chosen from project practitioners, and five (5) selected from the community leaders across the eight communities). The non-participant observation was carried out across five (5) different project sites, duration of ten (10) working days: two (2) days each across the five (5) locations, the observation took place between the hours of 8 am-5 pm. Finally, published reports and the project mandates were analysed to have an in-depth understanding and enable triangulation of data. The entire qualitative research process enabled a thorough understanding of the problem being investigated, and the data gathered from the interviews with the stakeholders' provided a rich insight into the study.

1.8. Scope of the Research

The scope of the study is limited to explore and investigate the issues of the Greater Port Harcourt City Development Project through the following:

- The case study project is an ongoing urban renewal/development project in Port Harcourt, Rivers State, Nigeria. The study was limited to the eight local government areas that the project cuts across: Obio/Akpor, Ikwerre, Etche, Eleme, Ogu-Bolo, Oyigbo, Okirika and Port Harcourt.
- A qualitative strategy 'case study' was employed to gather substantial information and get in-depth knowledge of the Greater Port Harcourt City Development project, and how the different stakeholders perceive the development.
- The study was limited to secondary data from analysing various project document, and primary data was gathered from qualitative data collection methods like semi-structured interviews, non-participant observations. These qualitative methods were adopted to enable the researcher to ask the research participants specific questions that stimulated an open conversation to gather information about how they perceive the projects.
- The study was designed to get empirical data from distinct types of stakeholders like the project sponsors, project management and practitioners from other related fields and community members and leaders. The broad spectrum of stakeholders was selected to have a holistic view, but the varied aspect of their awareness, opinions, perception and knowledge of the concept of'sustainable urban development'.
- The analytical method adopted is thematic, which is designed for emerging with specific themes and patterns that pinpoints the factors hindering sustainable urban development.
- The study also created an avenue for the identification of critical success/failure factors of urban development projects in Nigeria.

1.9. Structure of the Thesis

This thesis consists of eight chapters:

Chapter one is the introduction chapter; explains the rationale of the research, presents the research gaps, the research aim, the research questions asked, research objectives, the research approaches, the research scope, and the structure of the thesis.

Chapter two is the literature review, where relevant academic literature around the subject areas of the research study is covered. It spanned across urban renewal, urban development, sustainability and sustainable project management. It presents an in-depth understanding of the theoretical debates around the subject areas. It also addressed some of the central concepts used in the study and ascertain what ontological stances of urban development theories explain the events of the Greater Port Harcourt city development project. The literature review aided the identification of substantial research gaps in the literature, it also presents a detailed analysis of what other researchers and authors have done within the subject area consequently, and an integrated project management framework for stakeholders' impact assessment was highlighted. Finally, it examined the urban development models that create a narrative to the challenges of the Greater Port Harcourt City Development project.

Chapter three discusses the conceptual issues around industrialisation, pre-colonial era and post colonisation, and narrates how the periods contributed to shaping the development of African cities. It also addresses challenges of the colonial period and how the western urban development models found its way into African cities and the later failure of the models in African cities.

Chapter four is the country context, which presents the specific challenges of the case locations. It highlights the geographic and demographical peculiarities in the country, Nigeria. In this chapter, some of the factors affecting the urban areas were discussed to present a comprehensive narrative of how the city developed, highlight how the slum settlements emerged and took over most of the metropolitan area. It will also present the dynamics and challenges of developing conjoined urban-rural areas.

Chapter five is the research methodology, which presents the philosophical stance of the research study. This chapter also addresses the research processes adopted like the research strategy, techniques for data collection and the method of analysis. Again, it presents a justification of why qualitative approaches are most suitable for this type of investigation. It also presents the ethical considerations of the research and highlights the limitations of the study in a broader context.

Chapter six is data analysis, which presents a detailed interpretation of the collated data. The transcribed data were categorised into different themes for better understanding, and it explicitly describes how participants responded to the interview questions and highlighted the interpretations the researcher made from the information gathered.

Chapter seven is the discussion of findings, which elaborately discusses the results of the empirical research in details. It presents each element of the findings and related them to the theoretical stance of the study.

Chapter eight presents a comprehensive summary of the entire work. Making conclusive statements in terms of the findings by prioritising the contributions to knowledge, highlighting the work accomplished based on the objective of the research, giving directive on the implications of the study, the limitations of the study, and drawing inferences for future research.

1.10. Chapter Summary

This chapter provided a detailed narrative of the thesis, introducing the core elements of the investigation. It presented the statement of the problem, the research gaps, aim, objectives, and the approaches adopted in conducting the research. The next chapter is the literature review that set the scene for the theoretical stance of the study, which is designed to funnel different concepts to emerge with the core theory of ‘sustainable urban development’.

CHAPTER 2: LITERATURE REVIEW

2.1. Introduction

The literature review is based on the diagram in Figure 2.1 below; the literature review provides a critical examination of some core underpinning concepts and theories of urban development. The review aided the identification of current research gaps and supported the development of a revised conceptual model. This novel theoretical framework was relevant to understanding the Nigerian urban context and has been applied in the analysis of the research findings. The literature review elaborates how sustainable urban development can be achieved in emerging economies by adopting sustainable development goals/principles in urban development projects, by practically applying sustainable project management principles, and effectively managing stakeholders by adopting inclusive strategies.

From a broader perspective, a review of initial urban development in Africa literature navigated the study towards looking at industrialisation, urbanisation and colonialization (as discussed in chapter 3). This chapter concentrated on understanding the core elements of urban development and reviewed current models of urban development. It also focused on establishing the characteristics of developments that constitute sustainable urban development. Finally, the main issues affecting sustainable urban renewal projects will be identified in the light of current knowledge, and the research gaps concerning emerging economies will be outlined. The reviewed literature established the challenges of attaining sustainable urban development in African cities; it also provided a different perspective of the study; thus, the integration of sustainable project management approaches.

The novel idea is centric on employing sustainable project management principles in managing urban infrastructural projects to achieve sustainable urban development; to achieve this; a systematic literature review was employed to search for relevant literature that highlighted measures that have been undertaken to achieve sustainable urban development in other urban areas. The search for relevant literature commenced from January 2014 to April 2020, the search engine utilised were Emerald, EBSCOhost, IEEE/IET, ScienceDirect, World Bank, and several other open sources. The search terms included urban renewal, urban development, sustainability and sustainable project

management; and further navigated around other related keywords as shown in the search strategy in Appendix 7.

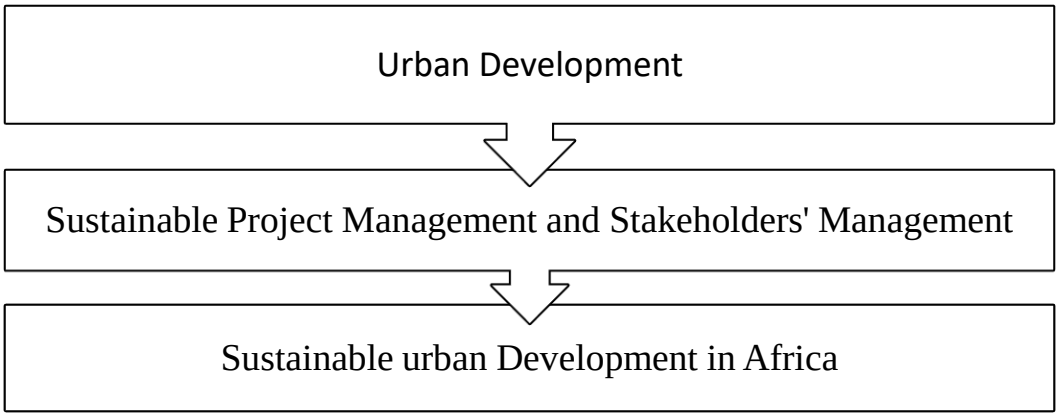

Figure 2.1 The structure of the review

(Source: Author)

2.2. Urban Development

According to Siwar and Kasim (1997), urban development is the rapid transformation of both economic and urban infrastructural growth. It is a process of transforming a city's tangible and intangible infrastructure through several projects, including hard infrastructural project and projects of social benefits. Hard infrastructural projects are substantial developments that change the physical layout of an urban area like roads, houses, rails. Social projects are centric on an initiative to support the social system of an urban area and focused on 'social satisfaction or fulfilment'. Therefore, it is essential to incorporate stakeholders in the development plan of the urban regions, so they can constructively define what development means to them within the context of their social environment and how it enables them to work together (Mason et al., 2017).

According to Li and Chan (2017), urban development approaches can only be accomplished effectively if proper analyses are conducted to determine the root cause of the underlying challenges of the urban issues, define the parameters of the problem, and address using appropriate subjective approaches. According to the World Bank (2011), the definition of 'development' is subjective, but urbanisation has significantly contributed to changing the perception of sustainable development through socio-economic and technological

awareness. Turok and Borel-Saladin (2014) maintain that urbanisation is a pathway towards transforming the world, and such characteristics can lead to urban prosperity and sustainability. Urbanisation integrates other aspects of development, such as economic, environment, and social development. Similarly, Strein et al. (2011), urbanisation also addresses issues of social interaction and behavioural patterns.

According to Weiskel and Gray (1990), industrialisation and urbanisation are two concepts that have significantly transformed soft and hard infrastructural development; they have fundamentally changed how we work, live and think. Gago-Cortes and Novo-Corti (2015) posit that urbanisation is a phenomenon that emerged during the 18th and 19th-century to explain the increasing challenge of rural-urban migration. They further suggested that urbanisation fuelled an unprecedented increase in the level of social, economic, political and industrial activities across different continents. Several cities in Europe encountered prolific levels of economic growth, political upshot and industrial development during the era. Again, Gago- Cortes and Novo-Corti (2015) emphasised that the focal point of the phenomenon was economic development, which triggered population growth globally. The unprecedented population growth in different countries fostered the same level of infrastructural development across developed countries; however, African cities did not witness such growth in their infrastructure. Despite, the increasing number of people moving into African urban areas, no attention was paid to corresponding aspects of needs like agriculture, transport, housing, education, waste management or health services.

According to Raheem and Ogebe (2017), urbanisation is a crucial aspect of development, and relatively it determines the rate of economic growth (Strzelecka, 2008). Urbanisation is driven by several variables that are embedded in theories of population and economic growth and intertwined with technological advancement. Zijdeman (2009) posits that in most countries' urbanisation is measured by the size of the population per thousand inhabitants of a municipality in a year, implying that population census was mainly checked through marriage, birth, death and those who migrated from other towns. An urban area is also developed to fulfil knowledge-based development, which means a strategic development management approach must be in place to take the statistic of birth, death and migration.

This approach undermines other prevailing urban theories that had their stance on urban space, measuring growth base on the landmass. From a theoretical point of view, urban landmass should not be a measurement tool, but it should be dependent on human capital development, such as knowledge (Ejumudo, 2013). Opportunities for knowledge-based development are made available through skilled-knowledge transfer, and evidently, that is a crucial characteristic of urbanisation. Urbanisation is not only focused on physical development, but it is also an integral part of human capital development (Xing, 2016). While the urban area is physically transforming, the people must have the right skill set to maintain growth. This argument became apparent when one considers the rate of progress in countries where knowledge dissemination is central to their developmental plan.

There is an increasing rate of inadequate human capital investment in developing countries like Nigeria. There is a lack of knowledge regarding why things are changing rapidly, and there is a need to change to keep pace with modernisation. Royuela (2015) further posits that urbanisation fosters economic growth that is associated with open opportunities and availability of manufactured amenities. The influx of peoples into urban areas is driven mainly by the availability of technology and modernisation (Allen, 2011). Modernisation in this context is associated with the populous chasing after advancing trend and modern technology. According to Tabane et al. (2016), a large population with skilled workers, craftsmanship, developed trade, strong agricultural base and monumental architecture are some of the significant characteristics of urbanisation.

Gessner et al. (2016) maintained that urbanisation paves ways for economic growth, institutional innovation, and cultural development, and strengthen international integration. Royuela (2014) further pointed out that the increase in industrial activities was because of the pull factor (income differences and employment rate) that created a dynamic agglomeration amongst urban areas. Considering that, several inventions were made in the manufacturing industries; people saw opportunities to better their lives in the nexus of locations (Maltzman and Shirley, 2011). In the same vein, Yigitcanlar (2009) pointed out that knowledge, innovation and creativity are the keys to development and economic prosperity. On the other hand, Weiskel and Gray (1990) posit that rapid urbanisation results in political volatility, which they describe as one of the reasons why the political elite exploit the poor.

Urbanisation has different dimensions, both theoretically and empirically, and the key determinant is from what lens it is viewed. Urbanisation theories have various strands, which includes race, gender, ethnicity, culture and social class. Different scholars have analysed multiple strands of urbanisation, and the truth is they are all intertwined in their advantage and disadvantage. The conflicting issues of the various strands of urbanisation cannot be overemphasised, as they all have common characteristics and effects on urban development. Weiskel and Gray (1990) pointed out that urbanisation has significantly contributed to the collapse of rural agriculture, shirked, and consumed rural spaces, thereby depriving rural inhabitants of the rural resource.

Ejumudo (2013) argues that urbanisation is a destination, and its vehicles are mass communication and transportation. He further pointed out that amidst the process, there are urban dwellers with an active locus of power, influence and control that drives development to urban areas. Although there is a significant gap(s) on how impactful urbanisation in Africa cities, it is essential to highlight that it is daunting and will possibly bring about food scarcity in the future. According to Xing (2016), the continuous humans' migration from town to cities, the consumption of fossil fuel will increase, and the reality is that we will soon be faced with the irreversible outcomes of our resource-intensive lifestyle. Yan et al. (2015) opine that urbanisation is mostly driven by rapid technological advancement, high-tech manufacturing of knowledge-intensive modern and innovative business ideas. They have replaced manual agriculture with machines, especially in the textile industry (Yan et al., 2015).

A growing population that seeks geo-ecological, geo-social, geo-economic, geo-cultural and geopolitical; can trigger a meaningful change in the different strands of urbanisation, but only developmental strategies can enable such growth. A UN Report (2017) states that rural-urban migration is a catalyst for human and capital development. Urban migration is likely to increase in coming years (Tian and Wu, 2014), and the influx will outweigh the capacity of urban infrastructure, thus, urban decay. Urban decay happens when the infrastructure of an urban area is ageing rapidly or broken down, which is mostly caused by overpopulation and overuse. Uncontrolled migration to urban areas encouraged urban decay; therefore, it can be thought of as an epidemic that sweeps across unplanned and unregulated urban areas, especially in an emerging economy (Weiskel and Gray, 1990).

Urban decay in the aftermath of a growing society without any proposition for institutional, innovation and technological advancement. Siwar and Kasim (1997) suggest that to improve the quality of life in urban areas, attention must be paid to the problems of infrastructures. Urban problems including high density, lack of decent housing, traffic congestion, lack of energy supply, lack of security, lack portable water, deplorable sanitation, inadequate health services, and illiteracy. Siwar and Kasim (1997) further postulate that an increased level of urban migration is likely to create a chain of issues around housing, transportation, energy, water, sanitation and food scarcity.

According to Gago-Cortes and Novo-Corti (2015) and Osei and Gbadamosi (2010), poverty is shifting to cities, and shantytowns are multiplying because of political, economic and social issues that hit most of the Sub-Sahara Africa countries. Globally, people are striving to move to urban areas where they perceive could provide them with a better life, Gago-Cortes and Novo-Corti (2015) further pointed out that the strategy of demolishing slums, relocating shantytown dwellers to standard housing was good, but an unsustainable measure.

Royuela (2015) posit that industrialisation, urbanisation and economic development are parallel processes. They are the catalyst for achieving self-sufficient urban areas in developed countries. The question is, can they function within the African context without fundamental shifts in our city formation processes? Ellis and Robert (2016) hold a different view of what is attainable in South Asia, where they pointed out two distinct categories of urbanisation ‘messy and hidden’. The messy urbanisation is said to reflect slum settlement, and the unknown indicates sub-standard urban settlement areas with poor urban infrastructures.

It is crucial to mention that both Africa and South Asian countries are most affected by similar city-forming processes, which are mostly settlement based on the source of livelihood. According to Silvius et al. (2012), sustainability challenges are very concrete, and they should be treated with utmost caution to mitigate further problems that can emerge. Wan and Wang (2014) argued that urbanisation means different things to different people. It only depends on the context, but the bottom line is that it offers a multitude of potentials that can significantly transform infrastructural development and improve the quality of life

of urban dwellers. Strzelecka (2008) added that the contemporary understanding of urban development is associated with building cities and improving the quality of life in the cities.

Urban areas have been, however, credited with development, and creation of opportunities that can potentially improve the quality of life (Shang and Su, 2009). Most people migrate to cities in search of greener pastures such as employment, education, decent housing all in the quest to acquire wealth and attain a social status as a result rural to urban migration is increasing. According to the World Bank (2019), more than 50% of the world's population now live in urban areas, and the number is still growing. Similarly, metropolitan areas have been credited with development and opportunities that can potentially improve the quality of living (Tabane et al., 2016).

According to Nair and Webster (2012), further pointed out that some pull factors determine rural to urban migration. The pull and push factors are two key drivers that encourage urbanisation (Bilham-Boult, 2001). Pull factors are opportunities that support people to move to a new city or country, Xing (2016) they are enticed by the availability of soft and hard infrastructural developments that can improve the quality of their lives. Such factors include affordable and decent housing, road, security, good health care, increased economic opportunity, good transportation, good water and electricity supply, safe environmental condition, proper sanitation (Fortel et al., 2014). Push factors are dreadful conditions that make people want to leave their dwelling places in search of a better life, which is often categorised as lack of infrastructure development mainly fostered by violence, social conflict, natural catastrophes, lack of job opportunities, poor sanitation, lack of decent and affordable housing, lack of proper road and transport, lack of healthcare, poor environment, lack of educational institutions, lack of water and electricity supply. An example of a push factor of urbanisation is the migration of Syrians to nearby European countries due to war. Migration often overlaps with urbanisation, but it is a different process.

According to Franz (2015), urbanisation as a practice encouraged mass migration into cities, and it has created unanticipated problems; such as pollution and unsustainable construction (Ye and Wu, 2014). The spurt in population stirred an overwhelming demand for advanced technologies in most urban areas; the available technology gradually became under capacity, which resulted in the over-stretch of existing infrastructures. Available infrastructure can no

longer support the growing population in most African cities, thus contributing to urban decay. Weiskel and Gray (1990) posit that rapid urbanisation produces a politically volatile situation and can contribute to a significant range of challenges including, agricultural collapse. The collapse of agriculture in rural areas is one of the adverse effects of unsustainable practices like overgrazing, over-cropping, bush burning and deforestation.

Yao et al. (2013) emphasised that "urbanisation is an inevitable course of social and economic development, and it is an important mark to measure the economic development level and the modernised civilisation level of a country or region". Their statement echoes how vital urban development in accelerating the social and economic development of a country. On the other hand, urban areas that fail to support economic growth and development inevitable hinders the ideology of development, thus urban decay. Urban decay is driven mainly by an informal settlement that builds up to become slums or shantytowns. Such slum areas are mostly around central business districts that eventually results in permanent suburbs. The aftermath of rural-urban migration is urban decay, which a byproduct of mass infrastructural decay. Poor sanitation; scarcity of food; expensive housing; shortage in the provision of essential amenities; pollution; traffic congestion, unemployment, expensive health care and inadequate solid and sewage waste management are some of the consequences of unprecedented population growth as a result to rural-urban migration.

As observed by The Institution of Civil Engineers (1988), there is a unique characteristic of urban areas in Africa; they are all experiencing mass rural-urban migration, which increases the rate of urban poverty and illiteracy. According to Cook et al. (2005), believe that rural-urban migration will subside, and with time the adverse effects on urban growth will turn around for good. The question is how and when will that happen? Zavattaro (2014) cities in developed countries are getting better, more significant, and implementing policies that are tilted towards achieving sustainability, but this cannot be compared with cities in developing countries.

Cities in developing countries are deteriorating as they challenged with unbearable environmental degradation and other issues associated with climate change. The Institution of Civil Engineers (1988), also pointed out that urbanism is a changing trend, as a shift in

the structure of the national economy tends to affect the chances of having a better life. Thus, it is essential for different institutions to be integrated, to work together to maintain consistent progress across all sectors of the urban area.

2.3. Theories of Urban Development

There are different urban development models, and they have been adapted uniquely in several cities.

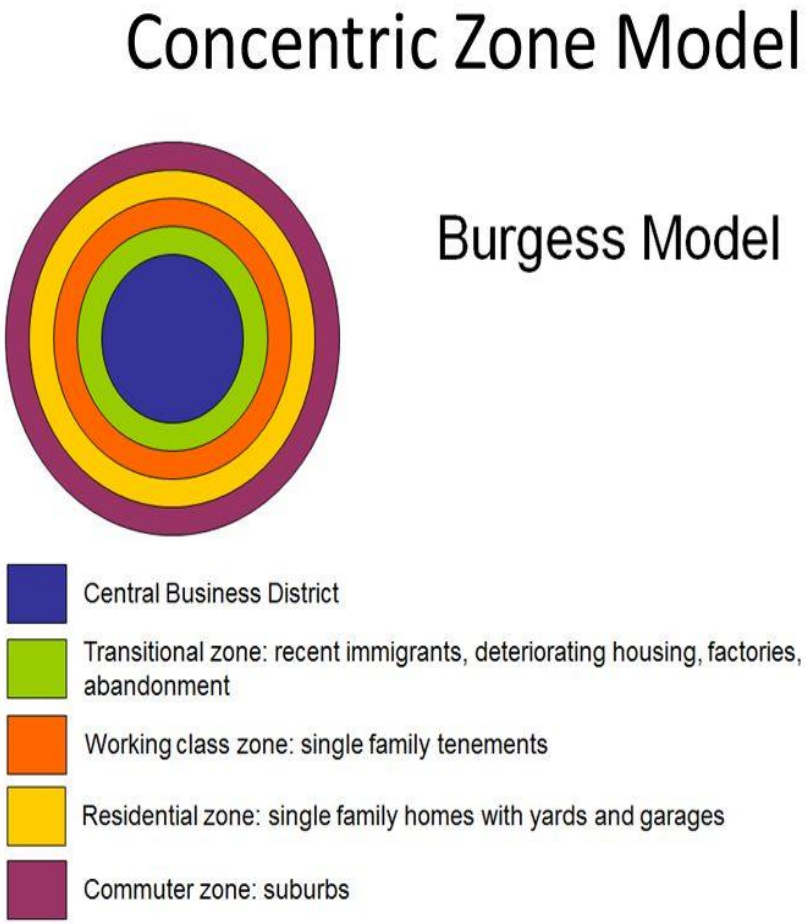

Figure 2.2 Concentric Model or Burgess Model

(Source: Rodrigue, 2017)

The Concentric Zone model or Burgess Model was developed in Chicago between 1925 and 1929, and it was tailored to suit the settlement pattern of different social groups. As illustrated in Figure 2.2, the concentric zone model identifies the central area of the city as the central business district, and that is the region where expensive houses are often found. However, the model demonstrates that the surrounding areas are covered by squatter settlements, which in the case of African cities, they are rural areas. The shift in paradigm has considerably stirred development around the globe, especially in developed countries. These issues have been considered and incorporated into the current model for optimum urban development, which will be discussed in the next section.

Nevertheless, urban renewal and development projects must thrive on meeting the intended purpose, which is to increase the quality of life for urban dwellers (Chan and Siu, 2015). In doing so, it is also, critical that the development stays within the parameters of a defined urban area and the capacity of supporting the ecosystem by employing environmental management systems to assess and evaluate impact levels. Such measures will ensure that human settlements are sustainable, resilient and functional within its capacity through sustainable transportation, housing, education and energy. According to Eco city scholars like Joss et al. (2012), an eco-city is functional and dynamic in the way it is modelled; it seeks to provide supportive lifestyle as it reflects sustainability principle of equity conservation, social fairness, justice and happiness. The city should indicate full integration such that no aspect of the ecosystem undermines itself or the other.

It is crucial to note that the Burgess Model does not reflect the pattern in which African cities appear to develop. The defined structure of having central business districts with educational facilities, health services, businesses; Housing and industries; Low-class residential; medium class residential; High-class residential contradicts the way African cities develop. Typically, African cities are multifunctional in their settlement patterns as they are mainly affected by the geographical boundaries of the urban site and by the hierarchy of the urban area. Unlike cities in the developed West, African cities have urban peripheries that are predominately rural settlements, and they control the dimension of development due to the strength, power and influences of the indigenous stakeholders.

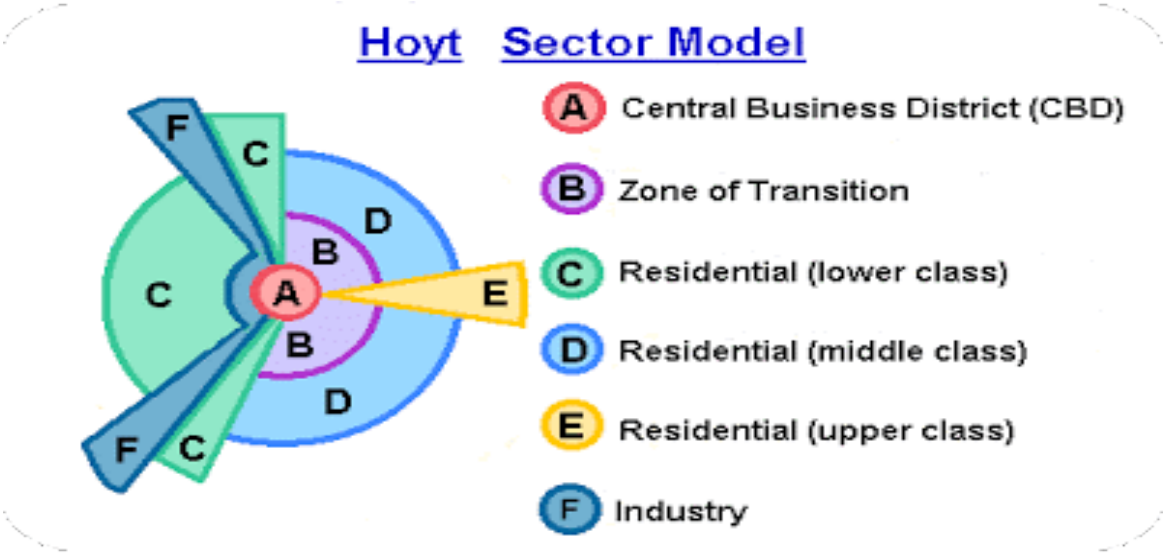

Figure 2.3 Sector Model or Hoyt Model

(Source: Settlement Geography, 2017)

The later Hoyt Model reflects the settlement pattern, but it still had a high level of segregation in how land-use was proposed. Creating factories and manufacturing centres again encourages the invading peri-urban towns and villages. They are shedding light on how cities in Nigeria, develop around critical functional infrastructures like waterways, airport, and transport towns (Rodriguez, 2018). Wang (1999) posits that rural urbanisation distorts socioeconomic activities of rural areas, with declining agricultural activities and the loss of biodiversity, the rural features are being replaced with urban features. The Greater Port Harcourt City Development projects reflect such issues as different projects have drastically displaced the cultural heritage of different communities.

Similarly, rural urbanisation affects the economic capabilities of communities engaged in primary activities like farming, fishing and forestry and mining. Rural urbanisation is reported to have significantly harmed the environment, and this is a major contributing factor to environmental degradation (Wang and Dong, 2019). On the other hand, it can be argued that rural urbanisation contributed to the issue of food scarcity and the increasing rate of poverty in most urban areas as most primary skills get lost in transit.

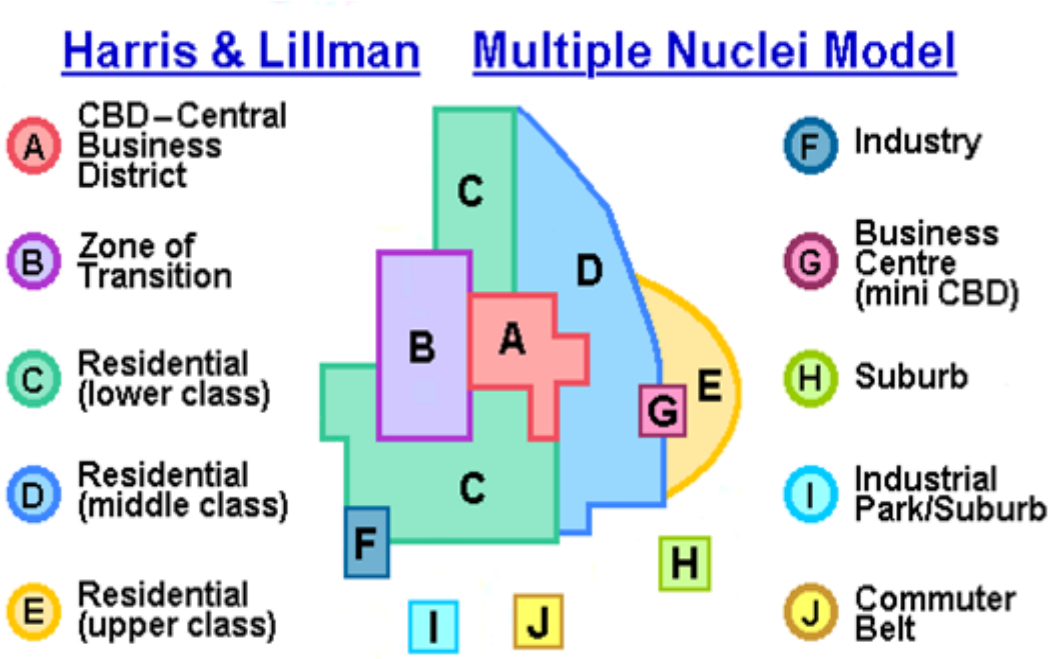

Figure 2.4 Multiple Nuclei Model or Harris & Ullman Model

(Source: Settlement Geography, 2016)

Osei and Gbadmosi (2011) described poverty as a desperate situation in Africa as 38 out of the 54 countries in the continent are classified poor. The rate of urban poverty in African can be directed associated with the development pattern of the cities. The development pattern displaces core grassroots activities and craftmanship that is also a characteristic of the identity of the indigenes. Ideally, there ought to be a structured development pattern, as villages, towns and cities all have vital functionalities in the hierarchy of their formation as illustrated in Figure 2.5. In contrast, poverty in Africa is more to do with the lack of openness to the world, than the lack of investment on infrastructure, and the unprecedented growth in population (World Bank Report, 2017).

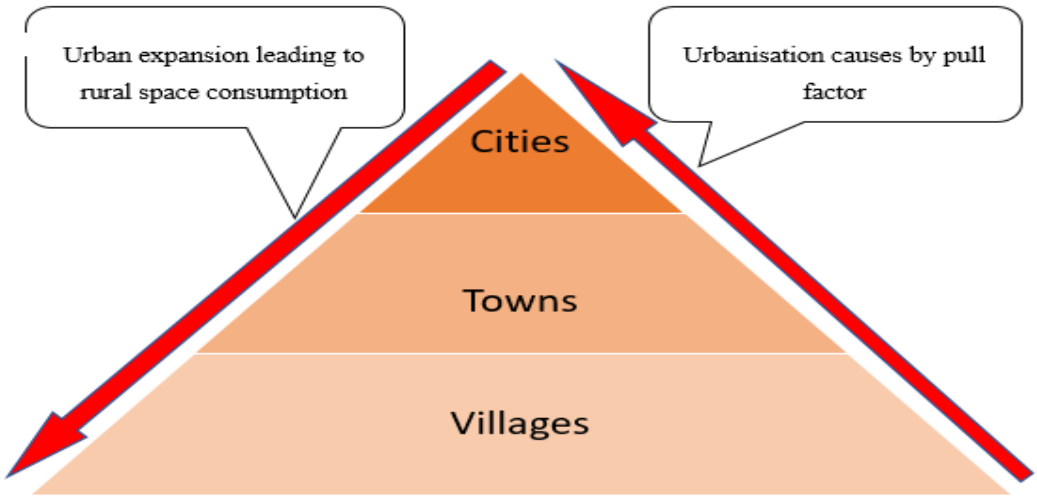

Figure 2.5 Urban Hierarchy in Africa

(Source; Author)

The British colonist developed Port Harcourt city in a nucleated settlement pattern which seemed to reflect Burgess's Model. However, the rural areas had the advantage of their land spaces in a dispersed pattern. Urbanisation has significantly disrupted the settlement pattern of the rural areas, which have had an enormous impact on the economic capability of most rural areas in Nigeria. Several challenges emanate from rural urbanisation, which is typically like the issues with the Greater Port Harcourt City Development projects.

According to Wang (1999), rural urbanisation is a process of transforming rural areas into urban areas. The issue with such transformation is that rural areas lose their cultural values and the quality of life they enjoy in their local communities. The migration of urban dwellers towns and villages are the main impetus responsible for unrecognised and unregulated urban expansion, as illustrated in Figure 2.5. According to Shang et al. (2011), urbanising rural areas is a strategy used to consume agricultural lands. Wang (1999) pointed out that the motive is to diffuse the population in the city and restraint rural dwellers from being attracted by the pull factors of urbanisation, which he terms as 'bottom-top development' and the 'top-bottom development'.

2.3.1 Functionalities of urban areas

There is a dichotomy between the features of urban and rural areas, and so are their functionalities. Some of the critical functionalities of urban regions are; central place, transport towns, industrial towns, junction towns, gateway towns and specialised towns. Settlements that conform with urbanisation processes from infancy to maturity tend to do so in a gradual process; it follows the trend on the hierarchy: villages emerge into towns, and towns become cities till it becomes a megacity. An interesting aspect of such an approach of urban development is that population increase is the only constant factor, though, the city is smaller than the urban peripheries that have a higher population growth than regions with more space. Arguably, the size and the function of the urban area have a significant impact on how they develop. For instance, a commercial town with tend to attract more people than a specialist town, it all depends on the rate and level of urbanisation. The functionalities of an urban area determine urban growth.

This section has reviewed the classical approaches to urban development and the standard models of urban renewal. However, these models are focussed urban areas in developed nations and have not considered sustainability perspectives as an aspect of urban renewal. Therefore, the next section will review the concepts within sustainable development initiatives and its potential application for sustainable urban renewal. It is crucial to have a clearer understanding of the sustainable development characteristics that are most relevant for use in sustainable project management in the African context.

2.4. Sustainable Development

Sustainable development drivers are categorised under the three main aspects of sustainability (social, environmental and economic) and their intersecting sub-aspects. The social aspect will look at strategies for sustainable housing, sustainable transport; the ecological issue will consider plans for sustainable land and water use, sustainable energy, sustainable waste management, sustainable natural resource management. From an economic point of view, the range of topics considered will include sustainable business management, sustainable supply chain and corporate social responsibility.

All these strategies advocate sustainability in terms of improving the quality of life for the current generation and protect the ecosystem for future generations. If that be the case, then it is essential to focus on human-centric development by considering developing their immediate environment. According to Strzelecka (2008), the current urban development approaches have failed to address pressing sustainability-related issues, while Ford (2015) posits that if those traditional methods of developing urban areas have been unable, then we should turn to sustainable urban development. Sustainable urban development is a growing area of academic studies, advocating for policy intervention in strategic areas of infrastructural development like transport, energy, and housing.

Sustainability as a concept considers the world as a holistic system that reveals threats and opportunities for projects (Hitchcock & Willard, 2009). Therefore, sustainability defines a way of life when applied to our daily activities as it spells out good and bad practices (Peterson, 2009). In agreement with Mezher et al. (2011), the most significant challenge of this century is how to set a balance between economic growth, physical development and sustainable development. The entire phenomenon sounds elusive, and seemingly unattainable, while in reality, it is just about adhering to best practices (Greiman and Warburton, 2009). Therefore, there is a need to take adopt a forward-looking approach to develop African urban areas by incorporating futuristics principles that are embedded in the conservation of natural resources.

According to Song (2011), sustainable urban development adopts a measure that will develop and implement policies to aid the development of cities to avoid negative impacts from destructive human activities that brought about climate change. The primary goal is to design, plan and develop an urban area that takes the three dimensions of sustainability (social, economic, and environment) into consideration. According to Shang et al. (2011), urban areas are designed to integrate communities within their natural habitat through social inclusion. The focus is to develop an urban area that will create and provide opportunities for its residents by being self-sufficient economically; an urban area that will protect and conserve the planet by adopting a measure that will enable a zero-carbon footprint city. It is no secret that a holistic approach to urban development will profoundly increase economic growth through a boom in international investment and can potentially encourage Public-Private Investments (PPI).

Over the past decades, several approaches have been adopted to achieve sustainable development. However, these approaches have been centric on the top-down process of technological diffusion, which has failed in several ways. There has not been a precise definition of the sustainable urban area, as it used interchangeably with several other frontiers like sustainable transport, housing, business. According to Li and Qin (2014), describes sustainable urban development as a strategy that used towards achieving sustainable development in decaying urban areas. He further pointed out that since slums are rapidly building up in major cities in an emerging economy, the strategy can be used to gradually reduce the impact of unsustainable practices in such urban areas.

Historically, as cities grow in population, the infrastructures are to be developed to serve the expanding demand. Nevertheless, In African cities, there is no corresponding infrastructure growth; typically, that is not the sort of approach sustainable urban development will deploy. According to Song (2011), induced demand is a smart way to control urban traffic issues; as a result, strategies are deployed to combat infrastructural need across the different facet of the urban area. Thus, Oanta (2014) defines sustainable development as the sort of development that kicks against destructive human and industrial activities; they propose that any development that potentially put the planet at risk should be avoided. Harmful social activities that can cause climate change; air/water/ noise/ light pollution; ozone depletion, rise ocean level; wildlife; land/water use; waste management and radioactivity.

According to Instances (2006), climate change and environmental degradation have stirred a global concern, thus sustainable development. According to a Stern Review (2006), climate change is one of the most significant market failures the world has experienced. Simonis (2011) claims that economic growth has blanketed the reality of the impact of the most important greenhouse gas, which is carbon dioxide (CO2). As emphasised by Simonis (2011), destructive human activities from the consumption of fossil fuel and change in land use have immensely increased atmospheric concentration. Also, technology advancement has created an avenue for the excessive extraction of natural resources, and the consumption level is growing by the day. Agenda 21 of the Millennium development goal reinforced the concept of sustainable development as it tailored it towards combating human-made threats and natural hazards.

Globally, several countries, especially developing countries, are faced with massive resource depletion, environmental degradation and economic stagnancy (Nguyen et al., 2005). Thus, sustainable development has become a global strategy (Ratiu and Anderson, 2015), for creating awareness of economic, social and environmental concerns. Sustainable development as a concept gained its prominent recognition from the Brundtland report *Our Common Future* (WCED, 1987). The report emerged after the deliberation on environmental concerns like degradation, deforestation and resource depletion. The conference made sustainability known common issue, thus defining it as "development that uses the natural and human capital to meets the needs of the present generation without compromising the ability of the future generation to meet their own needs" (WCED, 1987). Oanta (2014) sustainable development is a global concern. Thus, it is crucial to identified and address the different facets such as social inequity and uneven distribution of economic growth (Mckenzie, 2004).

An awareness flag was raised on how human capitals are being deprived within the loop of a growing economy. Often, the unbalanced scale in recent economic development processes is a threat to sustainable development (De Francesco and Levy, 2008). The concept created three fundamental aspects to consider in addressing sustainability-related issues; the three dimensions of sustainability "economic, social and the environment" or the "triple bottom line": plant, people and profit". These three dimensions create a significant balance between human beings, their immediate environment and the economy at large. It defines the perception of a person. Socialist will tilt their views towards the social dimension, an economist will view things from an economic standpoint, and an environmentalist will naturally, see the world through an environmental lens. Regardless of the philosophical stance, it is crucial to understand what the concept is all about and what it is holistically aimed at achieving.

The concept of sustainability is based on simple principles that pinpoint the necessary conditions that must be met to enable humans and nature coexist in their natural environment in productive harmony (Kesavan and Swaminathan, 2006). The underlying principles of sustainability can be used or tailored to develop a framework of practices to establish how sustainable developments are to be achieved by merely meeting the prerequisite of the intersecting domains (Hitchcock and Willard, 2009). Despite, the different balance of the

three dimensions of sustainability, it still dramatically demonstrates the conscience behind its ideology; it portrays an all balanced coexistence of all three domains which is practically unrealistic in certain aspects. The philosophy promotes natural efficacy in a collaborative harmony with humans regarding respect, maintenance, sustenance, protection, and preserving the natural environment to create a conducive ecosystem for future generation (Tian and Wu, 2014).

Brundtland Commission in Our Common Future (1987) also establishes that sustainability is "the ability to sustain" and "the capacity to endure". The definition put the onus on human beings to sustain the enduring earth, in a way that our finite natural resources can meet our immediate social, economic and environmental needs, and that of the future generation (Gessner et al., 2016). Conversely, sustainability encouraging an all-rounded balance in all aspects of the "triple bottom line" (People, Planet, and Profit), creating a balance between social-economic; environmental-economic; and social-environmental dimensions. According to Al-Aomar (2019), sustainability is not a straightforward concept of integrating and consultation of social, economic and environmental issues. It is a complex and dynamic concept that varies regarding how it is adopted and implemented in different disciplines/ situations.

Todd et al. (2017) suggest that sustainable development learning should be interdisciplinary. The concept is focused on maintaining and sustaining the earth and its inhabitants as emphasised in the Brundtland definition of sustainability. The idea also advocates the maintenance of human, social, economic and environmental values and beliefs (Cavaleri and Reed, 2008). One of the principles advocates against the consumption of capital. In this vein, it is crucial to understand what mainly the focus is, before developing a framework or putting forward a generic implementation plan, as it this might be catastrophic thus, resulting in the development of a mal-functional framework. In the context of urban development projects, sustainability tends to simultaneously harmonise all three dimensions of sustainability in the development process. The aim of integrating sustainability initiatives is to develop an urban area that will benefit humans in terms of their societal values (Wu and Zhi, 2016), and progress, economic potentials and, a safe environment as illustrated in Figure 2.6 below:

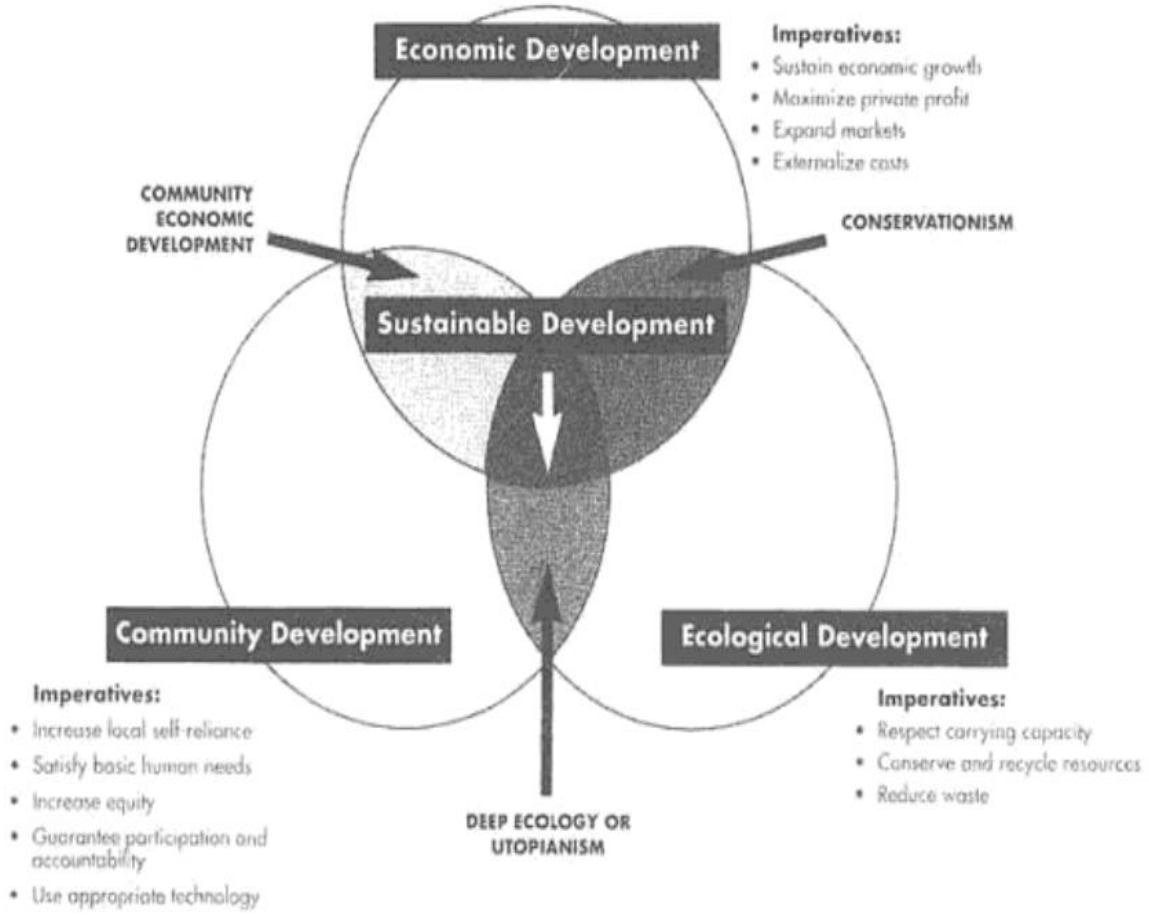

Figure 2.6 - 3 Overlapping Circle Model of Sustainability

(Source: Adopted from Newman and Kenworthy, 1999)

The overlapping circle model is a conceptual model that is generally accepted; it clearly defines what each sphere and their intersecting domains stand to achieve on the scale of balance. According to Todorov and Marinova (2009), the overlapping circles model is not applicable in all contexts, as one sphere may be more advantageous than the others especially in developing countries (Mahgoub, 2015). It is crucial to note that several factors can potentially influence the workability of the model, dominating factors like population growth, stagnant economic growth, culture, mindset and knowledge can make the model dysfunctional. In principle, the overlapping circles model defines the integral nature of the three spheres of sustainability. At the same time, in practice, they are used as tools to implement strategies in different sectors to achieve sustainable development goals. The

social and economic sphere intersects at an “equitable” region; the social and environment intersect with a “bearable” region; the environment and economically intersects at a “viable” region, are fundamental in attaining a “sustainable” region in the coexistence of the spheres all three spheres most intersects at this region which is a focal region.

The model, however, tends to be unrealistic within an African context as it is challenging to establish what factors are to be categorised into each of the entities. Categorically, the overlapping model of sustainability is not an appropriate model to be adopted in an emerging economy as the model cannot be implemented within the African context. African cities are dynamic, and there is a lot of diversity; culture, religion, languages, traditional beliefs and the mindset of the people is a significant determinant of how they perceive and accept things. It is almost impossible to have equality in all aspects, especially in a complex system like Africa, India and China; where most of the variable are intertwined either by the social system, religion, or ethnicity.

Critically, examining the attribute of each sphere is quite an arduous process. First, is to ascertain what goes in as the social, economic and environmental elements of the entire system and subsystems. It is a crystallised fact, sustainable development cannot be achieved with the overlapping model in an emerging economy, and hence, it is necessary to adopt a tailored approach that will factor in the different influential elements of African society. African urban areas are dynamic in several ways, African housing forms are various, road network and transport connectivity fall under separate entities that are peculiarly different in different countries, health services in Africa urban areas are different because they believe in orthodox medicines (herbal) and the educational systems are different.

2.4.1. Environmental sustainability

Environmentalists opine that the environment comprises of air, water, soil, rock, mineral, metals, fossil fuel and other living organisms like animals and plant that co-exist within the biosphere (Tobin, 1999). Environment sustainability is a way of life rather than an act, and it seeks to protect, preserve, conserve the finite natural resources/capital, and prevent any potential harm to the environment and its inhabitants (Yu and Zhang, 2009). There is a need to protect and conserve all species of aquatic life, wildlife, natural minerals, and other natural capital to have a balance. Environmental sustainability deals with the entire ecosystem and

how they inter-depend on each other within the existing loop. On the other hand, environmental sustainability also addressed issues of the value chain, especially in times like this that industrial activities are increasing. Modernisation and rapid urbanisation have created a substantial disruption in environmental balance.

McKenzie (2004) suggested that environmental sustainability reflects the social and economic stability of cities, stating that a better quality of life in a stable society can promote environmental awareness. In recent years, the increasing concern on the effect of climate change has significantly improved how humans consume natural resources (Creanga and Duda, 2012), and the trend has evolved from reckless use to a more considerate use of land, water, mineral and energy resources. Hitchcock and Willard (2009) pointed out that an environmentally sustainable city is one that accounts for zero pollution and waste, emits zero carbon, and conserves its natural habitats. Environmentalists opine that environmental sustainability should be policy drive, such that humans are held responsible for their reckless acts of damaging the natural environment. Sustainable urban development advocates shorter intra-urban distance and creates urban-rural linkages and depend less on fossil fuel (UKEssays, 2018).

2.4.2. Economic sustainability

Economic sustainability is simply the maintenance of economic capital. It measures economic efficacy through the nations' economic activities (per capita income and GDP). Realistically, economic sustainability is concerned with economic growths which are associated with good jobs, fair wages, wealth security, infrastructure, fair trade and investment in research and development. Economists have in the past claimed that environmental sources are sink are unlimited; hence they do not need to be accounted for as part of the scare's resources, painfully that is no longer the case. Over-dependence on the natural source by humans have depleted resource source and have today thrown us into natural wealth deficit (Yu and Zhang, 2009). Economist believes that a stable economy fosters growth.

2.4.3. Social sustainability

Social sustainability is a new ideology adopted to complement the fight against environmental degradation (McKenzie, 2004). Chan and Siu (2015) the concept is emerged to guide policymakers to solve social problems. As emphasised by Gelrud and Loginovskiy (2016), social support has a profound influence in breaking social norms amongst stakeholders, and it encourages social cohesion. From a social scientist point of view, social sustainability is a system that provides a quality life for humans, its functionality is centric on meeting social needs, and it is measured on the extent to which social capitals are maintained (Yu and Zhang, 2009). He further pointed out that social sustainability is concerned with the maintenance of human and social capital, which are associated with an individual, societal and economic achievements.

According to Doloi (2012), social sustainability is termed as the mutual relationship between nature and human society. It is focused on achieving the benefits of a project. In terms of urban development, social sustainability is concerned about the benefits derived from the development. The individual, social and economic achievements are based on education, health, wealth, skills, knowledge, leadership, community living, cultural inheritance, individual integrity and realisation, law, compassion, patience and sense of belonging which is significantly dependent on access to essential amenities that directly reflects the growth and progress of civil society (Sirayi, 2008).

According to McKenzie (2004), social sustainability is concerned with human subjects within the ecological process. Hence, it can be argued that its entirety foster development that meets human needs and wants. As human beings strive for a better life within society, they also make a conscious effort to develop their immediate environment. Nevertheless, Todorov and Marinova (2009) are of the view that sustainable development agenda are deceptive. He further argued that the stakeholder/government preach sustainability when they are the perpetrators of unsustainability, especially in areas of poverty. Although most urban areas have traditional or pre-colonial designs, this old plan set the scene for further development through policies that promote sustainable use of natural resources like land, water, and energy. Socialist would have a different perceptive of what social sustainability and how they are impacted in social projects (Dempsey *et al*., 2011).

The phenomenon is that the society is socially constructed; hence, the society is influenced by various variables like age, gender, location, language, behaviour, attitude, culture, royalty, ethnicity, family setting, lifestyle and social class. In the quest for sustaining an already attained height of sustainability, most European countries now focus on social sustainability as a strategy to accomplish their target of being more sustainable. There has been an upsurge in the governmental and non-governmental organisation to implement policies on social cooperate responsibilities, with the consideration that social inclusivity is a holistic approach toward achieving sustainability; meaning the society is not a standalone pillar, as such providing a quality life for the populace will create an enabling environment for the other two dimensions of sustainability. The following sections explain the main aspects of the model in greater detail.

2.4.4. Equitable region

The economic and social spheres are dynamic and very controversial domains. They are both different spheres with entangling elements; the social and economic component cannot wholly standalone (for instance, one cannot talk about having an enabling work environment without talking about a substantial social class). Again, the issue of sustainable housing, transport cannot be tackled without addressing the economic capabilities of the urban area and its inhabitants. Directly and indirectly, they are intertwined in a way that none can be solely independent; therefore, the equitable region tends to address what proportion of each element will set a balance.

There are key requirements to achieve and ascertain when considering socio-economic sustainability in urban development. Sustainable urban development is unlikely to succeed if determinants like employment, decent housing, health and education are not incorporated into the developmental plan. Although we can argue that transportation is a key determinant of economic sustainability, the fact remains that as long as the transport sector depends on fossil fuels, sustainability is unattainable. Again, the equitable region is potentially a threat to the bearable region in several dimensions, and the atmospheric conditions are changing due to destructive human activities that are associated with how we consume natural resources.

2.4.5. Bearable region

The intersection of the social and environmental sphere being bearable, poses a strong augment, however, Sirayi (2008) argues that an increase in social capital will create awareness and reduce social concerns about environmental issues, and this will agreeably enhance the quality of life and consequently increase life's expectancy. There are notable arguments that issues associated with social deprivation will be addressed in this sphere.

2.4.6. Viable region

In the context of sustainable development, viability means the ability to survive under certain conditions. Therefore, the ability for humans to survive in the ecosystem depends on the variability for all three domains to co-exist on the earth, which logically set a balance between ecological processes and life support systems (McKenzie, 2004). The general definition of sustainable development is vague as it failed to address the unpredictable balance between what humans want from the economic and ecological system. It has been a profound argument that sustainable development is not sustainable; instead, it is a way of underrating the poverty level in developing countries (Todorov and Marinova, 2009).

2.4.7. Sustainable region

Sustainability is a growing concern that triggered the need for an international organisation to impose the attainment of sustainable development in both developed and developing countries. Sustainable development enables the present generation to fulfil their obligations without jeopardising the ability of the future generation to meet their own needs (Brundtland Commission, 1987). The concept of sustainability emerged to combat environmental deterioration and degradation that resulted from destructive human activities and heavy dependence on natural resources caused by industrialisation. Given this, the concept has gained recognition in literally all disciplines, especially in business management, supply chain management, built environment and project management. Sustainability is now incorporated into organisational propositions to change the way they operate, and the entire civil society is changing rapidly in the way we produce, consume and measure value progress (Sirayi, 2008).

2.5. Disaggregated Model

Haven looked at the conceptual model of sustainability, which is the overlapping framework; it is imperative to disintegrate it to understand what fits into the different sphere in the context of the case location. A critical review of the model established that the overlapping circle model of sustainable is not considered to be a benchmark model within the African context. In the light of this, it was necessary to modify the model to incorporate a more realistic approach to what is applicable in developing countries because convincingly, the model does not reflect the situation in African cities. Therefore, the most appropriate thing to do is disaggregate the model and try to construct feasible elements that are adaptable within the African context. In disaggregating the circles, it is important to determine what makes up each sphere of the model. Secondly, decide which element fits into each of the spheres. Thirdly, decide which element intersect to attain 'viable region', 'bearable region', 'equitable region' and 'sustainable region', then re-integrate the circles to understand what is considered to be a sustainable urban area within the African context.

By disaggregating, the model, the author ensured vital aspects of urban development had been taken into consideration, including the barriers that shape stakeholders behaviours, attitudes, belief, culture and location. This study will establish a knowledge base of what factors makes up those barriers of controls and how sustainable urban development can be achieved through effective and inclusive stakeholders' management as it is popularly said, 'awareness is the key to achieving sustainability'.

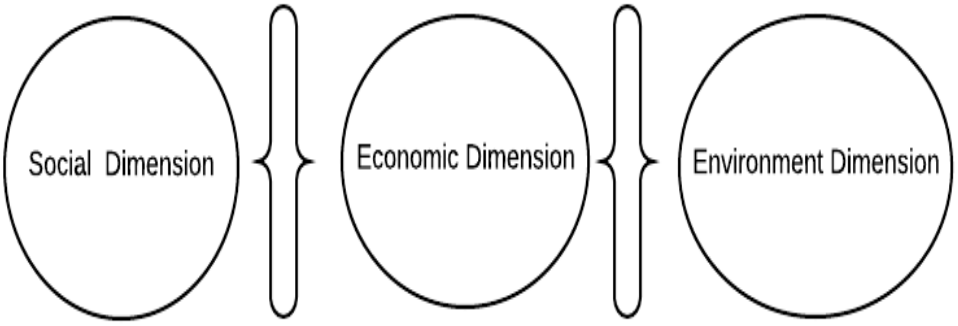

Figure 2.7 Disaggregated Model

(Source: Author)

Having disaggregated model indicates that sustainability as a concept in urban development is closely knitted with several social and cultural values, it also takes into consideration the demographics of the urban area and how it is influenced by several formal and informal constraints. Formal constraints are recognised as legislation, land law and regulations, while informal constraints are factors like belief, culture and other social elements. The traditional model is an integral part of institutional developments that are policy-driven, which are mostly adopted by western countries. In contrast, African countries do not have a similarly enabling institutional strength to adopt such models that are governed by regulated institutions.

Sustainability models in the West are an essential framework that integrates social, economic and environmental values of projects (Dempsey *et al*., 2012). It is also considered to be a tool used in a holistic system that reveals threats and opportunities for projects (Hitchcock and Willard, 2009). Sustainability is a way of life when, applied to our daily activities as it spells out good and bad practices (Peterson, 2009). Although the concept of sustainability is widely used, it is not well represented in urban renewal development in an emerging economy, especially in areas with serious environmental, economic and social concerns. Sustainability ought to reflect economic and social stability in metropolitan regions (Chan and Siu, 2015). According to Gladwin et al. (1995), any development that promotes imprudence, social exclusion and inequity is not sustainable development. It is also important to set standards, key performance indicators, and social indicators to establish the benchmark of success in urban development.

The American Society of Landscape Architects posits that sustainable urban development should be guided by sustainable planning and management visions, which is geared toward having a holistic planning and management process. It is important to understand the factors that make urban areas decay and why they fail to meet the criteria for sustainable development. Ibrahim et al. (2015) posit that climate change will adversely impact on Nigeria, and it will affect both urban and rural areas if considerable measures are not taken to address the issue of urban infrastructure decay. Urban areas are deteriorating rapidly due to climate change, weak institutional structure, unfriendly ecological activities such as deforestation, sand filling, bush burning overfishing, over-farming, uncontrollable waste management, inadequate transport and road network, unplanned urbanism that leads to

disorders, insecurity in the society, variation in land/water use, topography, the consumption level of human and natural capital, independent social policies, poor maintenance culture.

Well-meaning urban development should substantially benefit the people both on a short-term and long-term basis. Urban development is a crucial issue when it comes to developing an inclusive society, improving the quality and standard of living. As emphasised by the United Nations, it is essential to create an inclusive society; hence stakeholders' cooperation cannot be ignored. In recent years the Transit-Oriented Development (TOD) has extended their developmental plan to African cities like Addis Ababa in Ethiopia, which to some extent indicates that the dysfunctionality of traditional model of urban development and sustainability are becoming clear. Therefore, the consideration to look towards other measures that can provide an adaptable framework that incorporates not only the sustainability principle but sustainable project management approaches.

2.6. Sustainable Project Management

The definitions of projects and project management are unending; it has been defined by several people in several contexts. Project Management Book of Knowledge (Project Management Institute, 2004) describes a project as a temporary endeavour, undertaken to create a unique product and service for the common good of its end users. In another definition, it is the application of knowledge, skills, tools and techniques to project activities to meet project requirements" (Project Management Institute, 2004). Fleming and Koppelmen (2005) opine that a project is a one-time-only endeavour, focused on accomplishing a set of goals within a designated time, cost and quality.

These definitions echo the main characteristics of a project, for example, its temporary nature, which has a definite start and finishes (Vidal et al., 2007). Vidal and Marle (2008) however, argues that a project can only be justified when its life cycle spans through a viable business case that fulfils the stakeholders' expectation and it is accomplished within the speculated time, quality and within budget. Going by Kuruoglu and Ergen (2000)'s argument, if a project fails to deliver on any of its key attributes like time, cost and quality, then, it can be said that the project is not successful. Urban development projects are characterised as complex projects that require substantial planning and implementation

(Greiman and Warburton, 2009). Urban development projects include roads, houses, schools, hospitals, water and energy; they are complex projects that cannot be rushed.

On the other hand, project management is dynamic (Project Management Institute, 2004), and changes are implemented through powerful tools and technique (Meredith and Mantel, 2010). According to Millhiser and Solow (2007), project management has unique tools and methods that are very important in any project environment regardless of the size and nature of the project, as it is the determining factor of success. Project management requires a set ethical code and a high degree of professionalism, which includes incremental approaches and mutual coordination of stakeholders (Genus, 1997).

Barnes (2012) defines project management as the organisation and coordination of available resources which could be human, material, time and finance to accomplish a task within a specified time, quality and cost. Generally, projects and project management definitions pay attention to the economic benefits of projects (Vidal and Marle, 2008). As emphasised by Brink (2017), projects are stressed due to the traditional management approaches. He further emphasised that sustainability is an important antecedent of any project. Therefore, it is essential to point out that sustainability in project management is an integral part of sustainable development (Agyekum-Mensah et al., 2012).

The literature emphasises that different project management approaches can be used as a tool to achieve sustainability, approaches such as the Traditional Project Management (TPM), Project in Controlled Environment (PRINCE2), Project Management Book of Knowledge (PMBOK) and Projects Integrating Sustainable Methods (Prism). These approaches are unique in different project management environments, and they focused on objectives that embrace sustainability. However, they have their unique strengths and drawbacks that promote or undermine sustainability considerations depending on how their principles are implemented across the different phases of the project.

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to meet project requirements" (Project Management Institute, 2004). Conversely, Fleming and Koppelmen (2005) opine that a project is a one-time-only endeavour, focused on accomplishing a set of goals within a designated time, cost and quality.

These definitions echo the main characteristics of a project, for example, its temporary nature, which has a definite start and finishes (Vidal et al., 2007). However, they argued that a project could only be justified when its life cycle spans through a viable business case that fulfils the stakeholders' expectation and it is accomplished within the speculated time, quality and within budget. Going by Kuruoglu and Ergen (2000) argument, if a project fails to deliver on any of its key attributes, then, it can be said that the project is not successful.

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some ways; however, they have their unique strengths and drawbacks that promote or undermine sustainability considerations.

Nevertheless, to attain sustainability in project management, there is a need to adopt sustainable project management approaches that are focused on managing and delivering projects in lines with sustainability principles (Gareis et al., 2009). Sustainable project management has emerged as a concept to tackle the challenges of environmental concerns within a project environment. However, PMP-(PMBOK) framework, PRINCE2 and Prism are tailored to ensure project success regardless of the project management approach employed, if its compliances with ISO standards on Environment sustainability is considered to be incorporated. However, sustainable development project must comply with the International Organisation for Standards (ISO) on Environment -14000/14001, Quality-9000, Social responsibility-26000, Energy-50001, and Risk management-31000. Ethical responsibility and professionalism must be enforced to reduce the impact rates of a project to the barest minimum (Silvius et al., 2012; Roberts and Robinson, 1998).

There are different approaches to project management; the traditional method of project management is synonymous with setting its success criteria on quality, cost and time (Kuruoglu and Ergen, 2000). The traditional project management approach is well orchestrated, and change is problematic; thus, it is a necessity to set clear boundaries. Predominately, the approach reflects the concept of sustainability regarding its economic benefits, but it does not consider the environment or the social aspects of sustainability. Hence, it does not fulfil sustainability considerations. PRINCE2 is a widely used project management methodology in the United Kingdom and internationally.

The PRINCE2 methodology adopts a process-driven approach in a controlled environment that manages project processes sequentially, it divides and monitors project in stages to ensure that projects are completed on time, within speculated quality, and on a budget. The prince2 methodology is another approach that emphasis on economic values of projects, which does not fulfil sustainability considerations. Project integrating sustainable methods is the most recent project management approach based on the ISO standards that revolve around environmental management systems. The plan and processes are structured in a way that teaches sustainability considerations across the board. The strategy is aimed at

maximizing the opportunity of attaining and improving sustainability by focusing on the immediate and future improvement of projects that goes beyond the stipulated timeframe of the project. All three aspects of sustainability must be considered through the life cycle of the project.

According to Cavaleri and Reed (2008), the conventional project management approaches of the systems theorist are outdated as they are focused on the economic benefits of projects, which contradicts the ethical responsibilities for sustainable projects. Project management has gone beyond the traditional time, cost and quality management. According to Carter (1986), project management has become a collective effort that requires a broader team of professionals. Sustainable project management approaches are focused on maintaining a balance between the social, economic and environmental needs of stakeholders. The conventional project management approaches emphasise on the short timeframe of a project life cycle. Still, sustainable project management approaches do not only consider the immediate benefit, but it considers the nature of the project either by size or complexity and the short-term/future impacts.

Sustainability is the proposed future of project management (McKinlay, 2008). Also, Gloet (2006) is also of the opinion that sustainability in project management is another way to gain a competitive advantage, as the principles are geared harmonisation the triple-bottom-line, transparency and ethical efficacy (Silvius et al., 2012). Conversely, Palmers et al. (1995) argue that nothing is sustainable, they pointed out that including sustainability can be a mere hype to comply with environmental regulations and conform to the trend of being sustainable. It is also argued that the project management maturity model can change from being reactive to proactive if sustainability principles are integrated into project management processes (Silvius et al., 2012). Nevertheless, Fellows and Liu (2008) opine that current project management principles and maturity models have adverse effects on the triple bottom line of sustainability, as they are profit-oriented. Hence, it changes unsustainable industrial practice by complying with ISO standards on the environment, to change the way projects are managed and delivered sustainably.

Keeble at al. (2003) and Labuschagne and Brent (2006) emphasises that sustainability should be integrated through the lifecycle of the project; initiation, planning, execution, closure and

in the form of project support. They further posed an argument that sustainability in project management is concerned both short and long-term benefits; hence the project should be managed with consideration of the future in mind. In Africa, corruption is a predominate challenge, nepotism in awarding contracts that lead to carelessness during the project execution. Another major problem is the procurement of project resources because best practices are ignored, and there are no specific procedures to select appropriate suppliers, and this often contributes to substandard quality of materials and eventually results in project failures.

It is argued that it is in those phases that sustainability considerations on green design and sustainable resources (human, material, time and finance) are decided (Hitchcock and Willard, 2009). Holland et al. (2011) opine that sustainability principles should be integrated into project management processes using a holistic linear approach starting from the project investigation stages, selection, design, construction, operation and maintenance, to the project closure. They further pointed out that this approach will allow flexibility in the project management process as each phase will be managed independently. Similarly, Labuschagne and Brent (2006) suggest that sustainability should be integrated from the conception stage to the final disposal until the project is no longer in existence. Furthermore, integrating sustainability principles into the life cycle of the project will guarantee the sustainability of the project economically, socially and economically

2.7. Stakeholders Management

According to Bourne and Walker (2008), stakeholders are people who have power, influence and interest in projects. Similarly, Sirsly (2015) defines stakeholders are those that are directly or indirectly affected by the input or outcome of work. The definition echoes a wide range of people who have an interest to protect, the power to halt, and influence to put pressure on project delivery. Stakeholders can be classified as a group of individuals, government, NGOs, community. Todd et al. (2017) posit that it is vital to recognise the importance of the different type of stakeholders, and they must be consulted, communicated with, and kept informed at every stage of the project. Most times, all they require is to be recognised, be aware of things going on, and be assured that everything is fine.

Drawing inferences from other social science studies, stakeholders are likely to conform to ideas that are explicit to them. For instance, making people know the consequences of consuming natural capital through informative programmes can change the way they perceive the issue at hand. Generally, stakeholders always want to know the impact of an issue; they want to know how it can damage the environment; they want to know the impact on their finances and further health damage. Education and information sharing is an important tool in achieving sustainable development. Creating awareness about different initiatives that can be used by developing countries to muddle through unsustainable practices is an effective way to combat climate change and environmental degradation (Tabane et al., 2016).

Kloppenborg et al., (2011) postulate that the interests of these individuals or group of people must be respected, protected, and goal-oriented. As projects and business experience high resistance for different stakeholders', 'stakeholder management' has gained heightened interest across different industrial sectors and became a growing topic in academic papers. It is speculated that stakeholders determine the success or failure of any project. According to Sirsly (2015), for any project to attain its set goals, the stakeholders should be appropriately integrated into the project. She further emphasised that as social values evolve, so do their expectations. Across academic studies, different authors have identified several attributes of stakeholder's legitimacy, power, interest, urgency. Genus (1997) also highlighted the effect of excluding legitimate stakeholders in complex projects. Joseph (2008) stakeholder operates based on 'self-interest'; hence, it is essential to manage stakeholders appropriately. He further pointed out that while it is essential to control their self-interest, is paramount to understand their behaviour and align it effectively so they can gain self-fulfilment. Again, Joseph (2008) postulates that an effective approach to managing stakeholders is to incorporate them into the developmental strategy.

There have been several records of the failed project as a result of stakeholders' disruption. They are powerful, and they recognise their strength and the effect of their disapproval in the life cycle of a project. Thus, several literature emphases on stakeholders' management approach that are workable and adaptable in managing complex projects like urban development. The importance of stakeholders' management in an urban development project cannot be overlooked because they define the value proposition of the project. Such that if

their benefits are not recognised, they can pose as threats through the life of that developmental plan (Doloi, 2012).

2.8. Implementing Sustainability Principles in Project Management Phases

Agyekum-Mensah et al. (2012) emphasise that sustainable project management processes are a means of achieving efficiency and effectiveness. Hence, sustainability should be integrated into the four phases (design, construction, operations and decommissioning) of urban development the projects. However, Macke et al. (2019) suggest that sustainability should be incorporated into the design and planning phase of a project, emphasising that the design and planning phases are the most crucial phases of a project as they determine the success or failure of that project. This type of integration will be facilitated with the support of project stakeholders, whose role is discussed in the next section.

It is widely argued that it is in design and planning phases that sustainability considerations are made on green design, and sustainable resources such as human, material, time and finance (Hitchcock and Willard, 2009). Holland et al. (2011) opine that sustainability principles should be integrated into project management processes using a holistic linear approach starting from the project investigation stages, selection, design, construction, operation and maintenance, to the project closure. They further pointed out that this approach will allow flexibility in the project management process as each phase will be managed independently.

Labuschagne and Brent (2006) suggest that sustainability should be integrated from the conception stage to the final disposal until the project is no longer in existence. Furthermore, integrating sustainability principles into the life cycle of the project will guarantee the sustainability of the project economically, socially and economically (Agyekum-Mensah et al., 2012). Cagatay and Mihci (2006) support Palmers et al.'s argument that sustainability is another vague concept that has increased operating cost and time. Silvius et al. (2012) however, argues that sustainability principles are rewarding if integrated at the project level (project management processes); at the project managers' level (competence); and at the organisational level (project governance). Haven said that sustainability principles have strategic areas of impact, which can likely affect the way projects are performed, managed

and delivered (Silvius et al., 2012; Gareis et al., 2009). For the Greater Port Harcourt City Development project, sustainability principles should be integrated into the project management processes as illustrated below:

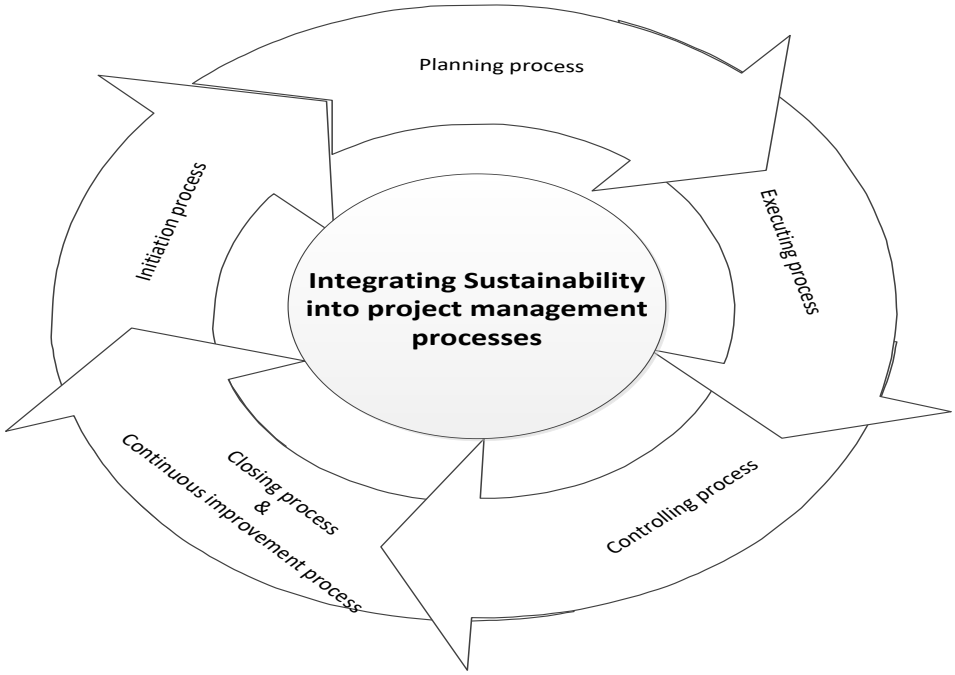

Figure 2: Integrated Sustainable Project Management Model

(Source: Author)

2.8.1.1. Initiation Phase:

Sustainability principles can be integrated into the initiation phase of the project by conducting stakeholders' requirement analysis to determine stakeholders' needs; risk analysis to ascertain the impact level of the project and life cycle to determine the viability of the project through its lifespan. According to Dalgliesh et al. (1997), conducting such assessment can ascertain the impact of the project on the triple bottom line of sustainability, which can also identify the expected benefits of the project, possible use of alternative materials and can be used to determine the scope and objective of the project both in the short-term and long-term. Integrating sustainability at this phase also involves forming a

competent project team to manage the project sustainably. For the Great Port Harcourt City Development project, it is paramount that stakeholders are involved at this stage of the project because they are the end-user of the facilities. The indigenous people of the community should have a clearer understanding of the challenges they face, and they can communicate that information to the urban development planning team, which can be incorporated into the design and concept development phase.

2.8.1.2. Planning Phase:

The planning phase of any project is crucial to the success; predominantly, quality planning yields successful project delivery (Zwikael and Globerson, 2006). Planning involves a series of brainstorming, data collection and risk analysis, and estimation of time and cost. According to Zwikael (2009), planning is of utmost importance in the life of any project because it is done without any prior knowledge. Sustainability principles can be integrated into the planning phase of the project by employing sustainable human and material resource; to cover for areas such as costing, scheduling, communicating and reporting project progress based on sustainability considerations. The sustainability principles can also be included in the strategic planning for risks mitigation, sources/purchasing/procurement of reusable materials from sustainable suppliers, and logistics. If this approach is considered in the Greater Port Harcourt City Development project, the challenges around inappropriate land and water use will be addressed.

2.8.1.3. Executing Phase:

Zwikael (2009) emphasises that the executing phase of a project involves resource delegation. It the most resource-intensive aspect of any project as all level of coordination is carried out during this process. Sustainability principles are integrated into the project by applying sustainable measures through the daily operational activities of the project. Sustainability principles can be considered by caring for the well-being of project team members and end-users (safe working condition, a living wage, health and safety, holiday policies, and personal development scheme). Sustainability principles are integrated into the controlling process by controlling and monitoring the Key Performance Indicators of sustainability.

2.8.1.4. Monitoring and Control Phase:

In the monitoring and controls phase of the project, quality is checked against the business case to ensure that expected benefits are benchmarked and achieved, and if not redefine the control any derailment. According to Greiman and Warburton (2009), monitoring a complex project to ensure it stays within cost and time requires adequate planning and robust risks mitigation strategies. They further emphasised the importance of enforcing project standards for all project contractors.

2.8.1.5. Closing Phase:

Integrating sustainability principles into the closing phases of a project seems less appealing, but this is also an essential phase in a sustainable development project. However, it is important to note that the result/handover or acceptance of the project by stakeholders at the closing phase determines the projects' sustainability. Integrating sustainability principles at the project manager's level, enables project managers to recognise their level of responsibility. The responsibility of project managers in a sustainable development project is to ensure that goal to have a balanced triple bottom line is fulfilled; the project meets its stakeholder's needs; the project is not a threat to the environment, and it will not have a negative impact on the economy. Integrating sustainability principles at the organisational implies being responsible for core activities/ processes involves in the value chain that is the ability to influence other participants to ensure that products and services are sourced, produced and delivers leaving a zero footprint on the environment.

Table 2.1 Sustainability Principles and their Impact on Project Management Phases

Project Management Phases	Harmonizing the triple-bottom-line	Project Orientation-Short/long-term	Local and Global content	Consuming income, not capital	Transparency/ Accountability	Personal values/Ethics
Project Initiation	High impact	High impact	High impact	Low impact	High impact	High impact
Project Planning	High impact	Hight impact	High impact	High impact	High impact	High impact
Project Execution	High impact	High impact	High impact	High impact	High impact	High impact
Project Monitoring & Controlling	Moderate impact	Low impact	Low impact	Low impact	High impact	High impact
Project Closing	Low impact	High impact	Low impact	Low impact	Moderate impact	Moderate impact
Future Maintenance	Low impact	Low impact	Low impact	Low impact	Low impact	Low impact

(Source: Author)

The impact table in Table 2.1, was developed in a previous research study to enable effective stakeholder's management with a project environment. The study was conducted in 2013 as part of a master's degree dissertation "The Impact of Sustainability on Project Management: Case Study of the Greater Port Harcourt City Development Project in Rivers State, Nigeria" (Jack, 2013). The investigation was conducted with selected stakeholders in Rivers State; the study was geared towards understanding stakeholder's perspective of the six principles of sustainability in correlation to project management phases. The findings of the study revealed that stakeholders consider certain aspects of the project phases to be critically important, and they ranked them High Impact against the sustainability principle. The impact rates were derived from critically analysing the data from interviews with stakeholders during a Cultural Centre Project in Port Harcourt. In that study, it was evident that stakeholders do not have a clear understanding of what sustainability is or how to set indicators to be achieved. The study concluded that before any development project, there is a need to liaison with stakeholders, educate them on the need for the project, ensure that they understand the project aims and benefits, understand their needs/ concerns, and set the success criteria around fulfilling those needs.

Silvius et al. (2012) opine that sustainability has positive impacts on project management. They maintain that sustainability considerations in project management can enable innovative processes, thereby improving projects', project managers', and organisations' reputations. Sustainability considerations promote an integrated design, procurement and construction. That is sustainability allows collaboration among all professionals involved in the project. Sustainability considerations in project management processes help promote the quality of life by managing and delivering projects that have less impact on air, water and land. Sustainability considerations in project management processes reduce the potential for legal risks of being sued for damage caused.

According to Singh and Debnath (2012) Sustainability conditions advocates that projects must be delivered in a way that it supports developing countries to achieve their sustainable development goals. Such projects must be designed to reduce waste by reducing the amount of energy consumed, reduce waste of natural resources, reduce waste of human capital, reduce the amount of household waste to reduce further the waste that goes into landfill and ocean dump. Not adhering to sustainable project management practices can make the project derail from its objective and scope. Sustainable resources are costly; it increases the total cost of a project and has a substantial adverse impact on suppliers and sponsors. Therefore, the concept encourages local sourcing of material and labour, alternative sources for renewable, which will benefit both the stakeholders and encourage sustainable consumption.

On the other hand, project schedules are usually extended in a sustainability-related project because of the long-term nature of the project. Similarly, additional perspectives on quality can affect the project in general. Conversely, salvaging one aspect of sustainability increases the impact on the other aspect. Thus, it is argued that nothing is sustainable in sustainable development. Predominantly, unsustainable practices can affect resource sources, thus depletion of the environment, which can lead to a natural disaster. It is imperative to note that unsustainable practices like landfill and use of cash crop/ trees for energy can increase the cost of living (for instance, increased oil and food prices). Project management firms and other practitioners in the emerging economy need to develop an innovative mindset that advocates sustainability that will enable them to operate within the green paradigm (Bourne, 2008). The green paradigm is increasingly becoming a more feasible region for developed countries because several best practices are instilled in their project management processes.

2.9. Sustainable Urban Development

Sustainable urban development as a concept emerged to strengthen and support different developmental theories and strategies. It addresses issues like sustainable housing, sustainable transport and sustainable energy, and its primary aims are to tackle challenges associated with the issues as mentioned earlier to improve, protect and conserve the ecosystem (Otegbulu and Adewunmi, 2009). Sustainable urban development strategies are significant drivers of a sustainable urban area. Fundamentally, the way cities are shaped, and develop solely on the way we live; our social welling being and how we consume space, therefore, if we change our behaviour, sustainable urban development can thrive. As shown in the diagram below:

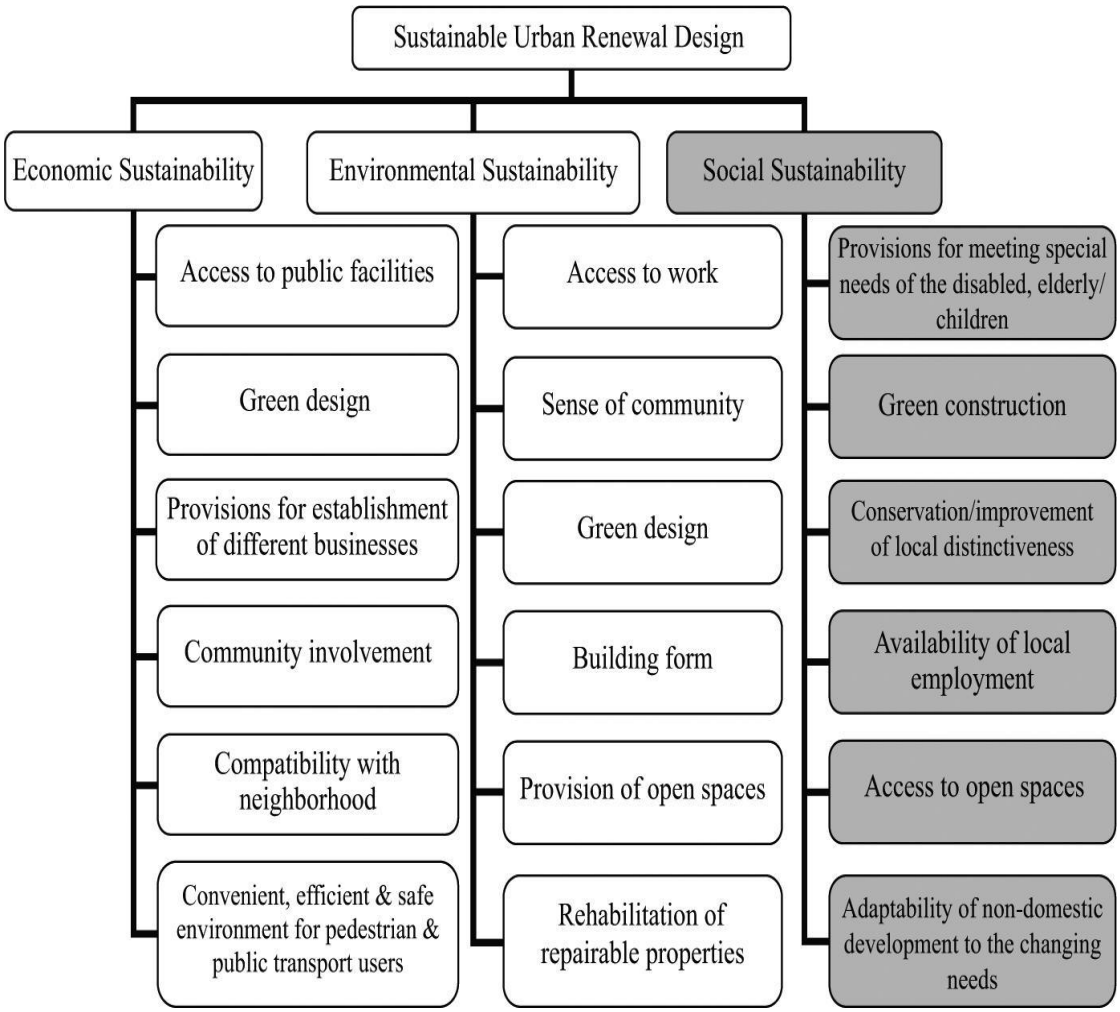

Figure 2. 8: The framework of Sustainable Urban Renewal

(Source: Adopted from Lee and Chan, 2010).

Lee and Chan (2010) and Macke et al. (2019) described an environmentally sustainable city, as one that accounts for zero pollution, generates less waste, emits zero carbon from fossil fuel, and conserves its natural habitats. According to Chan and Siu (2015), the concepts of sustainable urban development emerged to guide policymakers solve social problems and other related issues. Gelrud and Loginovskiy (2016) pointed out how social support encourages social cohesion and enables a development project. Conversely, for an urban infrastructural development to be successful, it must have stakeholders support to be able to attain the attributes as shown in Figure 2.8 above.

Urban development involves vast stakeholders' interest, and urban development issues cannot be effectively addressed without critically addressing them from different stakeholders' perceptive. Therefore, stakeholder's management and engagement are very important aspects when investigating urban development projects. Joseph (2008) inappropriate stakeholder's management accounts for some of the characteristics of project failure factors globally. In another vein, it is essential to conduct a detailed analysis of how the stakeholders are affected by projects and identify proactive measure to be taken to ensure that their rights are not breached in implementing urban development policies.

Developed countries like the United Kingdom and Germany have keyed into the importance of making urban development policies and initiatives the priority of the government. This approach has recorded significant progress since it was initiated a decade ago. There is no defined or absolute solution to solve problems of urban areas. The only way is to steer sustainable development initiatives and strategies towards the development of infrastructures (Tabane et al., 2016); renewable energy, energy-efficient transportation modes, heat and cooling; sustainable construction, sustainable education, sustainable health care, sustainable housing, sustainable tourism, sustainable business management to incorporate technology and innovation into the entire supply chain and business management processes. Otegbulu and Adewunmi (2009) posited that infrastructural development must be designed sustainably to encompass its neighbourhood; otherwise, sustainable development cannot be achieved.

It is important to emphasise that the complexity that exists in an urban development project cannot be ignored as it involves other complicated aspects of urban living. Urban

development has evolved from the conventional approach of providing necessary infrastructures, to a more integrated approach; embedding sustainability principles into the development processes of urban areas. This approach adopts cutting-edge technologies and innovation. Policies need to be geared toward environmental conservation and protection, to reduce carbon footprint and improve the quality of life through supportive community programmes such as environmentally sensitive policies place emphases not only on economic growth but on balancing the triple bottom line of sustainability (people, profit, the planet also referred to as triple bottom line). To drive physical developmental toward improving transportation, housing, energy, water, waste management, education healthcare, information technology and commerce.

Li and Qin (2014) maintained that sustainable urban development is a window, through which the structure of urban governance is examined and reorganised. Urban infrastructures (housing, roads, water, electricity) are expected to expand along with the growing population to meet up with extreme demands. According to Agyekum-Mensah *et al.* (2012), sustainable development is a strategy used to appropriately manage physical, natural and human assets through urban development projects. Urban areas do not only need new infrastructures but sustainable infrastructures that are driven by innovation and cutting-edge technologies. Infrastructures that will deliver efficient and effective good and services that will promote the sustainable natural resources, promote the carbon-free environment, recycle water, sustainable healthcare, sustainable housing, sustainable transportation, intelligent mobility, recyclable solid waste and sustainable social community living.

Sustainable urban redevelopment is an enabler of economic growth, environmental efficacy and social prosperity (Nkamnebe, 2011). Sustainable urban redevelopment considers sustainability as a concept to be closely knitted with social and cultural values, as the concept is influenced by demographics. Sustainable urban development is an opportunity for developing countries to attain sustainable development and improve the quality of life in urban areas. Sustainability encourages uniform development, and achieve the goal of achieving consist growth in urban areas; several objectives must be met, the aim is to integrate sustainability principles into the project management processes of developing countries.

Sustainable urban development projects are complex; hence, the need for it to be modelled appropriately. Sustainable urban initiatives advocate considerate practices, including the use of renewable materials in building infrastructures, which hugely mitigates resources source depletion. Robust feasibility studies are required to establish the workability and adaptability of the design, particularly social feasibility (Laird and Venables, 2017). It is inappropriate to design urban development without the input of stakeholders. If possible, there should be advanced modelling and simulation to allow stakeholders to plug in their ideas and test the viability, bearability, equitability and suitability of the project.

2.10. Chapter Summary

Undoubtedly, sustainable urban development is profoundly the way forward for global sustainability. Therefore, sustainability principles must be adopted and implemented in any developmental processes, including urban development projects. Urban development projects such as infrastructural developments and social development have both short-term and long-term benefits. Hence, it is of utmost importance that they embed sustainability principles that will ensure that they fulfil their long-term goals as they strive to create more liveable cities, where humans live in harmony with their natural environment. Getting urban development right can solve the problem of climate change; therefore, the idea is to embed sustainability principle by incorporating technology and innovation to stimulate wide-scale change that can improve the quality of life through initiatives of 'smart cities' and 'eco-cities'. The next chapter will provide a comprehensive account of how the industrial revolution in Europe foster colonisation of African cities by the West. It also presents a narrative on how African cities has evolved as a result to the colonial ruling, the political issues that most African cities had to deal with the post-colonial era, the unprecedented issues of globalisation and modernisation. This chapter has presented two models that can be applied to assess the sustainability aspects of the Greater Port Harcourt City Development project. The disaggregated model (Figure 2.8) can be used to categorise the issues that arise from interviews with stakeholders and can serve to incorporate stakeholders' point of views that are usually excluded in urban development projects in Africa. Also, the integrated sustainable project management model will be utilised to assess how successful the project has been by incorporating these goals.

CHAPTER 3: INDUSTRIALISATION IN EUROPE/AFRICA

3.1. Introduction

This chapter discussed the historical urbanisation in Europe that resulted from the outcome of the industrial revolution, which further spurred colonial ruling of African countries and how African urban areas emerged as a prototype of Western cities. It identifies how the two trends were related to each other because industrialisation fostered colonisation of African cities by the West. This distinct context explains why urban areas in Africa have their distinct challenges, which are not fully recognised and explained by Western urban development theories.

3.2. Industrialisation in Europe

With inferences from post-war urban theories like modern urban theory, public choice theory and urban development theory, the literature review addresses how the late 17th-19th-century industrial revolution in Europe fuelled global urbanisation and modernisation. According to Allen (2011), the British industrial revolution of the late 17th through to the 19th century predominately brought about technological advancement, and it spurred several aspects of manufacturing. However, Ashworth (2014) posited that the industrial revolution was the offspring of an ideological stance that was brought about by the doctrines of economists like Adam Smith, David Ricardo and Thomas Malthus. Their doctrines and theories advocated the free market, comparative advantage, natural selection, political and economic policies, which were aimed at economic integration and latter national innovation system.

According to Ely and Perlman (2015), the foundation of the industrial revolution was based on industrial capitalism that focused on eroding the world market, which later introduced rent as a source of industrial capital. The free market economy policy enabled industries to attain their highest level of productivity through the exchange of technology, human, natural and manufactured capital. That stance later became an issue as development erupted in most of the European cities. According to Davis (1955), as cited in Zijdeman, (2009, p.459) "*industrialisation is the use of mechanical contrivances and inanimate energy (fossil fuels and water) to replace or augment human power in the extraction, processing and distribution of natural*

> *resources or product derived from that place*". Industrialisation spurred sophisticated economic growth and industrial technologies that were encouraged by different infrastructural developments, including local and international trade, manufacturing industries, communication, educational skills, maritime and land transportation. This trend shows that there was a substantial level of interdependencies between nations (Inglehart, 2001). The shift from unskilled labour to occupationally skilled labour created large-scale demand for education (Morris and Fessehaie, 2014). This leap was significant, and it created a loop between producers of raw materials, manufacturers of products, transporters, distributors and the consumer/customers (Zijdeman, 2009).

According to Mokyr and Nye (2007), the British industrial revolution is one of the most critical watersheds in human history as it spurred urbanisation, globalisation and modernisation. This era was not necessarily the most positive for those subjugated, but it gave rise to several social and technological inventions, education, economic progress, and commerce through a change in the labour market (Zijdeman, 2009), local and international trade (Allen, 2011). Zijdeman (2009) industrialisation is often associated with urbanisation that brought about a shift in population growth. It can be said that; the urban population was increasing because of employment opportunities in factories, which was as a result to innovative technologies such as steam engines, spinning jenny, and other entrepreneurial innovations appeared, and have played a significant role in global prosperity and urban mobility (Xu and Li, 2011).

According to Szirmai (2012), industrialisation triggered a prominent level of human awareness in terms of trade; it was the catalyst for growth in commerce and international relations across the globe. Consequently, commercial activities expanded through improved trade and communication networks. Globalisation has significantly enhanced the standard of living (Ashworth, 2014). Conversely, Krepela (1965) posits that industrialisation brought a world-wide problem in the form of technology that fostered new jobs and increased urban mobility. However, Ashworth (2014) posed a strong argument on how the phenomena have transformed the world in terms of tangible and intangible infrastructures.

Agreeably, industrialisation has significantly stimulated the growth transformation of both soft and hard infrastructures and has created a fundamental change in how we work, live and think (Xu, 2018). For instance, industrialisation is the reason why various means of transportation has thrived. According to Lall and Pietrobelli (2005), pre-industrial villages were associated with the exchange of goods and services (trade by barter). Similarly, Xu et al. (2018) pointed out that the changes in areas like production, transportation, housing, communication network and trade emerged from the industrial revolution. Agreeably, the era was significant to how a variety of leisure activities were established, and it also fostered the growth of cities.

By and large, what is happening now around the globe is an advanced process tied to innovation and technology. According to Lall and Wangwe (1998), the industrial revolution stimulated the growth of villages to towns that were mainly associated with commerce, trade, craft and industries. In the era, towns grew into cities and became highly industrialised with various levels of manufacturing and distribution activities. This also stimulated the development of an urban area that brought about heightened commercial activities and economic growth. The post-industrial era emerged with amplified growth of urban areas that fostered various forms of migration, and then the population began to grow unprecedentedly.

In simple terms, the characteristics of urban areas boil down to an area with established road networks, availability of utilities on site, drinkable water, housing density, the density of commercial activities with industrial space, availability of recreational spaces, availability of public transportation, ability to ensure decent work-life balance with the capacity to serve the new development. The transformation process of towns into urban areas has both its merits and demerits. For example, technological advancement in communication networks, education, transportation, international trade, economic growth, and urbanisation was the greatest achievement of the time. However, Zijdeman (2009) postulates that industrialisation also had its corresponding indirect effect, and this reflected in social, economic and environmental consequences.

Regrettably, some of the profound consequences of industrialisation are unprecedented growth of urban areas, increase in population, and breakdown in the structure of traditional societies caused by migration and immigration. The strings of challenges associated with

industrialisation are complex, and their impacts are most damaging and have a direct impact on the various string of capital developments.

3.3. Industrialisation in Africa

According to Wang (1999), the African continent had a different experience of the industrial revolution; the era emerged with the growth of urban areas, increased migration and later breakdown in the structure of the African value system as a result to colonisation, and a similar experience was encountered in the Asian continent (Morris and Fessehaiem, 2014). The most crucial aspect of industrialisation in the African and Asian continent was the pressure to develop rural areas as recognised in a study by Wu and Zhi (2016), the study focused on how tourist migration put pressure on the culture of rural areas. The further emphasised how this factor caused the displacement of indigenous people across the Asian continent. Urban areas are described as human settlements with high population density, modernised infrastructure in the built environment and services sector. Wang (1999) *"An urban area is a region where urban features dominate",* Urban areas grew rapidly beyond expectation (Yao et al., 2013), and not long after modernisation and urbanisation followed with their challenges associated with urban life.

Africa countries rushed into the process of urbanising their towns and villages, and it is unreasonable for them to embark on the journey of wanting to tackle issues associated with urban development without first establishing the root cause of the problem. Urban development is a metaphor, and it cannot be understood without a proper understanding of how the development began. It is, therefore, important to first understand the history of how the urban area emerged, understand what change in the standard of living before the industrial revolution, then investigated the factors that have caused the reverse 'urban decay'.

According to Lall and Wangwe (1998) industrialisation fostered development in Africa after the British, French and American colonist left. This invariably means that the British, French and American colonist brought development to Africa during colonisation, which relatively echoes the decline of the countries they colonised. Factually, most sub-Sahara African countries like Nigeria, Ghana and Cameron were colonies of both the British and French colonist, and these regions have a long history of underdevelopment and urban decays. The

towns and villages of those countries were invaded and changed into urban areas, which was transformed through the trade of cash crops. Although they had the resource, those countries are still very poor and underdeveloped. Industrialisation emerged in Africa with competition and exploration of natural resource (Osei and Gbadamosi, 2010). They further elaborated on how cities and countries compete with one another for trading opportunities of cash crops, and the later was resource exploitation and depletion.

3.4. Urbanisation in Europe/Africa

Urbanisation is a phenomenon that emerged to address how urban areas or cities should be conceptualised, designed and developed to benefit the people living in them. Urbanisation happens through infrastructural development which fosters economic growth (Babatunde and Perera, 2017). The phenomenon has significantly improved the standard of living in African cities through the creation of housing, job and access to basic amenities. Several strategies have been adopted to improve the quality of city life extensively, and most of those initiatives constructively become strategies that have developed into urbanisation models (Tabane et al., 2016).

According to Gessner et al. (2016), urbanisation and development are mutually dependent, such that one cannot be considered without the other. According to Tabane et al., (2016) and Royuela (2015), urbanisation is the physical movement of people from a rural area (underdeveloped areas) to urban areas (developed areas). Similarly, it is the increasing proportion of people living in urban areas in search of better opportunities. Urbanisation happens in several forms, and it could be internally or externally. There are projections by the UN's that by 2050 developing countries will have the highest rate of population growth and at the same pace, internal migration will be a key component of socioeconomic growth. Urban areas will be massively transformed and become a mechanism of population redistribution (Oucho and Gould, 1993).

Albeit, urbanisation having several merits that transform urban areas with modernised infrastructural development, it is a complex process with enormous challenges. Scott and Stroper (2013, p, 21), "this mass of urban relocation must now be set in the wilder context of society as a whole, without, however conflating the two so that the distinctiveness of the city is lost", Despite, the challenge of losing the distinctiveness of cities, urbanisation is still

a prominent feature of our world. Cities around the globe have transformed through urbanisation, and different urban improvement initiatives have been deployed to tackle the complex composition and processes of urbanisation. Conversely, cities appear to have an impulsive effect on the people that resides in them, hence urban agglomeration. Agglomeration typically occurs around cities within consolidated infrastructural development. In African cities, agglomeration emerges in slum development and driven by several activities like market, church and craft.

3.4.1. Urbanisation Strategies

According to Taylor (1993), Nigeria is the most urbanised Sub-Sahara African country, but with acute infrastructural underdevelopment (Sanusi, 2012). There is a long history of urban decay, and the Nigerian government has taken several initiatives to improve infrastructural development by investing in different sectors. However, the challenge lays on determining what infrastructural projects is categorised as 'Federal', 'State' or 'Local Government'. According to Sinusi (2012), Nigeria requires US$10 billion annually to build and sustain the infrastructural needs of the country. Conversely, there is currently a high level of marginalisation that exist in the country, out of the 36 states only Lagos and Abuja have up to date infrastructural development plans. Lagos State has plans to expand the city to meet the needs of the people, which is paramount for any developing area.

Between 1980 and now, several initiatives have been implemented to combat the country's infrastructural issues, but none have lasted for more than a year. An initiative like the Structural Adjustment Programme (SAP) was introduced in Nigeria in 1986 to combat some of the overwhelming challenges of urbanisation in Nigeria (World Bank, 2011). In March 2008, the government again introduced the Bus Rapid Transit (BRT), only Lagos State was able to implement it because they can adopt the scheme to provide commuters faster, cheaper and reliable means of transport. Most urban development reforms were focused on economic-related issues like foreign exchange system, trade policy and agricultural regulations. It is important to establish that reforms in areas like transport, health, education, energy and waste management are key to aspects of urban development, and they can foster economic growth.

As urbanisation wave spanned across African cities, urban population sprang to innumerable figures, and its associated challenges erupted; poor sanitation, food scarcity, lack of housing and breakdown in urban infrastructure. According to the World Bank (2011), urbanisation is challenging, and it is a major factor of the increasing urban population and its associated problems. The World Bank Report (2011) further pointed out that, despite 54% of the worlds' population living in cities, the numbers are expected to increase in the shortest time possible. The growth in urban population will tremendously increase the challenges of urban areas, especially in developing countries. Regrettably, the problems will be multifaceted, and not just inside the cities but how to sustainably manage the inflows and outflows of basic needs like water, energy, food, and provision for housing. Royuela (2015), contrary to the trend in the 19th-century, migrants are more attracted to developed areas, and around 3% of the world's population lives outside their birthplace. This lay emphasis on the fact that more people will migrate to urban areas in the future, then what will be the fate of the towns and villages?

As emphasised by Scott and Stroper (2013), urbanisation analyses are prevailing, and it is essential to advocate on how to establish what different urban studies are addressing now since the traditional models are fading out. They further pointed out that urban studies should focus on addressing upcoming challenges and come up with diverse ways to sustainably manage the supply of natural resources such that cities are planned for as part of the circular economy agenda (Xu and Li, 2011). Times have changed, and urban studies must change along with the trend by considering sustainable measures. There is a need to change focus and begin to address pragmatic issues relating to urbanisation before the dysfunctionality of cities goes out of control as several social factors are influencing how cities develop. As emphasized by Macke et al. (2015), social participation helps in shaping the direction of sustainable development.

Before the emergence of climate change and sustainable development, urban development debates were focused on the urban algorithm, agglomeration urban development corridors and urban spatiality. Now urban studies have started addressing social issues confronting urban living, travel, mobility, health. According to Ejumudo (2013) "urbanisation is a phenomenon that describes the process of change in the growth of a population due to changing condition in the society". In recent years, studies on urbanisation and urbanism are

tilted more towards acquiring a fulfilling development approach through redevelopment, renewal, gentrification, sustainable cities, eco-city and smart city initiatives.

3.5. Colonial and Post-Colonial Urbanisation in Africa

According to Spies (2011), colonisation was the second transformational wave after the watershed of European industrialisation, and it uniquely transformed Sub-Saharan African countries. According to Bertocchi (2015), colonisation was a strategy used to control the human and natural capital of African countries. Several Africa countries were colonised by the British, France, and America. Bertocchi (2015) further pointed out the impact of colonisation and how it has significantly affected growth in Africa, he maintained "several decades after the end of colonisation, its legacy still exerts a significant impact on growth in Africa" (Bertocchi, 2015, p.9). Historically, the era was more about the exploitation of the drain of wealth. According to Myers (2011) across the continent map, colonies were exploited for their natural wealth. Many colonies suffered significantly because of dysfunctional institutions generated to control human capital. Nevertheless, it is a debatable argument if Africa was better off post-colonisation? Instead of focusing on the damage that created the dysfunctional institutions, some argue for an alternative focus on what the benefits of the era were.

Figure 3.1 Map of Africa

(Sources: Nations Online Project, 2018)

Westwood and Jack (2007) pointed out that postcolonial theories are complex, and colonialism still exists silently. The pioneer conditions of forceful leadership and the domination of the era through direct rule are still profoundly visible in Sub-Saharan African countries. Directly or indirectly sub-Saharan African countries still subject themselves to the colonial rule of the 'Dark ages' through ideological deprivation. According to Spies (2011), sub-Saharan African urban areas were uniquely transformed in line with colonial modernisation, which was mainly copied from European cities.

As postulated by Weiskel and Gray (1990) colonial administration primarily associated themselves with building roads and public infrastructure to encourage economic growth during the era to their advantage, but soon after independence, things fell apart. They developed the colonies as a prototype of the developed west and established the peripheries regions, which today cities still suffer various forms of deprivation as a result to the Township ordinance of 1917 that legalised segregation (Ejumudo, 2013). Fundamentally, social segregation is predominately an issue mainly associated with public infrastructures development and deprivation of rights. In the same vein, Bertocchi (2015) posits that in the 19th century colonial institutions have directly or indirectly shaped the extent of development in a way tailored for Europeans such that a high sense of segregation is seen within settlements. According to Rodriguez (2018), cities adapted the colonial urbanisation, and there was an infusion of both rural and urban culture. Conversely, such infusions between urban-rural culture is a very complex articulation for indigenous people in African cities because of the strong attachment they have with their culture.

Scott and Storper (2013) the post-colonial urban theories are based on developing inclusive urban areas, which scholars described as a comparative gesture called the "new urban particularism". Fenske (2010) speculates that modern infrastructures, modern social amenities, political and economic institutions were established to meet the basic needs of the colonialist (masters). In his view, the same way they made their colonies habitable, the same efforts could have been made to integrate the periphery territories into the worlds' economic system. Good infrastructural development is fundamental, and it simulates several forms of economic prosperity. Predominantly, literature refers to the entire exploitation as colonial domination. In the colonial era, most African countries witnessed a cash-crop boom, which Weiskel and Gray (1990) referred to as an unsustainable phenomenon. The cash-crop boom created avenues for slavery, and resource exploitation as cities in these colonies mostly depend on imported food, even though they are the producer of the produce (Weikel and Gray, 1990). Spies (2011) comments that the fall of communism in Russia and Eastern Europe, and the end of apartheid gave rise to several levels of exploitation.

3.6. Political Independence and Urbanisation in Africa

African continent hopes for development and political independence, but independence came with a detrimental price of stagnant economic growth, and political distortions, which relatively is the mechanism used to continuously maintain a superior stance in the colonies (Bertocchi, 2015). It can be debated, but the fact remains that in principle, Sub-Sahara African countries are still under the colonial watch. According to Ejumudo (2013) countries like Nigeria accepted to adopt the Millennium Development Goals out of the jurisdiction, the nation has a complex mix of urban challenges to tackle.

Regrettably, in the past two decades, not much has been achieved from the list of the Eight-Point Agenda of the "Sustainable Development Goals" because there are fundamental gaps around policy implementation in Nigeria. The nation has a long history of bad governance and policy proliferation and poor commitment by political office leaders. Going by Bertocchi (2015) the chronicle of colonisation and how it was introduced into a standard growth model, it is apparent that migration was indeed a mechanism that was used to restrict direct foreign investment and allow continuous exploitation. Such level of restriction-induced permanent distortion on capital accumulation, which led to negative growth, and an accurate reflection of what the colonies continue to suffer.

Subsequently, at the time when Africans thought, they could find African solutions to African problems, in terms of being part of the solution generation then, the situation became more difficult with development in the region impeded, poverty index raised, unemployment increased, thereby, resulting in eroded black families all around (Fourie, 2007). Africans hope to enter the twenty-first century with possibilities to develop countries in the continent with the existing natural resources crashed as African leaders embarked on a journey of vested-interest and corruption. According to Olaleye-Oruene (1998), corruption was the legacy of colonialism in Nigeria; hence, the region is still underdeveloped (Osei and Gbadamosi, 2011). The end of the colonial period was challenging especially for the sub-Saharan African countries, and the era resulted in the outbreak of war, political instability, cultural crisis, economic underdevelopment and ecological decline (Weiskel and Gray, 1990 and Osei and Gbadamosi, 2011).

Westwood and Jack (2007) also pointed out that the post-colonial era has a history of political independence across most African countries. According to a World Development Report (World Bank, 2011), African nations were and are still vulnerable to conflict because of poverty, and it became palpable after the post-colonial ethnic conflict in many colonies in the continent. Wan and Wang (2014) reported that Africa is the second-fastest global urbanising region with a rapidly growing urban population. Factually, this is worrisome as a rapidly growing population will create more urban problems; this is rather sad but true. Africa urban areas are not designed for the nature of urbanisation that they have witnessed in the past three decades, and neither do they have the capacity to accommodate such population growth (Tabane et al., 2016). According to Ford (2015), rural to urban march is relentless, cities are becoming denser, and satellite towns are building up rapidly, which is the root cause of slum development and urban decay.

According to Holden (2016) and Soderberg and Holden (2002), diverse cultures have names they use to refer to areas that have been forgotten or have suffered unregulated development, some of the areas are termed as a shanty town, sink estate, the pits and the even dead-end street. If care is not taken and policies are not implemented, shortly there would not be much difference between slum settlements and cities in Nigeria. Hence, Ford (2015) posits that managing cities has become a priority for governments, but interestingly, he questioned if Africa can leapfrog the usual development pattern and immediately adopt 21st-century advances? This view was, however, challenged by the fact that most cities in sub-Sahara Africa countries undermine the importance of urban planning (Kozlowski and Yusof, 2016), and development, while urbanisation and migration are threatening economic growth across the continent.

According to Osei and Gbadamosi (2011), African countries were self-sufficient, had strong cultural values and abundant natural resources. Things took a different turn when the French and British colonist invaded most of the sub-Sahara African countries. Ever since, the continent has faced significant challenges that have aggravated several environmental issues and ecological deterioration (Weiskel and Gray, 1990). Kollodge (2009) as cited by Spies (2011), suggests that the level of resource consumption may exceed it bio-capacity by 2020, which means natural resources are being used up to the point where they will no longer be able to meet basic needs of the current generation.

More than half of the population in sub-Saharan African countries are living below the poverty line (Spies, 2011; Akerele et al., 2012). This percentage is increasing, and it became more apparent with the recent outbreak of the Ebola virus between 2014 and 2016 that affected three West Africa countries: Guinea, Sierra Leone and Liberia. The problem is, how can countries develop to the point of being sustainable without eradicating poverty? According to Akerele et al. (2012), the issue of poverty is complex because it affects every aspect of a nation's growth. For instance, a nation that her citizens live below $1 cannot be conscious of resources reservation or conservation. The question is, at this rate of resource depletion and environmental degradation, how will the needs of the future generation be met? Africa is anticipated to be home to nearly a quarter of the world's urban population by 2050. As Cobbinah et al. (2015) asked, with such a level of population growth in mind, what are African leaders doing to accommodate the rapid growth? Will urban areas continue to decay and wait to be hit with the adverse effects of climate change?

Urban areas that are politically locked to new government reforms often suffer from a decline that affects their economic, environmental, social and political positions; such decline has a long-term impact on the life expectancy of its citizens. According to a World Bank Report (2019), the UN's Millennium Development Goals of Sub-Saharan African countries have made tremendous progress in keeping up with Agenda 21, nevertheless, under development in infrastructure is still high. Akerele et al. (2012) emphasis that across the continent poverty rate is declining because development has been on poverty reduction, and, there has been an improvement in human capital development, which, explains the slow growth in infrastructure development in Nigeria because every government shifts its focus from one aspect to the other, there is no consistency.

At this point, it is crucial to state that if a stringent measure is not taken, infrastructural stagnancy in Sub-Sahara African urban areas will make them unattractive to attract foreign investment opportunities. The consequences of that will be that African cities will continuously depend on unsustainable commercial activities that will continuously deteriorate the already impoverished conditions of those cities. Lack of capital investment in urban infrastructures has significantly impacted the rate of urban development; deficiency in infrastructural investment accelerates urban decay, and some of the associated impacts are increasing poverty, urban illiteracy, poor sanitation due to excessive generation of waste

without appropriate waste management measures (Holden, 2016). Nigeria and other sub-Saharan African countries like Angola, Liberia, and Sierra Leone are the producers of some of the worlds primarily sourced natural resources like crude oil, gold, diamond, chrome and cobalt. The African continent is rich, and wealthy, embedded with a vast deposit of natural and mineral resources, is essential to ask why African urban areas are experiencing such dilapidation? Why have urban areas failed to meet their expectations?

Urbanisation is known to have initiated notable changes in the development of both hard and soft infrastructural developments (Weiskel and Gray, 1990), like electricity supply, housing, education, water supply, road and public transport, health, sanitation, social services, waste and natural resource management. Many urban development scholars have associated the failure to gross systemic and institutional failure. Other author's associate the system failure to the growth in urban population size of sub-Saharan African countries. Lin (2014) posits that the African urban population surpasses those living in its rural areas. However, this can be traced back to the mass rural-urban migration that took place after the industrial revolution of the 18th century in Europe. As Raymond Holden mentioned in his book 'Nobody Cares, Forgotten Parts of British Cities', people move out of their birthplaces for several reasons like work, school and trade, but the effect of that is that those areas gradually become cut out of development and forgotten.

African cities have experienced unprecedented growth just like European, American and Asian cities. Sub-Sahara African countries that were colonised by the British and French colonies encountered rapidly initiated modern development that lasted for the period their colonist lived in the countries. The colonial administration managed the affairs of their territories; hence, they built areas that were a prototype of British and French cities in African cities, which to a large extent contributed and triggered mass rural-urban migration. Such transformational development did not only attract rural dwellers to cities, but it also attracted immigrants to those cities as they were modernised and had good infrastructures. Attraction to urban areas is significantly driven by some pull factors geared towards improving the standard of living (Jedwab et al., 2017). Pull factors are determinants that attract people to move into the urban area, for example, employment opportunities, favourable education, decent and affordable housing, good roads network and efficient public transport, access to clean water, electricity, affordable food, good health care and tourism (Wu and Zhi, 2016).

Most African cities have been overwhelmed by the growth in their population size without understating how the growth came; most African cities are now turning in the dilemma of how to cope with such unprecedented growth that comes with its associated challenges. Wan and Wang (2014) state that urbanisation is associated with considerable problems in several aspects; socially it stirs crime and illiteracy; economically it worsens income distribution, increased slum and urban poverty; and environmentally, it stirs several issues like climate change, increased carbon emission that causes air/water/land/noise pollution and eventually health issues. According to Wan and Wang (2014), mentioned that although urbanisation has several issues, it can also be a solution for environmental degradation, and result in higher urban productivity.

According to Osei and Gbadamoi (2011), while other countries are being recognised for either fashion or football, African countries are known for crime, poverty and disease. These are some of the challenges Sustainable Development goals are thriving to combat. Countries like the United States and the United Kingdom has undergone a full cycle of urban transformation, yet there are cities in these countries that still have areas that are physically deteriorated. For instance, the city of Manchester recently went through urban regeneration, where major infrastructural development works were carried out on roads, housing, rail and schools.

According to Holden (2016), renewing decayed cites is a moral responsibility, and it must be done inclusively, by all categorise of stakeholders. Cities in sub-Sahara African countries have experienced rapid population growth in the last three decades, but there haven't been corresponding infrastructural growth. South Africa have experienced trends of remarkable development that cannot be compared to developments in other Sub-Saharan African countries. Although, it can be argued that South Africa is developing because of the presence of the white population and the economic benefit for being part of the emerging BRICS (Brazil, Russia, India, China and South Africa). Mosta and Mahmood (2015) pointed out that the BRICS established a development bank to foster economic growth, provides resources for investment in various facet of infrastructure, from which South Africa is currently benefiting. Sustainable development projects are made available for its member countries and other developing countries. Indian's population growth in recent years has

been driven by information technology. China's urbanisation was driven by economic reform policy that advocated production and manufacturing-based cities.

Cities mostly emerge due to the production capacity of a given area, and such pull accelerates the economic growth and contributes to making urban areas self-sufficient. McKinnell further questioned the sustainability of such economic growth and urbanisation that is taking place in China. Nevertheless, it is argued that if the development plan is there, measures can be taken to tackle environmental issues. Most African cities, including cities in Nigeria, were created during colonisation; rural to urban movement embodies internal migration to primate cities, and it is the most significant movement of long term trends. Rural-urban migration is mostly driven by infrastructural development to improve income and quality of life. It can be argued that cities in Nigeria have no clear pull factors because most cities have no economic potential. The resources are most in the rural areas but lack of infrastructural development, especially in electricity, hinders the expected development level. For example, Lagos State is the commercial hub of the country, but nothing is produced in the city.

South Africa has witnessed a tremendous level of facet development after the apartheid (Rogerson, 2004). Fourie (2007) government adopted programmes like 'Reconstruction and Development Programme (RDA) and Growth, Employment and Redistribution (GEAR) to promote economic growth and eradicate poverty. Unlike the apartheid regime, Rogerson (2004) the development post-1994 was designed to be more equitable and socially inclusive. Rogerson (2004) again, postulates that the 2004 policy supports urban regeneration within different urban development zones, including the introduction of land reforms and land restitution in rural development. This initiative was not only focused on changing the landscape of South Africa but also to promote small business development. It can be argued that, if development focus tilts toward developing urban peripheries, there will be a substantial improvement.

3.6.1. Urban Development and Policies

Urban development policies are essential to promote and strengthen public services that deliver water, electricity, sanitation, transportation, education, health, and employment. Unfortunately, Nigeria, as a country, lacks the momentum to implement such policies around core infrastructural developments that will benefit all. Amidst such increasing population

growth, measures to control and manage urban development are not considered at all. Instead, unregulated development has created avenues for private companies to provide services at very expensive rates. The government have not considered the need for major policy reforms in land, housing, transport or education.

According to Kuma (2017), decades after colonisation, Nigerian urban development plans and laws are still based on the British Town and Country Planning Act of 1932. Brown and Chikagbum (2017) posit that government failed to create the Planning Board at both the state and local government level, and that led to compulsory demolition of properties in the name of urban renewal scheme. According to Fredholm (2015), Ghana has adopted the decentralised urban development planning system, which is still hugely influenced by British colonial model. Nigeria still does not have land use law; the land decrees are agreeably unfavourable for investors. The issues cannot be overemphasised because, notably, both the Federal and State government have failed to pay attention to national urban development policy. Such level of negligent by the government is what has dramatically made every single individual in Nigeria, a provider of their basic amenities, which has in return contributed massively to the issues of unregulated development. Unregulated urban development is risky and has severe environmental impacts.

Ejumudo (2013) coherent urban development policies are required to clearly define the parameters of urban and rural development for urbanisation processes, initiative and strategies in Nigeria. There is a dilemma when it comes to addressing urban development issues in Port Harcourt, River State, Nigeria. The city is well integrated into different rural areas, and theoretical urban peripheries have their specific model of development. In the case of Port Harcourt, it is difficult to distinguish the urban area from its peripheries, with several issues to address, where do one draw the line and what is the criteria to prioritise the challenges; shortage of housing? Insecurity? Poor sanitation? Or traffic congestion as a result of bad roads? Shortage of water and electricity supply? Across the nation, urban development has been bedevilled by poor implementation of policies, bad governance, corruption, and social disconnect. In addition to these problems, the current trends of globalisation and modernisation have had specific implication for urban Africa, which will be discussed in the next section.

3.7. Globalisation and Modernisation

Globalisation is a broad term used to describe a complex network of activities in the society, politics, economy and culture (Wittmann, 2014). While, predominately, modernisation describes the process of transiting from traditional practice to modern practice. However, modern practices in this context are classified as a digitally influenced practice that has evolved from traditional ways. Both wider trends need to be considered to fully understand how African urban centres can undergo sustainable urban renewal and regeneration.

3.7.1. Globalisation

Globalisation is not a new phenomenon (Liard-Muriente, 2005); instead, our understanding has evolved over the past four decades, especially on what we think it is and how we perceive it to be. Gaburro and O'Boyle (2003) the phenomenon has contributed significantly to changing cultural values and social norms. There are different driving forces of globalisation (Simplice, 2013), but firstly, it is essential to understand that it is a multi-perspective concept, which can be viewed from diverse lens including social, economic, cultural, political, technological and scientific standpoint.

According to Sifianou (2013), globalisation can also be defined as the interconnectivity of the world, which can be traced back to the need for humans to co-exist, farm and trade between international borders, it has played a significant role in accelerating economic growth and technology transfer across the international community (Hartungi, 2006). According to Wickens (2015), globalisation means different things to different people, how Europeans will perceive it will be completely different from an Africans perception. This perspective is determined by our ideology of Europe’s history of colonisation and the concurrent issues that came with the expansion of international merchandise (Van der Bank, 2010).

There have been reports on globalisation that suggest that the implications are multidimensional; its positive impacts include better education, improved human development, increased quality of life and its economic advantage of improved GDP and some of the adverse effects are food insecurity resulting from excessive importation of agricultural produce, resource source depletion, volatility in the financial market and

reduction of government revenue (Simplice, 2013). In the same vein, Hartungi (2006) opine that globalisation has thrown several challenges across developing countries, emphasising issues such as environmental degradation and abuse of labour.

Globalisation as a concept has its merits and demerits; it is also, necessary to bear in mind that it is either good or bad. For instance, to stay within the context of this study, globalisation has been responsible for exploitation in Africa, which is not suitable for Africans. On the other hand, globalisation has enabled the transformation of Sub-Sahara Africa countries, and it has opened several communications and trade channels across the world. Hartungi (2006) also pointed out that globalisation can open new opportunities that can result in the growth of the domestic economy, which Harvey described to be the linkage to capitalism.

According to Wittmann (2014), the phenomena of globalisation have focused on scientific analyses since the 1990s, which is a shift in paradigm. Van der Bank (2010) opines that globalisation signifies a new paradigm that is expanded in scope to cover other spheres within the global context like social, economic, political, cultural and technological (Liard-Muriente, 2005). The shift in paradigm created a wave that initiated new theoretical approaches that could not be benchmarked by developing countries; hence, the criticism that globalisation has methodological flaws concerning its application regarding homogenisation. Wittmann (2014) development is perceived as one of the benefits of globalisation, which is supported by the assumption of the emerging systems-theory. Liu et al. (2009) posit that the system theories is a fundamental aspect of development models that tends to address the uncertainty of in varies systems.

There are profound arguments that globalisation is a process of international integration through trade transactions, capital investment movement, migration of people and dissemination of knowledge. Then it is imperative and evident that societal needs drive globalisation, and such needs cannot be met without relocating to a developed (Liard-Muriente, 2005). Liard-Muriente (2005) further pointed out that trade relationship amongst developed countries was increasing because of globalisation, and he made further arguments on the distributions of income concerning the adverse effects of unskilled worked force in developing countries. Spies (2011) globalisation is a vehicle for social development, as it

provides concrete linkages to several socio-economic-political dimensions. Similarly, globalisation is a one-directional development process that is irreversible.

Wickens (2015) posits that globalisation is a vast issue, and it plays a huge role in development; therefore, it is essential to highlight the benefits. Globalisation will not only be emphasis economic growth, but it also addresses core issues in Africa cities, particularly around urban developments such as the Greater Port Harcourt city development project. The question, is Africa part of the development that globalisation echoes? If yes, why are Sub-Sahara Africa countries still in persistent poverty? Why are Africa countries still backwards when compared to global economic growth? Why is inequality still on the rise amongst African countries? Why is development still centric in Western countries, while, the resources are extracted from African countries? Why has globalisation not brought technological advancement to Africa? Rather African countries are dumping grounds from outdated technology.

Based on the assumption of the classical theory, African countries are limited in growth because of isolation and protectionist policy (Ajayi, 2001). In his opinion, a more liberal approach towards embracing globalisation will benefit African countries both locally and international. There have been compelling arguments that globalisation could be part of the increasing challenges of African countries, as the states were not internally prepared for the sort of development they are experiencing. One of the arguments focused on technological readiness is the fact that African countries are being used as dumping ground for outdated technology, which they have experienced historically on road-based technology, communication and even energy.

According to Baumgartner et al. (1976), the challenges of most developing countries are different in their capacity development and long-term dependency on developed countries. Their views were mostly tilted to creating alternative development strategies that will reduce the level of dependence on industrialised nations. The aim is for urban areas to develop into sustainable cities, smart cite, eco-cities. Globally, cities and urban areas are transforming rapidly because of globalisation and modernisation. A major challenge about such development is that African countries are marginalised, and they cannot cope with the increasing challenge of overpopulation (Tabane et al., 2016).

3.7.2. Modernisation

According to Zijdeman (2009, p.457), "*the term modernisation implies that there is a single mechanism at hand, which causes a number of macro-level developments*". Reyes (2001) states that modernisation theories mean that societies are more productive, benefits from education and welfare. He further pointed out some major assumptions of modernisation theories which states that: it is a systematic process; it is a transformative process; it is a forthcoming process due to its systematic and transformative nature.

Modernisation is a change process that adopts social system approaches in how it acclimatises to developmental, it is dynamic processes, and it is dependent on western cultural values and social institutions. Based on Bill Rostow's perceptive, 'modernisation' is an evolutionary process that ethnocentric on European and American values. The values and culture of Third World countries are predominantly seen as traditional. Conversely, this can be some simple explanation of why urban-rural peripheries are being developed without the consideration of losing rural culture and values.

Modernisation is a transformational process that mostly indoctrinates long-term plan; hence, it is an irreversible and progressive process. According to Reyes (2001), once Third World countries encounter modernisation, it cannot be reserved or stopped. Nevertheless, modernisation has impacted the African continent negatively because most African countries are not technically prepared for the transformation that emerged as a result. Hence, the government cannot cope with the numerous challenges it presents through infrastructural shortages (housing, education, health, waste).

There are two distinct aspects of modernisation theory. Urban theories have evolved around several discrete practices and strategies; conversely, urban development theories have been fine-tuned in diverse ways to accommodate the pace of the macro-level development in urban areas Zijdeman, 2009). These theories are based on some essential postcolonial urban theory, assemblage theoretical approaches and planetary urbanisation (Storper and Scott, 2016), that has intricately fostered the urbanisation in all ramification.

The post-war urban theory was centric on democratic pluralism and regime politics, which echoes more of political strength and control. According to Weiskel and Gray (1990), the modern urban theory is centric on economic development and growth, which have imperatively focused on economic transformation and growth in the bit to change or improve a system. According to World Bank Group (2017) "urbanisation is a driving force for growth and poverty reduction", this, however, can be said to have been relative to both the post-war and the post-modern urban theories that emerged in the 1980s. Sustainable change in complex socio-technological urban development can shape new system development.

Unlike the 'post-war urban theories', 'post-modern urban theories' are profoundly known as 'development theory'. Agreeably, development theory consists of varied theories that are predominately centric on change and social transformation like mass communication, mass transport and education. They often adopt several strategies and approaches to achieve valuable outcomes as alternative paths to improve social, human and economic prosperity. Urban theories are mostly agglomeration of social theories like classical, neo-classic and modern, that revolves around social, political and economic frontiers. Since the emergence of sustainability, it has become the focal point of most urban studies.

Urban theories cannot be holistically addressed without an all-encompassing social theory at the centre. The society is made up of social actors that control the dynamics of the political, economic and environmental paradigm. These paradigms are intertwined with factors such as cultural, economic, political and technological determinism, which often dictate the stance of an urban area. These varied factors are significant as they are subject to several disruptive influences, especially in the African and Asian continents.

The 'public choice' theory by Logan and Moltoch (1987) surpassed the other theories as it was primarily driven by social relation and economic force. Public choice theory, which places primary emphasis on social actors and their societal rights was a change mechanism. A critical review of all three theories, urban theory, it can be argued that the public choice theory seems to be more realistic in this age and era of modernisation and globalisation. The world is socially constructed, and several factors influence social actors. Political democracy and regime ruling are both controlled by the stakeholders, and their needs are significantly constrained by interest, power and influence.

In other words, it can also be argued that both rural and urban stakeholders are influenced by the biosocial phenomena that establish the rationale of 'urban space consumption theory'. While urban areas are rapidly developing to meet the demand of the growing population, it is essential to establish that there exists a niche of rural-urban dwellers that have a significant presence in increasing overlapping challenges of urban areas. Rural-urban migration is mainly driven by both pull and push factors (Bilham-Boult et al., 2001).

Gago-Cortes and Novo-Corti (2015) argue that industrialisation, globalisation, modernisation and urbanisation are all concepts that fuelled unprecedented population growth. Whether we refer to them as a concept or phenomenon, they have immensely increased the pressure on both soft and hard infrastructural development (Royuela, 2015). Soft infrastructures are service driven by health services and education, and hard infrastructures are tangible assets like roads, housing. Modern urban theories will discuss the developments that took place in sub-Sahara African cities during the colonial era, and the downturn of those cites post-colonisation.

In the same vein, Gago-Cortes and Novo-Corti (2015) review will look at how the world transformed into a global village through technological advancement and innovation that emerged from the industrial revolution, which again, spurred rural-urban migration, national immigration and global urbanisation. It will also look at how the quest for a better quality of life encouraged technological advancements that coined in 'modernity' that have now increased the level of destructive human activities, thus climate change and its associated impacts.

There is increased recognition that Nigeria is certainly going through the different stages of modernisation, but there are fundamental challenges that cannot be overlooked. Issues like corruption that make cities to be marginalised and other being used as technology dump sites by the west, which has relatively affected the trend of urbanisation and globalisation in most African countries. The issue of unequal development always creates a degree of backwardness in how developmental strategies are implemented. Urbanisation as a development strategy is influenced by some pull and push factors, guided by other theoretical implications, and empirical stance that is becoming more obvious in the face of globalisation (Royuela, 2015).

The pull and push factors are macro-level development that influences migration and immigration. The pull factors attracted people to an urban area that causes growth in population. These are factors that make urban regions became overpopulated, and the later effect is that urban infrastructures get overstretched. The growing need for people to move to urban areas increases the rate of destructive human activities that have created the chain of urban problems, which is rapidly damaging the ecosystem. Urban development studies neglect the issue of unequal development particularly amongst African and Asian countries, but modernisation theory emerged and raised the hope of developing countries by making assumptions that these countries can be developed and become self-dependent only if they have control of their resources and equal development can be researched. Predominately, equal development can potentially address some of the strings of sustainability issues, which have resulted in the dreadful state of most African urban areas.

3.8. Chapter Summary

This chapter exposes some of the fundamental issues that have contributed greatly to the challenges of most African cities. The industrial revolution in Europe redefined the process of urbanisation within Africa continent through colonialization; therefore, urbanisation and modernisation issues cannot be addressed without reflecting on pre-colonial and post-colonialization. Holistically, urbanisation, modernisation and globalisation are concepts that are intertwined, and this needs to be recognised if sustainable urban renewal projects are going to be successful in Africa. The specifics of the country context and their respective cultural issues affecting Africa urbanisation will be discussed in the next chapter. It will provide details of the challenges being faced in Port Harcourt City and also highlight some of the specific issues with the Great Port Harcourt City Development project.

CHAPTER 4: COUNTRY CONTEXT

4.1. Introduction

Nigeria is in West Africa on the Gulf of Guinea with common territorial boundaries with Benin, Chad, Niger and Cameroon. Nigeria is situated on a total landmass of 923,768km^2 (356,669sqm), 13,000 square kilometres of water within the shore of the Atlantic Ocean. The country was under the British colonial rule from the early 19th century up till 1960. While under the British colony, Nigeria was divided into Southern Nigeria Protectorate and Northern Nigeria Protectorate in 1914. The administrative and legal structure of Nigeria was British, which was then known as the indirect rule and was practised through traditional chiefdoms.

Figure 4.1 Map of Nigeria

(Source: CIA, 2020)

Nigeria gained independence in 1960, shortly after she plunged into a civil war that lasted for three years from 1967-1970. Afterwards, the country was governed by an alternation between the civilian government and military rule, until finally, stabilised into a democratically elected government in 1999 (Ehigie et al., 2006). Nigeria is made up of 36 states zoned into different regions North Central: Federal Capital Territory- Abuja; North-western: Kaduna, Kano, Zaira; North-Eastern: Maiduguri; South Eastern: Enugu, Onitsha, Owerri; South-western: Lagos, Ibadan, Ilorin; South-Southern: Port Harcourt, Calabar, Benin and Warri. Nigeria is known as the Giant of Africa is the most populous country in Africa, with a vast wealth of natural resources (Sanusi, 2012), both renewable and non-renewable.

Nigeria amongst other Africa countries is on a mission to attain sustainable development (UNECA, 2012), and the government have, however, adopted different strategies including National Economic Empowerment Development Strategy (NEEDS) in the bid to attain sustainable development as part of Agenda 21 of the Millennium Development Goals (MDGs). According to IMF (2005), strategies like NEEDS are geared towards redefining and repositioning value orientations, which are centric on poverty reduction, wealth generation, and empowerment for all.

Agenda 21 highlights several targets that are expected to be met to attain sustainable development; however, none of these appears to have been reached in Nigeria because of several known factors, including corruption. The country is struggling with her multifaceted infrastructural deficiency. Therefore, Otegbulu and Adewunmi (2019) postulate that the concept of sustainability is the same globally; however, the awareness and attitude for embracing are different, and people have different perspectives. For a country like Nigeria with multiple cultural backgrounds and belief system, it will be difficult to adopt and implement sustainable development objectives, as the underlying principles are still not clear to most Nigerians. According to an Africa Human Development Report (2012), the challenge with most African countries is their inability to integrate sustainability principles into their national programs, policies and goals.

4.2. Urban Development in Nigeria

In recent years, several cities in Nigeria, including Port Harcourt and Lagos, have employed several urban developments, urban renewal, and urban regeneration strategies to combat the issues of unsustainable living in urban areas. Strategies like slum clearance have been adopted by the Nigerian government to restore urban infrastructure, redevelop the decayed historical buildings, and revitalisation of cultural heritage to restate the cities to their past glory. From 2009 till date Lagos state has reformed her urban development policy, adopted and implement diverse strategies to build a world-class city that is economically sufficient. Other cities, including Port Harcourt, are making efforts to benchmark such development but there several underlying issues that are hindering the development of the city.

According to Williams (2008), the region was sparsely populated by fishermen, farmers and traders. Unlike the western providence, the area was not under the jurisdiction of traditional leaders who seemed to oppose the British naturally. Hence, they benefited greatly from the British; they are highly enlightened and educated people, yet the underpinning assumption of modernisation is limited. The periphery rural areas hold firmly to their cultural and traditional values, and this significantly impeded the development of the city. Port Harcourt city has grown tremendously, especially after the emergence of the democratic government. The city benefits from the presence of an airport, rail connection and seaport like Onne Apapa port in Lagos, which is the biggest seaport in Nigeria.

4.3. Urban Decay in Nigeria

According to a World Bank Report (1991), infrastructural development is a process "encompasses better education, higher standards of health and nutrition, less poverty, a cleaner environment, more quality of opportunities, greater individual freedom and richer cultural life" Generally, any urban area that does not fulfil the criteria is underdeveloped, which is referred to as 'Soft State' in Myrdal's concept of a failed state. Therefore, urban decay is the reverse process of urban development. Globally, urban areas are being faced with several degrees of urban decay fuelled by the rapid and continuously growing population. Increase in population growth has the potential to create huge impacts on the infrastructures of a city, especially when the town has stagnant economic growth. With the rapid growth of slum development and waterfront settlement in and Nigerian cities, it can be

argued that slums formation is an epidemic that sweeps across urban areas, and over time it becomes difficult to comprehend how these informal settlements grow to become integral parts of a city. Slum formation can be described as a vicious circle that is very complex to control, slums will continue to grow, in the absence of government intervention and strong urban development policy (Nestico and Sica, 2017).

African countries experienced urbanisation during the time of colonisation, and within that time, industrial activities were driven by colonial trade relationships (Coquery-Vidrocitch, 1991). Among the Sub-Sahara Africa countries, it is easy to see the same trend of development. Particularly with countries that were colonised by the British or French government. As a result, there has been mass migration and a pattern of developments that are clustered around specific regions in countries like Nigeria. Most old cities like Benin City, Ibadan, Abeokuta and Port Harcourt have experienced decades of unregulated development pattern, which has created some multi-dimensional challenges in the cities. Often Government, urban planners and other relevant institutions overlooked the formation of slums till they became unregulated and fostered urban decay. The population of slum-dwelling grew beyond comprehension, although they could eventually develop, they can gradually be integrated into the main city with the right intervention. Over time, it became more challenging to meet the infrastructural needs of the growing urban population along with the slum population.

Urban decay is a growing problem for most cities in sub-Sahara Africa, and where land ownership and housing are identified as some of the main drivers that affected urban settlement patterns in an emerging economy. Regrettably, most cities can be described as ‘slums’ as they are mostly associated with poverty, and the inability of the people to contribute positively to the city (Bell, 1995). Like most other African countries (Ghana, Kenya, Uganda, Zimbabwe), Nigeria experiences large-scale mismanagement and misappropriation of developmental funds due to the heightened level of corruption in dealing with infrastructural development projects which sometimes leads to abandonment or costly delays. Given that urban areas are often seen as safe havens that offer benefits such as economic growth-driven opportunities like employment, business, education, foreign investment, housing. Urban areas in Nigeria are greatly underdeveloped with a high percentage of people who are homeless, jobless, have no access to education and good health

service. People often migrate to urban areas in search of a better life, but the cities seem to have very little or nothing to offer in comparison to cities in the developed West.

The influx of people from rural areas to urban areas is increasing, and it is becoming more difficult for municipals to regulate the rate and level of urbanisation, and unable to cope with its adverse impacts. As a result, there is a lack of adequate provision within the urban areas, where unregulated development has swept through the central districts as most people want to live close to their workplaces or business areas. They want to live with family and friends living in the central districts because they cannot afford the cost of owning a place. This sort of clustered living patterns increases the population of a city, where soft and hard infrastructures are developing. Over time, the increasing population overwhelms the capacity of the existing infrastructures, causing them to be stretched beyond the size of the people they were initially meant for, which is the prevailing cause of urban decay. The fast pace of urbanisation has created concerns about the sustainability of existing and emerging cities.

Predominately, urban decay is caused by breakdowns in various decisive economic and non-economic factors. Some of these economic factors are macroeconomic such as market efficiency, business sophistication, while the non-economic factors are aspects such as government efficiency, institutions, infrastructure, public health, environmental health, primary education, higher education, technological readiness and innovation. Often, as experienced in most African cities, breakdowns in either or both factors impede development with government inefficiency having the most significant effects. Governance plays a fundamental role in urban development; and the same vein, bad governance impedes all level development and all aspects of infrastructural investments.

Primarily, malfunctions in infrastructural and institutional developments are mainly caused by bad governance, failed policies, lack and failure to adhere to regulations, lack of kk7will result in systematic failures that are at most times difficult to rectify within a short timeframe, they often require substantial reformations. Hence, such systematic failures and urban decay require stringent approaches to remedy the situation (Singh and Debnath, 2012). Urban decay is driven by numerous issues that are associated with economic poverty, environmental degradation, climate change, social exclusion and unregulated development.

It is crucial to point out that slums have been a misfit component of urban geography (Fenske, 2010), resulting from different demographics, demographical and political challenges of urban areas.

Infrastructural decay is one of the several outcomes of unprecedented population growth that occurs in urban areas, especially in developing countries. Thus, urban development emerged and was geared towards ratifying that the degree of damage caused in various cities around the globe. The number of people living in urban areas will increase significantly in developing countries, but the dilemma is, are African cities ready and able to cope with the immeasurable challenges of urban growth in sprawl and expansion and unprecedented population growth? Urban areas, especially in an emerging economy, are unable to cope with this rapid growth in population that causes high density and causing individuals to be providers of their basic amenities like water, electricity, security. Therefore, slums build up because of a lack of affordable housing, an acute shortage of water and electricity supply, inadequate sanitation, which result in a decline in public health. Slum area also contains a notable degree of pollution, infant mortality, sexual diseases, and high levels of traffic congestion, high rate of urban illiteracy, social deprivation, poverty, food scarcity, high crime rates and insecurities that have become the norm.

To survive such dreadful conditions, and improve their standard of living, slum dwellers rely on several destructive human activities to provide for their basic needs. They depend on illegal trading of natural resources such as crude oil, and utterly ignorant of their depletion and environmental impact. They may also engage in intensive and unsustainable fishing/farming and tend to drill boreholes for access to water. Fossil fuel is the primary source used to light and cool homes and often depend on wholly vandalised vehicles that emit carbon monoxide for transportation. Predominantly, people are compelled to rely on informal and self-developed infrastructure due to the failure of infrastructural development by the government. They, therefore, engage in unsustainable economic activities that emerge with hazardous by-products, which eventually end up as landfill. Land and water are extensively polluted due to inappropriate uses, as well as being used for sewage and refuse dumps. Many of these activities are significant contributors to climate change.

4.3.1. Urban Decay in Rivers State

The case study location is in Rivers State located in the southern part of Nigeria, situated in the delta basin, 40 miles from the Bonny River, which is connected to the Atlantic Ocean. Rivers states are one of the nine oil-producing states and one of the most significant oil-producing area in the oil-rich Niger Delta region. Rivers State is home to several multinational oil companies like Shell, Elf, Agip, Total, and Chevron. Her wealth of opportunity led to the influx of migrants from different rural areas and neighbouring states like Bayelsa State, Imo State, Abia State, Delta State, Cross Rivers and even beyond. Port Harcourt is the capital of the Rivers States, which was amongst one of the privileged states in the district to have infrastructural development during the colonial era. Port Harcourt city was well planned and structured to accommodate future development. However, rural deprivation, poverty, unemployment and insecurity have made room for mass rural-urban migration causing a rapid population growth in the urban area that has caused the decay of existing infrastructure. The project cut across eight local government areas consisting of Obio/Akpor, Ikwerre, Etche, Eleme, Ogu-Bolo, Oyigbo, Okirika and Port Harcourt. Port Harcourt is among several cities in Nigeria that have grown without understanding the specific influences on that growth and how much impact they have had on the city.

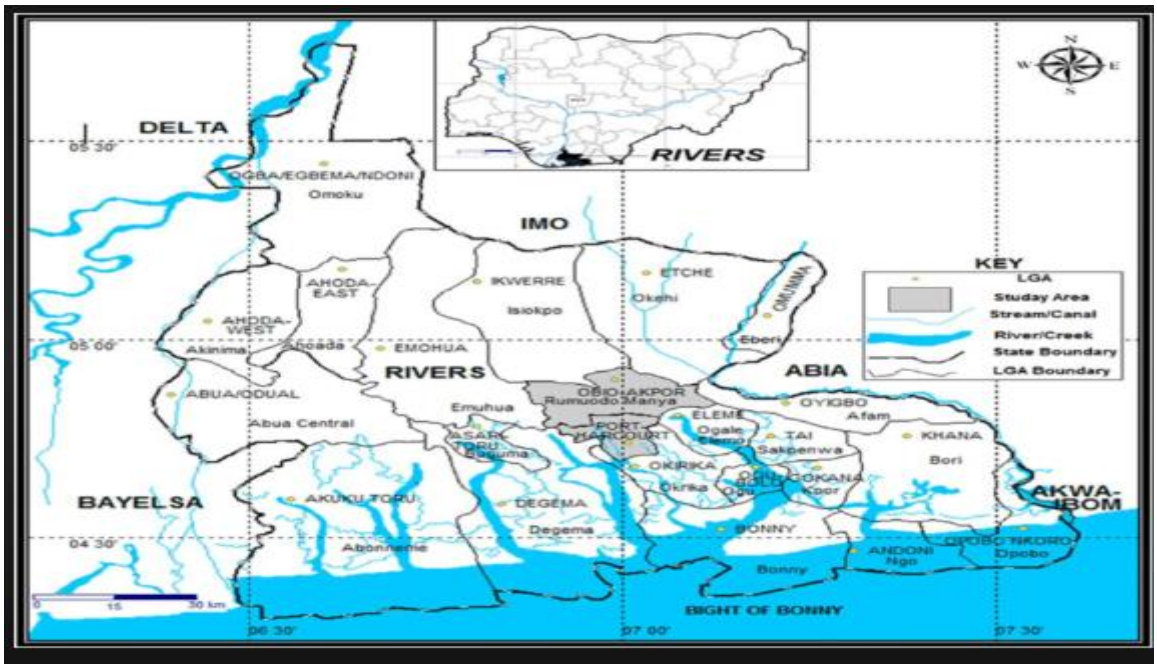

Figure 4.2 Map of Rivers State

Source: Google Map (2020)

4.3.2. Urban Decay in Port Harcourt

Rivers State was known as the Eastern Province of Nigeria, founded by the British in 1912. Chosen and named after her natural deep water on the coast of the Atlantic Ocean. After the independence in 1960, Rivers State was created in 1967, with 23 local government areas with a population size of approximately 5.5 million people. Most cities in Nigeria, including Port Harcourt, Rivers State had their developmental plan from the British system of town and country to manage the urban composition (Ede et al., 2011). The entire region with no exemption is now experiencing gross infrastructural decay, due to continuous rural-urban migration over the past three decades. An increased number of people are migrating into Port Harcourt, thereby overpopulating the city.

There has been uncontrollable migration from neighbouring states like Imo Stake and Abia State, and countries like the Niger Republic and Cameroon. Cities in Nigeria are overpopulation, and they associated with several multifaceted challenges such as urban decay, urban poverty and urban illiteracy. The growing population in urban areas have created avenues for massive infrastructural backlogs, crime, insecurity, traffic congestion, and other severe environmental issues like pollution and loss of aesthetical appeal (Chen et al., 2017).

In the last two decades of democratic dispensations in Nigeria, most urban areas have experienced the highest record of rural-urban migration. Brown (2017), there was a boom in urban politics that made most rural habitats to move to urban areas across the country. Some of the major cities in Nigeria experienced rapid population growth, especially Lagos, Abuja, Port Harcourt, Benin and Calabar, resulting in urban decay due to inadequate infrastructural provisions; especially infrastructures under public services. The unprecedented population growth has resulted in high density, inadequate housing, unemployment, traffic congestion (Brown and Chikagbum, 2017), poor sanitation and environmental degradation. Under such impoverish conditions, poor quality of life became an unavoidable element of those cities. It became necessary for those cities to conder renewal and redevelopment to combat further decays, destruction and deprivation within the city.

Port Harcourt is the capital of Rivers State, with a total area of approximately 1900sq.km with a population size of roughly 2 million people, which is still growing unprecedentedly (GPHCD, 2013). The primary occupation of the people of Rivers State is fishing and farming. The discovery of crude oil in the region was predominately the game-changer, as several multinational companies came into the city for oil exploration and exploitation. The presence of multinational oil companies significantly contributed to the influx of people from all over the world, and within a brief period, the city became overpopulated. The influx of people led to the continuous deterioration of existing infrastructure and unplanned urban expansion of the city into nearby rural areas, which further led to the decay of the urban area and conflict around the urban peripheries.

The area map below shows the old Port Harcourt City as planned with vertical and horizontal street layouts during the colonial era, and Figure 4.3 shows unregulated development following the collapse of urban infrastructure.

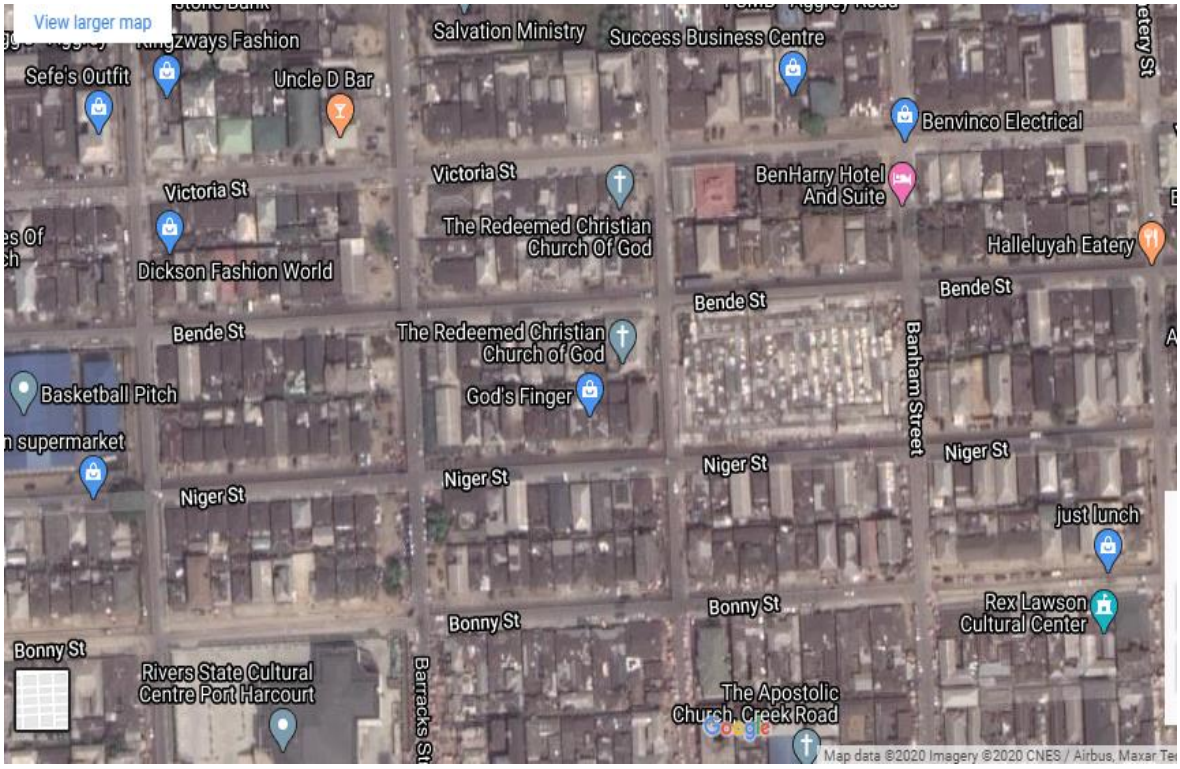

Figure 4.3 Regulated Development with vertical and horizontal street layouts

(Source: Google Map, 2020)

Figure 4.4 Unregulated Development with no linkages to urban infrastructure.

(Source: Google Map, 2020)

The rate at which the city of Port Harcourt fell into decay was rapid; Rivers State experienced a heightened level of institutional breakdown that reflected on how rapidly the city collapsed in its service orientation. While Port Harcourt city has gone through an immense physical transformation, the changes are significantly adverse as there is a total collapse in service delivery within the city. The city is challenged with both physical and institutional disintegration such that she has completely lost her past glory of being the 'Garden City of Nigeria'. The circumstances reflect a failed urban management regime (Mason et al., 2017), which exposes an urban area with multifaceted challenges including, a breakdown in political, social, economic, and environmental spheres of the metropolitan area.

Port Harcourt has experienced a long history of urban decay since the exit of the colonial rulers, and the city has deteriorated beyond imagination. Port Harcourt city was divided into two districts, Port Harcourt Township and the new layout. The region called the township was the European quarters where the British colonist planned and developed during the colonial era from 1912. It was well laid out with good road networks, designated residential and industrial areas, and a plan for future development towards the mangrove region of the state, to expand the city and align with the shoreline of the Atlantic Ocean thereby, taking full advance of the natural landscape of the region. Port Harcourt was booming economical being the focal point of the Nations' economy, the city has remarkably had her green days from the proceeds of the petroleum, but unfortunately did not anticipate the effects of unregulated development

The city enjoyed the advantage of being on the coastline of the Atlantic Ocean and being the second largest seaport in Nigeria, which interconnects with other neighbouring ports like Calabar seaport and Warri Wharf. The city was the "Garden City of Nigeria" designed and built by the British during the colonial era, with well structure residential bungalows, quarters for civil servants and commercial areas with a well-integrated network of infrastructures such as road networks, tap water, structured drainage systems, electricity, and strategic educational facilities for all. The discovery of crude oil in 1956 changed the trajectory of the region, and it attracted several multinational companies for oil exploration, which increased industrial activities. It stirred mass migration of people into the city and surrounding rural areas. The discovery of crude resulted in migration into the state; thus, increase population, which brought about colossal pressure on the existing infrastructures and contributing to urban decay.

Port Harcourt is a typical example of concentrate zone model of urban settlement, where the city is a central business district of the state, and the surrounding communities are a transitional zone, working-class zone, residential zone and commuter zone. Thus, the issue of overpopulation and all its associated challenges because the model is a misfit in a dynamic city like Port Harcourt. The dynamics of the city does not recognise the structured layers of a typical urban development model, in this case, the other layers are rural areas, and the communities have entirely lost their rural and cultural values.

Given these challenges, a sustainable urban development framework is concerned about developing a city with core infrastructures like housing, roads, education, waste management, energy and water projects that will be economically viable, socially inclusive and environmentally conservative. The goal is to have a workable methodology that will incorporate sustainability approaches and strategies in the project management processes and to address issues of stakeholders' exclusion. It is essential to adopt developmental approaches that are stakeholders inclusive through the life cycle of projects. Furthermore, the compact city development model would have been a more desirable approach to develop a city like Port Harcourt. The compact city policies advocate dense and proximate development, which will encourage development within the main city of Port Harcourt instead of intruding into rural areas. The model can also enable the establishment of key functional areas within the city.

The city's population was dispersed among several dry lands residential layout that sits on top of a huge amount of oil deposit, which most developed cities could have taken advantage and benefited. Practically, increasing population because of urbanisation have driven growth in most urban areas, cities in developed countries extend its carrying capacity along with the influx of people using different urban development strategies. Different dysfunctional elements are responsible for urban decay in Port Harcourt; in most cases, such dysfunctionality could emerge from the demographical, geographical, political and economic. On the other hand, it could also be a mix of different social, economic and environmental elements.

The urban decay in Port Harcourt could be categorised as one of those associated with a delay caused by a mix of different elements that will be discussed later in this chapter. The exploration of oil and gas is a major contributor that has brought about the enormous negative impact on the environment and social life of the city, and its residents. Nguyen et al. (2005) pointed out that the unfriendly ecological activities going on in the region have led to environmental degradation, which has resulted in the increased level of urban poverty (Linn, 2010). They further stated that a declining economic situation is an indicator of urban decay, which is driven by social exclusion, economic underdevelopment and environmental degradation. Port Harcourt happens to be one of such cities that so resource-rich, yet poor.

There is a recognisable level of social exclusion with a wide margin between the rich and poor as revenue generated from oil and gas exploration are not used to develop the host communities. Instead, host communities suffer from land, water and air pollution that eventually cause a devastating rate of hunger, severe health problems or even death. Chen et al. (2017), increasing air pollution is contributing to severe health challenges in the urban area. Al-Aomar (2019) posit that a lack of international competitiveness amongst industries creates a major breakdown in the structure of the national and international economy. Foreign investors are not only wary about the huge insecurity of the region, but they also mistrust in the economic worthiness of the people, given that there have been proven records of investment fraud concerning the Karibi Whyte Specialist Hospital.

The land policy of the region is not secured for investors to come in, especially with host communities' actions often disrupting work activities. Port Harcourt is the 10th largest producer of crude oil and the 6th largest exporter among the OPEC members, with such natural wealth such a city should be a world-class city regarding physical development. The viability of the upstream sector is greatly undermined in Port Harcourt, instead of being measured against its contribution to the nation's economy, the city suffers from multifaceted environmental, economic and social problems that emanated from the industrial activities going on within and around the city.

As asserted by Ibrahim et al. (2015) agricultural activities are significantly affected because of land pollution from acidic rain, water and oil spillage; communities engaged in farming cannot produce enough to meet their domestic need, nor can they export food produce. The riverine areas are not left of the problems as some rivers are so entirely damaged such that they cannot accommodate aquatic life. The level of air, noise and environment pollution is unspeakable. The depletion and shortage of resources have dramatically shut down other sources of economic strength, and the city depends solely on oil.

Other sectors that were in place during the colonial era have suffered an immense decline, and some completely shut down. For instance, the maritime and oil transportation that was managed by the British attracted huge international presence to the city. Today, the Onne Wharf is a docking wharf without any major economic activities, the railways have been converted to markets, the exportation of cash crops like cassava, palm oil, groundnut have

disappeared. The exploitation explains why the government relies on federal allocation to develop the city; the downside of relying on the federal allocation is that funds are being disbursed to politicians who have vested interest, alongside the corruption attributed to the region exacerbated by the recent plunge in the price of crude oil on the international market. The Ministry of petroleum resources regulates the petroleum industry, but political elects still interfere and retain close control over the activities of NNPC to a significant extent it can be estimated that more than 70% of the allocated funds stay within their private purse.

It is also very vital for a city to maintain a prominent level of institutionalisation. When an urban area is first established, policies that govern the soft and hard infrastructural development of the city are put in place; such policy is to ensure the city develops in a planned and controllable way. The policies on land and water use, their regulations on building forms and housing are maintained to ensure the provision of adequate, decent and affordable housing for the people; some policies govern the transport sector to reduce and control congestion, carbon emission, accident and noise pollution.

Rural to urban migration was not an anticipated issue when the British colonist planned, designed and developed the city of Port Harcourt. Rural-urban migration is a challenge that emerged with modernisation and globalisation; hence, the British did not consider it as an uncontrollable factor that can impede development. They adopted a push approach of development by making provision for the city to be developed into the creek and swampland. The provision made to expand the city to other regions was, however, jeopardised at the end of the colonial era. The 1960 independence emerged with a military government that again, triggered poverty in the region. Several people lived below $1 per day, and this increased the rural-urban migration. Uncontrollable rural to urban migration emerged, and unregulated development increased the number of slum settlement within the city of Port Harcourt. Urban poverty is driven by institutional neglect and systemic failures (Tabane et al., 2016). Lack of regulation and policy implementation in urban development resulted in most waterfronts being settlements for people with low income.

4.4. Factors contributing to urban decay in Port Harcourt

Several factors have contributed to the rapid decay of Port Harcourt city, and these factors range from natural degradation to lack of infrastructural maintenance caused by a failed system. As emphasised in a World Bank Report (2011) African cities are growing unprecedentedly, and the complexity of these cities may result in catastrophic impacts that may result in scarcity of basic amenities like clean water, food and housing.

4.4.1. Environmental degradation

Human beings are inextricably linked with the natural resources. Engagement in activities that do not promote sustainability may lead to the deterioration of a whole people and their livelihood. Salau (1993), "*Man and his environment are inseparable, and the relationships between them are very intimate and dynamic*". An increasing population means that if it is left unchecked, it may outstrip food production, particularly when the bulk of the population is dependent on it, which constitute most of the labour force. Availability of land is scarce, may not meet the needs of this population, and this could lead to an overuse land, and eventually cause further degradation (Wang and Dong, 2019).

Urbanism ought to productively improve the way people live. Farr (2008) explains the challenge in sustainable urbanism is "…how to engage the creative kinds of flight defining the social field as a whole; working to connect the micro with the macro, the public and the private, and the physical condition of the city with the flow of economic markets and political materiality". A significant increase in population leads to a corresponding increase in demand for food in the cities and a need to improve food security. The increased population lead to mass vegetation and forest clearing to be able to have land for farm use to match the demand with supply.

The need to reduce transportation costs, storage and preservation problems, leads to farmers moving closer to the urban areas. The upshot in peri-urban development led to an ecological problem since the food demand must be met with adequate supply, which made it impossible to achieve ecological equilibrium. Some of the species or organisms inhabiting these areas may have to relocate, and some even become extinct due to human interference. Agricultural activities do not just increase the need for horticulture, but also livestock and poultry. With

an increase in droppings, fertiliser use and pesticides, an increase in organic matter in water sources and supply follows and, in most cases, increases pollution of water bodies. Pollution poses a large environmental concern to aquatic life and ecosystems, leading to a rapid decrease in water supply from the affected water bodies.

The subsequent clearing of forests and change in environmental balance accumulates to facilitate weather changes, eventually leading to climate variations in the region of urbanisation. The issue of climate warming is mostly blamed on developed nations, but most urban areas are a contributing factor to the weather they experience. The hydrological cycles are also affected since forest cover acts as water regulators by inhibiting water run-off and soil erosion, thereby effectively helping to replenish groundwater. Unregulated building development can increase the chances of flooding and human displacement due to heavy rainfall increase. Depending on the topography of the land, the area might experience more cases of property loss, land degradation and even death (Elenwo, 2015),

Urban flooding is a concern, and Nigeria is not new to this as there have been recent occurrences of flooding including the Sokoto flood of 2010, Ibadan floods of 2011, and the Port Harcourt flood of 2015, 2016, 2017 and 2018. These examples are a clear indication that there is a high possibility that flood will threaten the coastal areas of the country, including the oil-rich regions if care is not taken to prevent it. Flooding occurrences are experienced in three forms in Nigeria: coastal flooding, river flooding and urban flooding. It has not been established that a single factor can be singled out as a causative but a medium; such as rainfall, can contribute solely and cause all the flooding occurrences. Specifically, in Port Harcourt, all three forms are experienced at different times in the year, and climate change has not made this any better. These are some of the issues sustainable urban development tends to address, as there will be considerations made for the region in the planning phase of the project, and for the type of materials to be used. There will be resilience for storm-water runoff, improved urban rainwater usage systems, and sustainable surface water drainage.

The Niger Delta region experiences flooding due to its geographical location and its plain-like characteristics. Port Harcourt is in this region, and some of the factors that have been attributed to increased flooding occurrences are topographical location, soil and vegetation

modification, increased rainfall, uncontrolled waste dumping, variations in land use, and unplanned urbanisation. For the problems in the area to be clearly understood, it is important to analyse some of the physical causatives of the flood in the city of Port Harcourt. Port Harcourt lies at the mouth of River Bonny in River State. It is about 25 km between this metropolis and the Atlantic Ocean and lies at an altitude of 12m above sea level. It lays within the Koppen tropical Rainy forest climatic zone of the Koppen classification, with average maximum temperatures of 34˚C and minimum of 21˚C. The causes of flooding according to a field study by Akukwe (2014) are attributed to climatic and hydrological extremes further intensified by topographical and human factors. For example, the flood in Enaka in 2015 was because of road development, and there was a feasibility study conducted before that road was created. Residence of Eneka suffered severe losses and blame the occurrence on lack of drainage system and the new road which is one of the Greater Port Harcourt City development project and other human factors that will be highlighted below:

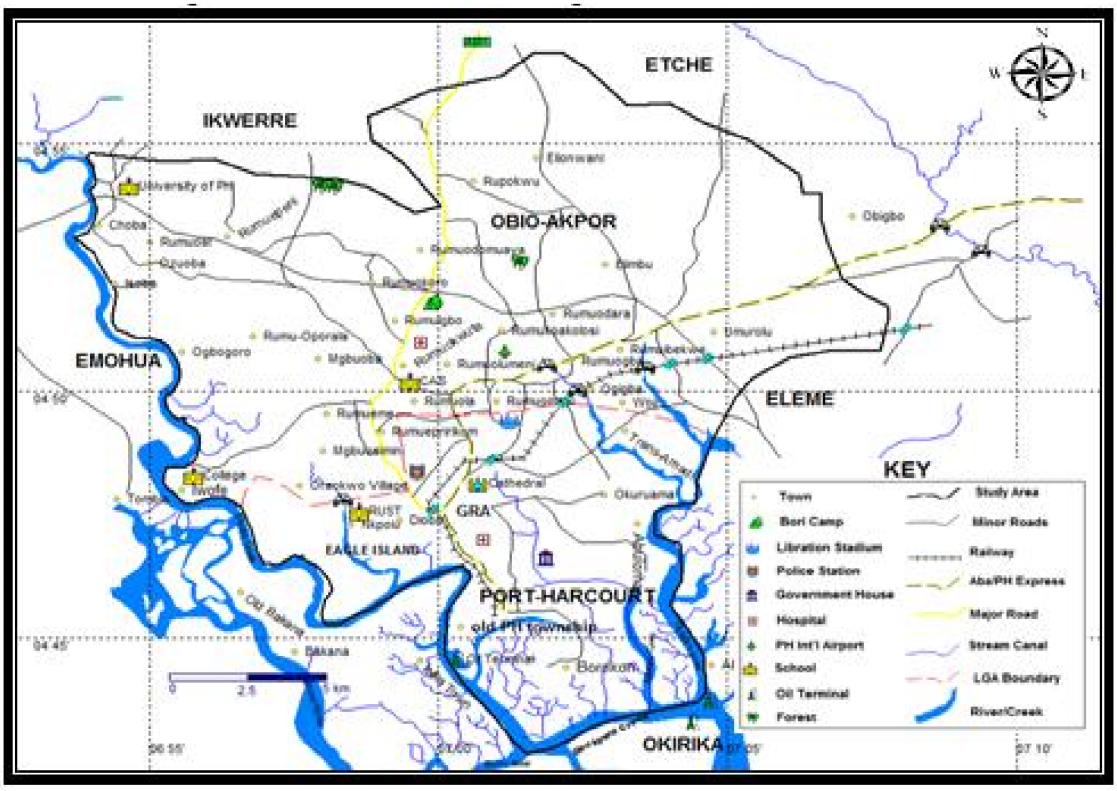

Figure 4.5 Flood Report in Port Harcourt

(Source: Google Earth, 2020)

4.4.2. Poorly Managed Drainage System

The lack of drainage facilities alongside roads and stormwater management facilities such as gutters, utility holes and curb inlets have not been constructed in this metropolitan area, and even though some are present, they do not have the capacity or construction design capability to contain the floodwaters. According to Abigo et al. (2014), drainage facilities when available are blocked by waste and debris, which increases whenever it rains and the consequences of that is flooding. The municipal or city maintenance of these drainage facilities are infrequent and have potentially caused exceeding rates of water flow to rivers and water bodies, thereby exceeding their natural capacity and contributing to river flooding, which is mostly experienced around the waterlogged areas of the city like Rumueprikom and Mghbuosimiri. The change in land use for purposes of human settlement, industrialisation and agricultural activity from its pre-urbanization purpose for ecological balance has also reduced the rate at which run-off accesses natural drains. Ecological imbalance leads to a build-up in floodwater, and due to lack of upgrade of some of the drainage facilities, higher flooding rates are experienced.

Table 4.1 Causes of flooding in Port Harcourt

Cause of flooding	**No. of Responses**	**Percentage (%)**	**Rank**
Absence of inadequate drainage facilities	102	15.74	1
Heavy rainfall	101	15.59	2
Blocked drainage systems	97	14.97	3
Impervious surfaces	93	14.35	4
Inappropriate town planning/uncontrolled urbanization	79	12.19	5
Poor drainage network	77	11.88	6
Flat terrain	46	7.10	7
Climate change	29	4.48	8
Unplanned development on flood plains	24	3.70	9
Total	**648**	**100.00**	

(Source: Akukwe, 2014)

The ranking performed in 2011 shows that the urbanisation and human activities are largely the major causes of flooding in this region. The issue of impervious surfaces is where urbanisation's effects of flooding are depicted in full view, as shown on the table uncontrolled urbanisation ranking at 5th from the above study. Uncontrolled urbanisation is regarded as a human-made causative of flooding in Port Harcourt. The replacement of natural drainages and channels with concrete jungles, roads without drainage and soil degradation, reducing run-off water percolation into underground water sources, results in increased flooding rates, primarily by flash floods as experienced in areas such as Mgbuoba Zone. Increased run-off to rivers and surface water reservoirs gives rise to river flooding, as is experienced in areas surrounding the Woji River in the Port Harcourt region.

4.4.3. Pollution from oil spillage

The Niger Delta, the region where Port Harcourt is located has been hit by a wave of environmental destruction and ecological degradation. Ecological degradation is directly associated with the presence of the precious commodity 'crude oil' in the region. Oil exploration and refinement are the major cause of some of the environmental issues; Rivers State has contributed to the highest degree of pollution over the past two decades. Being the fourth largest city in Nigeria due to substantial oil and gas deposits, problems of oil spills coupled with gas flaring are some of the major concerns, with 53% of the gas produced is flared, making Nigeria responsible for 28% gas flared in the world (Amosu et al., 2012). The effects of this result in acid rain, desertification, chronic health problems and the greenhouse effect.

Pollution from the oil sector is a major contributor to the rapid urban decay of Port Harcourt city. The diverse design of the environmental issue has plagued the metropolis, including poor refuse disposal and other waste management system. Rivers State Environmental Sanitation Authority (2006) the composition of waste generated included organic garbage at 41%, paper and plastic-based waste having 15% of the waste generated, construction waste, sludge and chemical waste holding a collective 9% of the waste produced (Jiboye, 2011). The deteriorated state of the city does not only pose a large threat to public health of the city's inhabitants but also affects the hospitality sector. Tourist would not like to visit a city where their health will be affected, or even to be greeted by mountains of garbage and waste commonly found along the major highways.

Noise pollution is also afflicting this region and other industry-based cities. Omubu-Pepple et al. (2009) investigated the effects of noise pollution in industries, and the Port Harcourt Airport could contribute to the induced hearing loss and other psychological effects. The quality of life in the urban area and Nigeria is slowly degrading as Nigerians spend huge sums of money in pollution-related health problems. According to Kozlowski and Yusof (2016) poor urban planning is a major contributor to aggravating climate change issues, this is further intensified by the lack of sustainable urban planning where garbage collection facilities are not factored in to cater for growing populations. There is no clear distinction between industry, commercial and residential areas, everywhere is a market, and this contributes to the rapid decay of the city.

4.4.4. Power Outages

A stable and sufficient power supply is vital to sustainable development in the 21st century (Odongo et al., 2017). Most industry-based cities require a substantial amount of electricity to sustain the economy, especially for manufacturing or mechanised farming (Adedokun and Osunpidan, 2010). Many people influxes into the cities in recent times also put strains on power suppliers. A constant power supply is vital to sustain growth and prevent degradation of urban areas; therefore, governments and the private sector need to come up with creative and sustainable electricity generation methods and establish an infrastructure that is structurally sound and can be upgraded if there is a need to increased demand.

Port Harcourt experiences shortages of electricity supply to its residents and the industries around it. It is in such a dire state that the power distribution company, Port Harcourt Electricity Distribution Company rations the little power supplied to its inhabitants. Most businesses and wealthy residents opt to connect to the grid of private power plants to sustain their businesses and lavish lifestyles, respectively. Inadequate power supply subsequently leads to an increase in prices of goods and services provided by these businesses to maintain profitability. The residents who cannot afford to purchase the expensive power supply are the most affected, staying in darkness or seek alternatives like burning wood or cotton to obtain light. Due to the unpredictable nature of Port Harcourt's electricity supply and the expensive alternative from private power suppliers, most businesses have relocated to other cities or shut down completely. The challenging situation in power supply has also resulted

in reduced investment in other areas of the economy, whereas the oil exploration industry suffers no losses.

The resident of the old Port Harcourt are mostly affected by several environmental issues as a result of poor electricity supply, and the residents are often expected to pay for services they did not get. Port Harcourt receives a miserly 200mW but has 803mW demand from its residents and surrounding businesses (Ede et al., 2011), leading to most of its population and industries located in this region generating their electricity. To further elucidate the perilous state of the electrical power supply, Port Harcourt International Airport is utterly reliant on diesel-powered generators to meet its electrical power demand, using approximately 132,000 litres monthly. In 2013, the Port Harcourt Refinery Company operated for only 82 days in the entire calendar year due to the electrical power deficit and pipeline vandalism from locals and cartels to feed their generators. Current projections suggest that by 2020 Port Harcourt's metropolis may require 1.93GW of electrical power to meet demands for its city's residents and businesses (Ede et al., 2011). Using a sample population of 300 consisting of the resident, industrialists and commercial business owners with a 30-year residence or business operation respectively, Amadi (2015) discovered the following complications in the electrical supply in Port Harcourt:

4.4.4.1. Weak and broken transmission and distribution networks

Weak and old electrical network are the major causes of frequent power outages in Nigeria and Port Harcourt, particularly. Power system networks nowadays operate within their stability limits due to increasing load demand, industrialisation, and an environmental and economic factor which makes the construction of new transmission lines and generating stations somewhat difficult. Consequently, many of the networks have become weak, heavily loaded and prone to voltage instability.

4.4.4.2. Inadequate power generation capacity

The total installed capacity of the generating plants is above 5000 MW, but the available capacity is about 4000 MW and coupled with the fact that a considerable number of these power stations are 20 years old, the average daily power generation is below 2700 MW. The result is that the present power demand in Nigeria is far above the current generating capacity; thus, power outages occur frequently.

4.4.4.3. Lack of good maintenance culture

Nigeria has a poor record of the maintenance program of existing electrical facilities. Most transmission lines, distribution transformers and equipment, are fragile, having outlived their usefulness. Still, these are neither discarded, upgraded, nor maintained despite being in much deplorable condition due to poor maintenance culture. Lack of maintenance makes equipment to perform below optimal levels and contribute to power outages.

4.4.4.4. Vandalism

There have been reports of cases of vandalism of electricity infrastructure across Nigeria. Though these occur mostly in rural areas like Port Harcourt, the phenomenon poses great dangers to the efforts of government and the power industry to achieve efficient electricity supply to the populace. There have also been reported cases of some of these vandals have been electrocuted while engaged in their nefarious acts.

4.4.4.5. Wasteful use of electricity

Most Nigerians are ignorant of the need for energy conservation. In spite, of the shortage of electrical energy, most consumers leave their electrical supplies on for long hours even, while away from their homes. The lack of awareness makes them leave their home and office appliances on day and night. Unawareness on energy conservation leads to wastage of scarce electrical energy and hinders those in dire need of the energy from accessing it because they cannot afford the tariff.

4.4.4.6. Corruption

Sometimes, utility staff deliberately discourage electricity consumers from settling bills officially, preferring rather adjust energy meter readings in favour of such customers in exchange for some fees usually far less than what the consumer would have otherwise paid officially as a bill to the utility provider. Such dubious acts impact negatively on the finances of the electricity distribution company (NEPA) and make it more difficult for the company to meet its statutory obligation of efficient service delivery due to its shortage of funds. All these are the dynamic mix of complication that is caused by urbanisation in Nigeria.

The influx of people from rural areas into the city of Port Harcourt along with the rapid regulated development and lack of appropriate urban planning is a concoction for the current state of the city. Lack of planning for electrical power demand results in depleted reserves, poor supply to the residents, industry and businesses it serves. The electricity regulatory body has failed to adapt to these changes in terms of education to the residents on efficient power usage, monitoring and enforcing the power supply payment, maintenance of the power supply equipment and infrastructure.

Fundamentally, there has not been any effort made to find alternatives sources of energy to cope with demand power supply, such as a power pool program to share electrical energy sources among neighbouring cities or countries (Amadi, 2015). These problems seem to be exacerbated by the ageing infrastructure resulting in overloading of transformers to cater to the limited infrastructure. Overloading transformers results in low voltages that are near inadequate, even for domestic use. The lack of government support and light take on the gravity of this issue is also quite surprising. For instance, there are two recently commissioned power plants, Geregu and Omotosho that do not have a gas supply. Thus, they cannot operate and add much-needed electricity resources to the grid (Akinbulire and Oluseyi, 2012).

Statistics indicate that 60 million Nigerians, almost half of the population, spend 1.6 trillion US dollars amounting to approximately 8 billion Naira on generators annually, excluding 93% of Nigerian firms currently dependent on privately owned generators for electricity supply (Amadi, 2015). This statistic is just an illustration of how urban planning is vital to the daily operation of an urban area, whether residential, industrial or commercial. For a city that is highly dependent on industries, and getting most of its revenue from them, electricity is even a more critical requirement, but this is highly neglected as a result to lack of sustainable considerations in urban planning (Kozlowski and Yusof, 2016). However, it is not considered by urban development planners and designers, and the norm is every household caters to their energy and water supply. The question then arises, what happened to the old infrastructures? Why couldn't they be restored and reused?

The oil exploration and refining seem to be the only industry keeping this city from imploding; without this, the city could not have survived. The lack of adequate electrical supply may also, have a significant effect on other sectors such as the commercial,

hospitality/ tourism and health. These sectors depend on this vital resource, and they tend to be less viable and struggle to maintain profitability or even break-even. Lack of adequate electrical supply, in turn, leads to a downturn in the economic prospects and inhabitable conditions of this town should the oil supplies in the fields dwindle. Some of the proposals suggested by Amadi (2015) to the limitations stated above include:

- Compulsory inspection and planned maintenance programs for the infrastructure.
- The need for the government to urgently upgrade the power transmission lines and distribution infrastructures.
- Set Legislation to prosecute people who vandalise electrical infrastructure and those establishing illegal connections.
- Alternative energy sources to reduce overdependence on fossil fuel produced electricity.
- Pre-paid meters were established to address the issue of consumers exploitation, curb mismanagement, and power wastage.

4.4.4.7. Transportation deficiencies

According to Feng et al. (2010), transportation plays a significant role in the development of an urban area. As mentioned earlier, the city of Port Harcourt is an advantage by having a railway connection that served different purposes and connected to various parts of the city and country. Good transport connectivity leads to urban sprawl which is "the rapid expansion of metropolitan areas with a complex pattern of land use, transportation, and social and economic development" (Opp and Osgood, 2013).

They also pointed out the relationship between urban sprawl and its influence on transportation. First, transportation provides free movement that attracts people to the urban area as there seems that the place offers more opportunities. As automobile dependence increases, so do social and economic pathologies that face urban areas. These include air pollution, increased accidents, increased road and construction needs and decreasing quality of life.

The influx of people in the urban region must be provided for, and this can only be done by converting the farmland in the periphery to residential or commercial development to meet

the housing needs of the people. Urban sprawl eventually leads to social-economic segregation as multiple political and social jurisdictions emerge. These segregate people regarding social, economic and racial groups. Thus, there will be those areas popularly known for the poor and those for the rich. Road networks are an essential contribution to the quality of life. Therefore, when a given urban area is coming up, the government will emphasise on ensuring that there is a well-connected road network to facilitate the different economic activities that take place.

Despite the enormous development that has taken place in the public sector, the daily movement of people into the city has become more complex and challenging for the government to cope with such unprecedented infrastructural needs. For example, in Port Harcourt, traffic snarls can start from the beginning of the day, and the congestion can last until evenings (Okolue, 2005). He further explained that traffic snarl-ups, and it results in inactivity that accumulates to a waste of time and under productiveness. He further argues, "Assuming the trend continues; there may be times when the available traffic routes will be completely saturated and movement almost impossible" (Okolue, 2005). Failure to put traffic management systems in place is a threat to the life and livelihood of these people, particularly with a doubling population.

Increasing demand for transport means that road capacity becomes outstripped. The traffic congestion in Port Harcourt has slowed down the socio-economic activities. Sometimes, the traffic snarl-ups may leave a road impassable. In addition to this, the demand for public transport is often quite high, and the provision of this mode of transport does not meet the demand. As a result, the urban residents in Port Harcourt must contend with high prices even if they are travelling within the city. Within the city, the conflict between people and vehicles results due to the vehicular explosion. The road system is unplanned, and these areas of the interface are not effectively managed, which results in inefficiency in the overall system. In Port Harcourt, most of the roads are single two-lane carriage. The design of the roads was in such a way that there was no room for expansion that could be left. Again, many people are moving into the outskirts of the city. The mass movement of people into outskirts of the city fosters the development of another 'social class' that creates distinctions that widen the gap between the rich and poor, and the consequence is urban degradation.

4.4.4.8. Poverty and illiteracy

Cities and urban area are designed to improve the quality of life by providing access to services. Which include education, health, housing and safety (Perrin et al., 2014), offering development regarding technology and socio-economic progress regarding increased job and employment opportunities, and accessibility to a market for potential entrepreneurs and business owners. Accessibility to a market for potential entrepreneurs is exemplified by the rural-to-urban migration in search of a better quality of life. Port Harcourt experienced this due to the massive oil reserves found in this region. Once distant villages on the outskirts of the city are now considered part of the metropolis, which contributes to urban expansion. It has an average annual growth rate of 5.2% and hosts most multi-national oil exploration and refining companies, leading to its attractive nature regarding relocation from rural areas. Urban infrastructure and services have not been able to sustain this influx of people, leading to an urban poverty trend that reduces the quality of lives of residents in developing countries (Linn, 2010).

Port Harcourt is divided into four residential strata: planned areas, informal settlement, Port Harcourt municipality and indigenous enclaves. The differences in these areas are informal water supply, sanitation and water collection, planning, population densities and income, with the informal settlements on the negative spectra of these results. The municipality region and planned areas do not have the worst of it but still, have poor standards compared to cities such as Lagos. Overcrowding is one of the significant problems the poor residents of Port Harcourt experience since most of the informal dwellings expand laterally while the municipal and planned regions expand vertically.

In a report by Amnesty International (2010) slums are rapidly developing due to limitations of land and general lack of planning. There are a lot of slum dwellings on reclaimed land around several waterfronts in Port Harcourt. The poverty situation in Nigeria has led to an increase in prostitution activity in Port Harcourt. Emene (2012) as cited in Poroma et al. (2014, p.122) captured the state of this trade in a statement: "*In Port Harcourt, the nation's garden city, thousands of Nigerian girls and women like other nationals live in brothels doing business with their body; several others who may not live in brothels parade the streets in front of major hotels waiting to be picked up by potential customers or men".*

The poverty levels in this region can be attributed to the accumulation of wealth to the upper classes of people who had the opportunity to profit from the industry within their communities. Port Harcourt is also characterised by very few job opportunities and a high cost of living. The rural economy collapsed as a result of oil spills, oil-related pollution and gas flaring in most communities interfere with people's livelihood in agriculture and fishing. The collapse of the rural economy also explains what lead to rural-urban migration of the indigenous people of several communities into urban areas to seek greener pastures and alternative things to do.

4.5.Chapter Summary

Urban areas in Nigeria are highly deteriorated because of infrastructural underdevelopment. Several factors are responsible for such level of underdevelopment, and the effects of climate change are amongst the prevailing challenges of urban development. For Port Harcourt, social exclusion, insecurity, land policy, and abandonment of existing infrastructure and excessive exploration are some of the factors responsible for the decay of the urban area. Also, the increasing emergence of slum developments is a recognisable factor that has contributed to urban decay in and around cities in Nigeria. Furthermore, the resultant effects of climate change like flooding, land and water pollution is another contributor of unsustainable urban development. The issues identified in this chapter explain the specific challenges that need to be considered in developing sustainable urban renewal plan for the Greater Port Harcourt City Development. This next chapter covers the methodological approaches adopted in conducting this investigation that is aimed are recognising the underlying issues as applicable in the case study project.

CHAPTER 5: RESEARCH METHODOLOGY

5.1. Introduction

This chapter explains the procedure adopted for this research study, providing an explicit explanation of how the study was conducted from a philosophical stance to drawing up conclusions. This chapter presents the philosophy of the research, and the systematic approaches employed to collate both primary and secondary data and how they were analysed, thus providing answers to the research questions and how the contribution to knowledge emerged.

The study adopted a clear research pathway: an exploratory qualitative research process through an inductive approach. Primary data was gathered from 52 semi-structured interviews with different categories of stakeholders, as highlighted in table 5.2. The resulting data set was broad in terms of participant type but was also deep enough to reach a level of saturation. Observation notes from non-participant observation of project sites gave rise to data the operational aspects of the projects that were not available from other sources, and finally, the primary documentation of the project provided an overview of the longitudinal elements of the project that were not available from elsewhere. A thematic analysis method was utilised to analyse the data. These three data set contributed to a variety of perspectives on the planning, operation and impact of the current project. The interpretivist approach enabled consistency across the analysis of all data set.

Thus, provided answers to the below-listed research questions:

- What are the factors hindering the sustainable urban development of the Greater Port Harcourt City Development project?
- What are the sustainability policies, practices and indicators of the Greater Port Harcourt City Development project? If any, how are they measured and adhered to? If none, how can sustainability principles and initiatives be integrated and implemented in the Greater Port Harcourt City Development project?
- What role can project management and other interdisciplinary practitioners' play in incorporating sustainability into the delivery of the Greater Port Harcourt City Development project?

This study attempts to fundamentally understand why social actors (stakeholders) behave and act in an unsustainable manner. Profoundly, it is only after establishing these factors; anyone can propose mitigating strategies, frameworks, and best practices to foster sustainable urban development projects in Nigeria. This study adopted an exploratory approach with qualitative inductive methods accounting of how the research study was logically conducted within the designated research design. The methodology took a logical sequence for providing answers to the research questions, which explicitly sought to identify the factors hindering the sustainable urban development of the projects, examine the identified factors and developed an adaptable framework for policymakers and practitioners.

5.2. The Philosophy of the Research

According to Gray (2014), academic research is guided by a research paradigm, and the different philosophical stance relies on various assumptions and frameworks. It is essential to understand the assumptions and issues that underpin the research study (Saunders et al., 2012). As emphasised by Yin (2013) failure to acknowledge the philosophical issues around the research can influence the outcome of the study. There are three components of the research paradigm: epistemology, ontology and methodology (Tronvoll et al., 2011). According to Saunders et al. (2007), the research paradigm is a way of examining beliefs, values or perceptions about reality. According to Neuman (2011), every research is guided by a paradigm, and their assumptions and principles define the researcher's methodological choices.

The theoretical perspective of this study is shaped by interpretivism, guided by phenomenology, as the study attempts to understand social reality (Gray, 2014). Kelemen and Rumens (2012) also pointed out that interpretivism paradigm takes social issues like management, political and social issues into perspective. In social science research, the reality is not static; hence, it is entirely unacceptable not to factor in the various variable that influences human behaviour within our natural setting (Gray, 2014). The Greater Port Harcourt City Development project involves social interactions across eight different local authorities, and these communities are made up of diverse individuals that have a unique set of beliefs and opinions. As highlighted by Easterby-Smith et al. (2018), understanding the philosophical perspective of the research is vital to the research process as it makes clear

how the research data will be collated, interpreted and ascertain the workability and limitation of the approach.

This study falls under the social constructivism framework, which posits that human development is actively situated within their natural environment, and knowledge is gained through social interactions (Gray, 2014). This study guided by the interpretivism philosophical perspective that shapes the assumptions and framework of qualitative research (Zikmund, 2013). In this study, the acceptable knowledge is that sustainable urban development can be achieved through the collective effort of stakeholders, and when they start seeing the positive change, they will embrace it and learn from it to improve the quality of their lives. The understanding of their perception will provide an informed subjective view that can be associated with why things are done the way it is currently done. In other words, people perceive and see things from different perspectives, and how they interpret or construct the meaning is based on the rationale of their subjective views (Neuman, 2011).

The methodological choices of this study are guided by the principles that underpin qualitative research, which is gear towards including social phenomenon to research. Also, Saunders et al. (2012) emphasise that the philosophical assumptions adopted are shaped by the researcher's view of the world and an acceptable process of acquiring knowledge. It also determines the implications of the research from a philosophical standpoint. Based on this, it can be argued that the lack of awareness and ignorance about the consequences of 'unsustainable urban development' are some of the factors responsible for the chains of unsustainable activities in Port Harcourt.

According to Saunders et al. (2012), research is a way of increasing knowledge by finding out things systematically and making sound conclusions. There are two primary reasons for conducting research; first, to fill the knowledge gap(s), and secondly, to solve a problem(s). Therefore, this study was aimed at filling a knowledge gap in sustainable urban development in an African context; an intrinsic measure was taken to identify that there is lack of knowledge what sustainability is, and how it can be applied to achieve sustainable development in the development of African cities. Following the identification of the gap(s), the concept 'sustainable urban development' was suggested as a corrective strategy for the Greater Port Harcourt City Development to embed knowledge based on the underpinning phenomenon.

Predominately, social science researchers believe that the world is socially constructed; hence, opinions are subjective. Subjective views are often a mechanism that drives change in the society. Therefore, the question is not only whether opinions are subjective, but if there is an objective reality out there that is independent of these opinions and perspectives. If the activities and actions of social actors are influenced by their location, culture, belief, religion, ethnicity, lifestyle, social class, then it is important to subjectively address those social elements that influence their activities and see if there will be a momentous change in how they behave. This study is designed to follow the research paradigm below in 5.1. The study followed the pathway: Ontology - (Subjective); Epistemology - (Interpretivist); Methodology - (Case study-qualitative); Techniques - (interview, observation); Data Analysis - (Thematic).

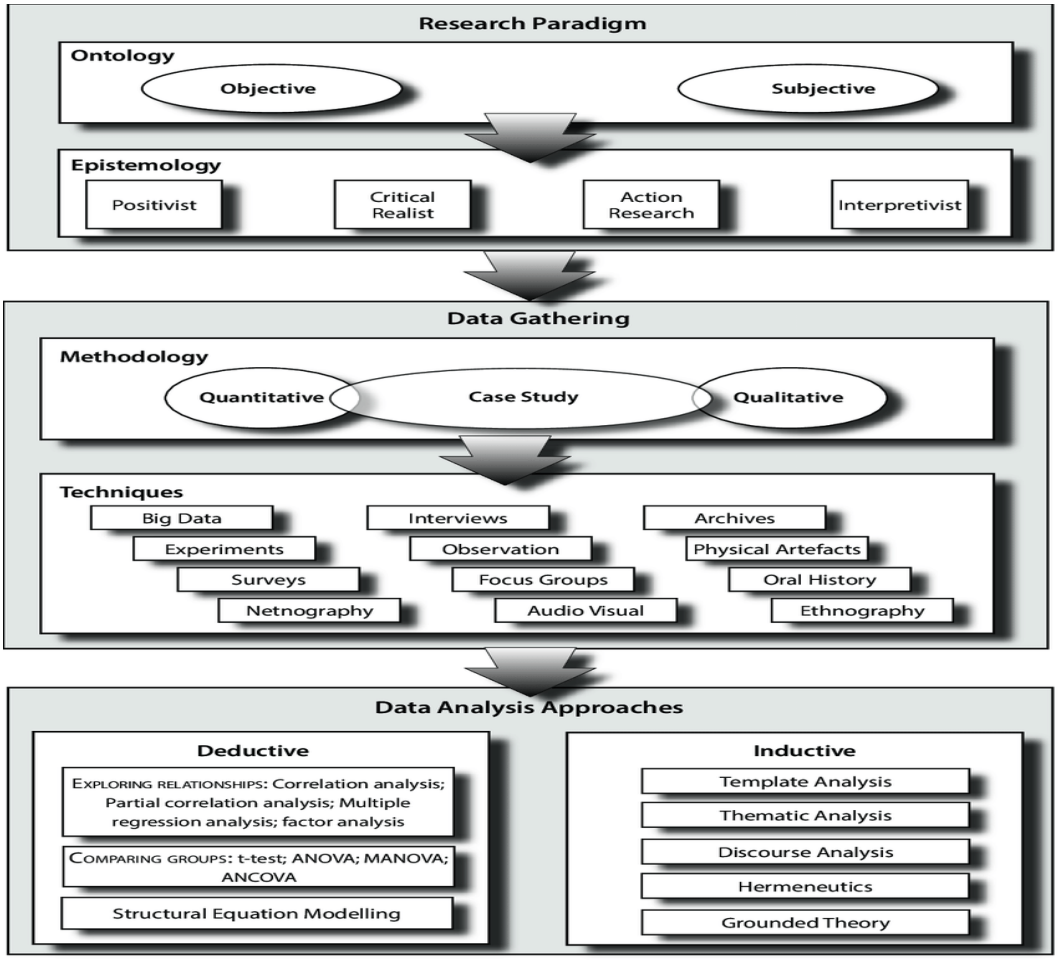

Figure 5 1: Research Paradigm

(Source: O'Gorman and Maclntosh, 2015)

5.3. Research Design

According to Crookes and Davies (2007) research design is often an iterative process, which provides a framework that enables a logical structure to carry out robust investigations, and it describes the 'how', 'when', 'where' and "what" data are to be collected and analysed. This study attempts to provide answers to 'How can urban development be made sustainable?', and 'what are the factors hindering the sustainable urban development of the Greater Port Harcourt City Development project? Generally, research design determines what kind of research methodology to employ in an investigation. It is an all-encompassing plan of how an investigation is to be carried out. This research was conducted in three pivotal phases.

5.4. The Research Design Structure

Phase one began with an extensive review of relevant literature on core concepts like industrialisation, colonisation, urbanisation, globalisation modernisation, sustainable urban development and project management. The literature review indicated a gap in knowledge in the literature of sustainable urban development in Africa cities. There are several works of literature on sustainable urban development in European and American cities, but not in African cities. The research conducted in those cities show social acceptance to the urban development plan, but it is otherwise in the towns in Africa. This gives a clear indication that the concept has not been expressly understood; hence it cannot be effectively implemented. There was no evidence of literature that has established why African cities have not undergone sustainable urban development process. The review was aimed at revealing the main challenges and peculiarities like mind-set, political and economic instability, culture, and other developmental issues faced by developers in Africa in general and Nigeria in particular.

Phase two of the study deals with the design of the methods used in collating the research data of the case project. This phase was the most important part of the study as it provided an in-depth understanding of the stakeholders in their natural environment, which is 'socially constructed environment'. It was a unique encounter to understand how people create such a robust social setting amidst the diversity of language, culture, political divide, traditional belief and social class. The interview guide used is shown in Appendix 1, 2 and 3. The field

study involved primary data collection through a face to face interviews that utilise semi-structured interview, and non-participant observation, and the secondary data was collected through document analysis of project reports, project mandate and a mid-term report. The total number of stakeholders interviewed were 52: 6 top managers from the Greater Port Harcourt City Development Agency, six project managers from selected contracting companies involved in the project, and five community group leaders from each of the eight communities involved in the project. The entire data gathering process was a mixture of face-to-face interviews, observation and document analysis, and they all contributed uniquely to the findings of this research.

Phase three, which is the final phase, analysed the primary data gathered. The primary data were analysed using thematic analysis and supported with NVivo 10, however, the NVivo results were discarded because it wasn't generating the true reflection of the context of the data, and hence, the data were manually coded. The themes were manually categorised accordingly to give an accurate representation of the study; the interview transcripts provided a rich context of the facts gathered in phase two. The observation notes also provided affirmation of what was physically seen on the project site visited and what was collected from the interview sessions.

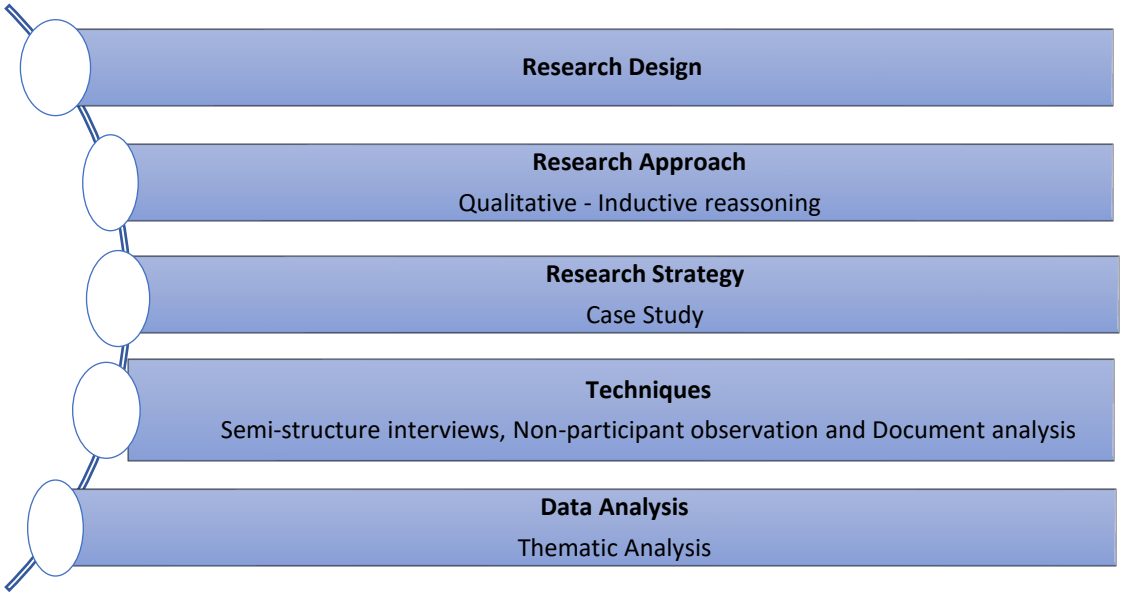

Figure 5.2: The Research Design Structure

(Source: Author)

5.5. Research Process

There are different types of research exploratory and experimental. However, this study adopts an exploratory, which seeks to gain in-depth insight or knowledge about the phenomenon being studied (Saunders et al., 2012). Experimental research often referred to as 'truth-seeking', and it adopts statistical, mathematical or quantitative research design. While exploratory study often seeks to understand natural or social occurrences that are widely described as 'opinion seeking', and they tend to adopt qualitative or mixed methods data collection techniques as they make conscious efforts to understand the reality or phenomenon from the perspectives of different people. This study is exploratory in nature as it seeks to provide an in-depth understanding of why urban development projects in developing countries are not sustainable. The interaction with stakeholders within their natural environment will provide insight into why the concept of sustainable development has not being integrated into how urban development projects are initiated and designed and managed in Nigeria.

5.6. Research Approach

There are different types of research approaches qualitative (inductive), quantitative (deductive), and pragmatic (inductive and deductive). This study adopts a qualitative research approach, which is mainly inductive reasoning. Inductive reasoning usually occurs where there is a lack of knowledge and a need to generate theory. The procedure was purposefully used to explore if there is existing knowledge about the concept of "sustainable urban development" from the information gathered from the interviews and observations made. This study utilises an inductive approach to research; thus, semi-structured interviews was adopted to enable the researcher to have informed knowledge of what is going on with the case study project and to provide a rich insight of opinions, which allows a better understanding of the problem as suggested by Saunders et al. (2012).

The inductive approach was employed to provide in-depth knowledge of the concept of sustainable urban development by gathering the opinions of multi-level stakeholders of the study project, and the shreds of evidence from the investigation can be supported and generalised. Again, the data collected is used to explore a phenomenon, and the themes that emerged can be used to create a conceptual framework (Gray, 2014). The entire data

collection process of this research was structured to gather as much evidence as possible from the stakeholders of the Greater Port Harcourt City Development project to generate 'new knowledge'.

5.7. Research Strategy

The research strategy in Saunders et al.'s (2011) opinion is a plan of how the researcher intends to conduct the research and the proposed ways of answering the research questions. Bryman (2012) maintains that research strategy is a systematic structure that guides a researcher on how a research project will be conducted. The research strategy adopted in this study stipulated what method and techniques should be used in conducting the research. There are several research strategies: experiments, survey, case study, grounded theory, action research and participative enquiry (Saunders, 2007), these strategies have their unique data collection methods and techniques. Typically, qualitative research adopts a case study strategy for several tangible reasons.

The case study approach is the most popularly used research strategy in qualitative, social science research (Creswell, 2007). The case study is one of the most appropriate qualitative research tools for conducting physical and social science research that involves empirical enquiry. The strategy advocates a "human-centric approach", it was adopted because stakeholders' experience solely determines the investigation. It was also chosen to understand the stakeholders' point of view concerning the situation under study. The research is conducted based on a single exploratory case study from the Greater Port Harcourt City Development project. The essence of the case study is to critically understand the problems with the Greater Port Harcourt City Development project and determine why and where the issues emerged. Again, an in-depth understanding of the case study will establish the complexity of the problem.

The strategy offered a sense of realism because the study was conducted in a real-life setting and heuristic; that is, they are self-guided in identifying themes, understanding and drawing up conclusions about specific situations. Fundamentally, the strategy was adopted due to the nature of the study, which social constructive. The approach was adopted to understand the different social factors that are hindering sustainability in the Greater Port Harcourt City Development. Sustainability issues are mostly associated with social problems, and predominately, they are opinion driven.

5.8. Data Collection Techniques

There are diverse ways to gather evidence in qualitative research. This study adopted semi-structured interviews, non- participant observations and document analysis (Gill and Johnson, 1997). According to Saunders et al. (2011), the data collection methods adopted in a study enables a better understanding of conducting the research; the researcher, therefore, employed these data collection techniques to unravel the developing themes and patterns that emerged from the transcripts. In a study of this nature, the research needs to be proactive because the most crucial aspect of the study was gaining access. The research was dynamic by first establishing contacts with the case study company to understand the specifics of the underlying issues with the Greater Port Harcourt City Development project, then, further established contact with initial research participant and conducted a pilot study to test the methodology. The qualitative data collection techniques adopted provided a rich context of information that couldn't have been possible with a quantitative data collection technique.

5.8.1. Semi-Structured Interviews

Interviews is a data collection method used to get an in-depth understanding of an interviewee perspective (Given, 2006), it is often used to get research participants opinion about a subject matter and the phenomenon being studied is a social issue; hence, an opinion seeking methodology of inquiry was the most appropriate. According to Whittaker and Williamson (2011), interviews are more suitable for research that is centric on knowledge, beliefs and values.

Utilising interviews was the fascinating aspect of this study as it was very dynamic, interview sessions were pre-booked with the stakeholders, at an agreed date; agreeing on the time and venue, and length of each session, which lasted from 45 minutes to 1 hour. Stakeholders were grouped into three categories and asked a different set of questions using the interview guide for each participant. The interview guide was to enable the researcher to stir the conservation towards various relevant aspects to be addressed, and where need be probing the stakeholders to give more insight about a topic. Stakeholders were able to express how they felt, and how they perceive the various projects both the on-going one and the abandoned ones. In this study, the stakeholders of the Greater Port City Development are people with strong traditional beliefs, cultural values and are unique in their demographic setting; thus, it was essential to take all these variables into considerations. In this study,

critical variables like stakeholders' level of knowledge, ethnicity, culture and traditional belief systems were taken into account during the interview sessions as they are strong determinants that shape the stakeholder's behaviour. It was increasingly being recognised that stakeholders are receptive when their opinions and views are not contested upon, but instead listened to, and acknowledged.

According to Mauel-Kaar (2007), interviews are in three different forms: structured, unstructured and semi-structured. This study adopted a semi-structured interview to get the opinions and views of a selected group of stakeholders of the Greater Port Harcourt City Development project. As postulated the use of semi-structured interviews allows the researcher to elaborate on in-depth matters, creating enough avenue for inquiry and probing the participant's last utterances and it also created an opportunity to initiate a new theme of discussion (Fisher, 2007). This study employed the use of a semi-structured interview because it is very flexible, and thereby, creating a structure that facilitates data analysis. Semi-structured interviews were conducted with different stakeholders' group (project sponsor, managers and community members) through open-ended questions to allow an elaborate conversation and assisted the study in obtaining valuable and relevant information about the on-going projects in their communities.

The use of semi-structured interviews created a platform for discussions that allowed the researcher to probe different areas of interest to get answers to research questions. That technique was utilised in its strength in diverse ways, particularly, the face-to-face conversation enabled stakeholders to discuss sensitive issues without committing themselves in writing and expressed their areas of concerns through body language. In the same light, Saunders (2007) maintains that the interviewer is likely to get more information due to the informal nature of a semi-structured interview, for example, because of the flexible nature of the technique, friends and families of the stakeholders, informally joined in some conversations and these kinds of information added to the richness of the data gathered.

Furthermore, the interviews were conducted at the preferred time and venue of the stakeholders; some were able to show pictorial evidence of their experience and encounter. Nevertheless, authors like Johnson et al. (2007) argues that semi-structured interviews are difficult to analyse because their findings cannot be easily generalised. To mitigate the

challenge of saturation of information, the study adopted the use of non-participant observation to juxtapose the participants' opinions from the interviews conducted.

5.8.2. Non-Participant Observation

According to Bryman (2012), observation is a systematic and unique method used to gather supporting evidence in qualitative research. Saunders et al. (2009) identified two categories of observations; participant and non-participant observations (Bryman, 2008). The non-participant observation was undertaken in this study included watching, listening, assessing events in line with the investigation, unlike the participant observation that would have required the researcher to be involved in the event to carry out the actual measurement or the observation process (Fox-Wolfgramm, 1997).

Adopting this technique provided valuable insight into the current issues of the case study project. Firstly, all relevant authorises were informed on the dates and times of the observation. Access to the project sites was granted and approved by the different project coordinators to avoid being treated like an intruder. The observation took ten (10) working days: 2 days each across five (5) various project sites, between the hours of 8 am-5 pm. The non-participant observation was geared to understand the workflow at the different project sites and how the stakeholders perceive the on-going projects. It was aimed at observing the activities of project managers and other practitioners. The time spent at each project site provided the researcher with valuable information and created an avenue for the researcher to understand the views of the stakeholders while in their natural settings. The non-participant observation was conducted at some of the Greater Port Harcourt City Development project sites, going around different location revealed numerous discrepancies in what was said by the project sponsors and what was seen in some of the project documents, which were most of the complaints the community stakeholders mentioned in the interview sessions.

Albeit, the strengths of non-participant observation, this method of gathering data have its drawbacks. Some of the impediments identified in this study are that only overt actions can be recorded; in some situations, some stakeholders made interpretable expressions. In additions, some reactive acts could not be captured due to barriers such as language, historical understanding of culture and belief, hence, a non-participant observer must have some local knowledge of the subjects being observed. A typical example was when some of

the stakeholders tried to communicate with the researcher in their local language, but the research could not understand the language. That was a very obstinate moment of the fieldwork; it can be argued that some rich context of information was missed as a result. Again, there were sites that the research could not physically visit due to the distance, and other limitations like time and security issues.

Conversely, adopting this technique was an extensive experience for the research, it can be said that it was an opportunity to be in the front line of such enriching natural environment with a vast set of diversity. Having experience in different work culture, traditional beliefs, and encountering sites that are termed to be sacred and witnessing some areas of restriction for women, such an experience can be called to be a contribution to knowledge in research methodology wall of expertise as no literature has recorded such unique encounter.

5.8.3. Document Analysis

Document analysis is a unique form of qualitative research, the method is characterised based on how it gathers, and analysis data. Document analysis is a systematic process that involves planning, coordination, and data analytical skills. According to O'Leary (2014), there are different ways to conduct document analysis; physical evidence and documented evidence. Document analysis was conducted on the Greater Port Harcourt City Development project reports on investment policy, and project progress reports to ascertain policy adequacy and mid-term report. In this study, both the physical evidence and the project documents were assessed. Document analysis is a tactical process of extracting meaningful information from available materials.

In this study, the project mandate and some project reports were analysed, to establish some of the key performance indicators of the Greater Port Harcourt City Development project, percentage of completion and evaluation reports on the different projects. However, critical aspects of the project documents, which were the financial report, the project initiation document, the project impact report and the terms of contract award. These would have been vital documents to have as evidence for this study, but they were not available. It was also essential to have access to the project contract award procedure to establish the criteria for the contract award to different companies, which was to provide insight into the expertise of the contractors.

Furthermore, it was essential to determine the stakeholder's management policy in place for the term of the urban development project. The document analysis also enabled a detailed understanding of the master plan of the Greater Port Harcourt City Development project. The review established that there was a substantial variation from the original master plan and the one under implementation. The initial master plan was to utilise the mangrove region of the city without affecting rural settlement within the state, but on the current master plan development is towards the eastern part of the state, this is one of the themes that emerged from the interviews with participants saying the project is politically oriented because both the past and present Governors of the state are from that region 'Ikwerre' coded as C4 on the stakeholder coding table.

5.9. Qualitative Data Analysis

According to Gray (2014), analysing qualitative data requires a wide range of robust approaches. Saldana (2012) posted that analysing qualitative data is a tedious task, as it requires a rigorous process of identifying, coding and categorising data. Fisher (2007) postulated that it is essential to analyse qualitative data as you get it. Issues around cumbersome data were mitigated by transcribing, coding and reviewing the audiotape of the interview and observation notes. Gray (2014) pointed out that qualitative data analyses are judgmental; hence, the raw data gathered from the interviews were transcribed, coded and crossed checked with participants to ensure that there were no contradictions. For validity and relevance to be achieved, the researcher was in constant communication with the research participants post data collection, which not applicable if conducting quantitative data analysis. These were done to enforce the strength of the chosen analytical method-(thematic analysis) in this study.

5.9.1. Thematic Analysis

According to Saunders et al. (2012), there are several ways to analyse qualitative data. Nevertheless, the research must be able to make a constructive interpretation of the data gathered from the social actors (participants), in this study, the stakeholders. Hartman and Conklin (2012) posit that thematic analysis involves a rigorous process of identifying themes emerging from raw data and coding them based on the textual data obtained. In this study, at the end of each interview session, the audio recordings were transcribed for easy understanding. Hartman and Conklin (2012) further explained that thematic analysis is

expedited yet very insightful, it is a commonly used analytical tool of qualitative research, and it is not dependent on any theoretical stance. Conversely, this method was adopted to provide insight into the perceived sustainability of the Greater Port Harcourt City Development Project.

It is, therefore, essential that the researcher is familiar with the context of the empirical data, analyse them objectively (Gray, 2014), and develop themes that direct the study. It is also vital to make sense of the qualitative information presented. The empirical finding of the research guides this analytical tool, and it gives a rich context of the data. In this study, the qualitative data were grouped into distinct areas of impacts such as the economic, social and environmental, and an appraisal of the data set was conducted to establish the relationship of the findings. Although thematic analysis is a useful and flexible research analytical method, it is cumbersome, and often a problematic technique to adopt. This systematic approach, however, can provide a detailed account of data, which is a strength. Selecting a thematic analytical method in this study set the stage for the researcher to have an in-depth understanding of how participants' make sense of their daily encounter, experiences and behaviours (Hartman and Conklin, 2012).

In this study, the thematic analysis was used constructively; the interview recordings were transcribed to extract the context of the interview, responses were examined, and common themes were highlighted. Thematic analysis is constructive in the way it develops its themes or patterns regardless of the approach, either inductively/bottom-up or deductively/top-down. The themes of this study emerged from participants' responses to semi-structured interview questions. Using a semi-structured interview enabled me to probe participants further in areas where further clarity needed, it also, allowed and encouraged open-minded conversation. Although it was not quite easy to convince them about confidentiality, once, they felt comfortable, they were sincere in expressing their views.

The challenge encountered during the interview was how to articulately stay within the context of the conversation, as halting the flow of the discussion, which would have been done quickly with a structured interview. The researcher needed to extract every bit of information as possible, not knowing what is coming up next and what is the most important information from such open conservation was a significant downside of this analytical

method. In agreement with Hartman and Conklin, (2012) thematic analytical method lacks clear and concise guidelines. However, a good understanding of the phenomenon being studied was vital. Although it was quite challenging to develop constructive themes from the primary data gathered, it was mitigated by careful consideration of the related issue of the subject matter 'sustainable urban development'.

Another difficulty encountered by using this analytical method was that the information was topical; hence, it was challenging to streamline them. It was essential to capture every information; otherwise, it is easy to have a misconception about the data set, thus, misinterpreting the context of the data gathered. During analysing the data, it became apparent that the study was more complicated than I imagined. For instance, in trying to establish the social inclusivity of the project, subjects like cultural inheritance, traditional beliefs and diversity in languages emerged and broadened the context that was being addressed. According to Ejumudo (2013), as cited in Ezema et al. (2016), urban development has been classified as a failure due to diverse culture and traditional beliefs, uneducated civil leaders, and urban planners.

5.10. Case Study Selection Criteria

Factually, to have a good understanding of the phenomenon, the case study must be appropriate and chosen well (Denzin and Lincoln, 2005). Bryman (2008) also makes it clear that case studies are associated with a location such as a community or organisation. Achieving the aim of an investigation is essential, and it is imperative to have a good understanding of the phenomenon of the selected case study (Yin, 2013), which is an unsustainable urban development in this case. It is also crucial to understanding the other essential elements related to the case location (geographical, demographical, political and economic criteria, and language).

The Great Port Harcourt City Development Project in Rivers State was selected because it cuts across eight strategic communities within the state. It is also a unique project that is geared towards developing the infrastructure of the entire state and a benchmark project within Nigeria. Therefore, the case project meets the case selection criteria of having values in varied ways in terms of the impart rate. In this study, the case study locations also meet

the requirements because they are uniquely situated across the state, and they are mostly indigenous people of the community. Which mean their values and preconceived ideas of what sustainable development will be highly considered. The uniqueness of the case study is also the fact that it shares a geographical boundary with other states within the country, thus providing an opportunity for the researcher to have contact with the end-users of the project, which is a crucial determinant to understand if the value is achieved or not. Another critical criterion of this case study is that the findings of this study can be generalised across other projects of this nature in Nigeria and Africa at large, which falls in line with Eriksson and Kovalainen (2008)'s argument of why case studies can be generalisable to a reasonable extent.

5.11. Purposive Sampling

Saunders et al. (2012) posit that the sample size of the research is a fundamental aspect of the study. They further suggest that critical factors, such as the scope and nature of the topic, must be taken into consideration when deciding the sample size of research. In this study, the scope and the nature of the topic were key determinants why I chose 52 participants, and I articulately selected stakeholders that are directly involved in the project. The sample size cuts across the eight communities that are affected by the Greater Port Harcourt City Development project, the project sponsors and project practitioners who directly have decision making powers in the project. Again, the topic of 'sustainable development' is relevant to the urban development project.

For clarity, the non-probability sampling was the most appropriate for research that involves an investigation that is geared toward change, which utilises research instruments such as semi-structured interviews and non-participant observation. This research adopted the purposive sampling because it determines the research participants; this type of sampling method allows the researcher to select the research participants that will provide precise information about the phenomenon of the research study. The research participants were selected based on their level of involvement in the project, and they further referred the researcher to others that will also aid the investigation, which is the 'snowballing technique'. This technique enabled the development of a broader group of participants because they made suggestions for potential participants; hence, all participants are community leaders/members, project sponsor and project practitioners. 'Group A' stakeholders are top

managers, ‘Group B’ stakeholders are project practitioner and ‘Group 6’ stakeholders are community leaders as coded in Table 5.2: Stakeholders Participant Coding.

The non-probabilistic sampling method was adopted instead of probability sampling because the research seeks opinions, not numeric facts. The purposive sampling was the most appropriate method to select participants for this study as the researcher sort information from a predefined group of participants, who are knowledgeable about the phenomenon of the study. Participants were recruited through snowballing technique, it was adopted to gather primary data from people, and they recommended others who could also be helpful. The selection of these sampling methods was driven by the research design, which encourages the collation of data from different participants.

Furthermore, it was chosen to enable the researcher to decide whom to get vital information from, and by so doing the researcher was able to group participants into groups and decide how many participants were required from each group. This technique was first tested with a pilot study of 10 participants. Afterwards, the main study employed 52 participants from a different set of stakeholders group. The researcher grouped the 52 participants into three groups; ‘Group A’ was made up of 6 participants, ‘Group B’ was made up 6 participants, and ‘Group C’ was made of 40 participants divided between the eight communities respectively as coded in Table 5.1: Stakeholders Participant’s Coding.

5.12. Theoretical Justification of Method

Several methodological approaches have been adopted in urban research, Elenwo (2015), utilised quantitative in investigating the relationship between the socio-economic and how they affected communities of the Greater Port Harcourt City Development Project. However, this study adopted qualitative research methods because the study is phenomenological. Social science research is mainly phenomenology as it seeks to acquire knowledge distinctly; hence, the quest to gain knowledge in a specific area like sustainable urban development. In this study, the phenomenon being studied is a social issue that required in-depth understanding to make justifiable meaning out of the research data. Conversely, the methodological approaches of such social science investigations emerge with subjective data; hence this study adopted a qualitative approach to enforce inductive reasoning to accommodate the findings of social interaction in the Greater Port Harcourt City

Development stakeholders, which enabled the researchers to gain a rich context of data and experienced dynamics findings that cannot address objectively with quantitative methods.

Furthermore, this methodological approach was adopted in this study because of the nature of the investigation and the selected research stakeholders. The study involves social actors, and the methods enabled the expression of opinions that can be justifiably interpreted using qualitative data analysis like the thematic analysis. Mason et al. (2017) also adopted qualitative research to conduct a similar study investigating isolated sports infrastructure development projects. The methodological approach was adopted because it facilitates the understanding of a phenomenon. In contrast, quantitative methods do not consider the feelings and opinions of social actors; hence it was not utilised in this study because it would have been challenging to address the stakeholders' opinions from a social constructivist perspective.

Nevertheless, some other methods tend to undertone the fact that social actors are the main drivers of any urban development. On the other hand, 'Soft System Methodology' (SSM) should have been an option for this study, but considering the nature and the stage of the case study project it won't have been a feasible option to conduct focus group inquiry hence, it was not adopted. Soft System Methodology (SSM) is a very effective qualitative research tool that can be adopted in an 'Action Research' where social actors act as a vehicle of change, and it is mainly used in process improvement.

This methodological approach was adopted for its unique real-life encounter through case study inquiry, listening to stakeholders share their opinions and experiences provides exclusive knowledge, that cannot be gained from quantitative research. The fact that the researcher can relate to different participant in their natural environments is fulfilling, priceless, and it gives an in-depth understanding of a phenomenon by providing broader insight into the underlying issues in the urban development project. When they say; "urban development is a challenging and complex process", I now understand because there are too many variables to consider, especially with stakeholders.

The justification of the research method is that predominantly, research participants are receptive to qualitative research data collection techniques (interviews) as they can freely air their views and opinions. Participants are also of the perception that their opinion counts if the outcome of the research is acted upon and brings about a positive change. This research

employed qualitative research with a case study to allow the researcher to get primary empirical data from a real-life scenario (on-going project). These methods were also chosen in line with the nature of the research questions “how” and “what”.

A qualitative research approach was adopted to explore the subject matter of sustainability, to gain an in-depth knowledge of how stakeholders preserve the concept of sustainability. It has been identified that formal and informal constraint determines the success and failure of development projects. Therefore, it is imperative to understand the informal constraints like attitude and behavioural elements influencing participants as emphasis by (Fenske, 2010). It is better to understand the underpinning factors and adopt approaches that will enable how and where the concept can be incorporated to achieve the target of including stakeholder effectively.

The qualitative research approach to research was again, adapted to enable the researcher access project documents and visit project sites. It enabled the researcher to understand and juxtapose the interrelationship between facts seen in documents and participants’ opinions in their natural settings. It also enabled the researcher to understand the participants’ views better, especially when they express their grievance. After successfully, adopting and implementing the developed framework, it can also be used as a benchmark in other emerging city development projects. Thematic data analysis was adopted to aid capture the emergence of themes from the research questions. Interviewees capitalised on some critical issues that were singled out, and the reoccurrence of those points further developed a pattern that informed the researcher about the value of the data.

5.13. Ethical Considerations

Grix (2010) and Cooper and Schindler (2003) ethical consideration is concerned about protecting the rights of research participants. This study was conducted under strict ethical guidelines.

- **Ethical Approval**: The researcher filled and signed the University of Greenwich Ethical Compliance form, which was approved by the Research and Ethics Committee (attached in Appendix 6).
- **Anonymity**: The researcher guaranteed stakeholders that their organisational and individual identity will be held confidentially. The identities of the participants of

this research study are kept anonymous, although, none of the participants was underage or disadvantaged, and the research had no negative impact on any of the participants' individuality or work.

- **Consent Form**: The researcher ensured that all participants gave their informed consent before recording the interview with an audio recorder. For instance, a consent form was sent to participants before the day of the interview, and extra copies of the consent forms were made available to mitigate any eventuality.
- **Data Protection**: The research was conduct without causing harm to any of the participants, and it was obligatory to protect the research participants' legal right and privacy under 'Data Protection Act 1998, now General Data Protection Regulation 2018'. The research ensured that the research did not and will not cause harm to any of the participants.
- **Participant Information Sheet**: All participants who took part in this investigation were informed about the nature of the research, and why it was being conducted, they had a free will of participation, and none was compelled to take part in this study.
- **Confidentiality and privacy**: To address the concerns of protecting participants' identities, they were grouped into three categories and assigned a code.

5.14. Validity and Reliability

In qualitative research of this nature, validity and reliability cannot be over-emphasised given that data can be influenced by participants (Yin, 2013). Yin (2013) also pointed out that validity is particularly problematic in a sole case study. However, that was mitigated through multiple data collection sources (Bryman, 2008). Hence, the researcher collected data from different stakeholders' group and conduct also collected data from secondary sources like project report and project mandate. Carmines and Zeller (1979) opine that unless the research is valid, the research is not reliable. They further pointed out that the reliability of research is based on the degree of stability and the level of constituency involvement in the measurement of the phenomenon on reliability, for instance, if a test yields same result under the same context then the result or findings is said to be reliable.

In a deeper context, validity and reliability are determined when the finding of the research is established to be trustworthy regarding its dependability, credibility, confirmability and

transferability (Patton et al., 1983). Dependability means the stability of the finding over a reasonable time (Bryman and Bell, 2011). The study is an on-going project; hence the findings are within a reasonable timeframe, and the researcher kept in touch with selected stakeholders to track with the progress of the projects. Credibility implies that the findings of this research are unbiased and accurate to a high degree. Conformability means to adhere to internal prudence in a tropical research environment, and the research didn't allow personal values to intrude in the research. Transferability in qualitative research means that subsequently, the findings of this research can be applied to future research in another context. Thus, the finding from this study can be used in similar research that involves stakeholders and urban development.

This study is conducted on an on-going project, data is evolving from the project site, and people directly affected by the development, therefore, the validity and reliability of the study cannot be questioned. However, issues of validity were dealt with using multiple data collection sources (interviews and observations) and preliminary data was collected from reliable sources, which follows the triangulation principle of data collection. The researcher transcribed interview recordings, the findings of the research, recommendation and the conclusions of the research were unbiased, therefore, and this research can be replicated within a similar context.

5.15. Participant Coding

The primary data collection process was conducted using semi-structured interview questions. Raw data was gathered from face-to-face interviews with different stakeholders' group. Participants' were grouped and assigned codes for anonymity: Group A comprised of project sponsors made up of government personnel, coded as participants A1, A2, A3, A4, A5 and A6. Group B comprised of project managers from engineering and construction companies, coded as B1, B2, B3, B4, B5 and B6. Group C comprised of community leaders/representatives of the eight local areas coded as C1, C2, C3, C4, C5, C6, C7 and C8 with their respective codes from 1-5.

Table 5.1 Stakeholders Participant's Coding

Participants	**Stakeholders category**	**Stakeholders Code**
Project Sponsors	Group A	A1, A2, A3, A4, A5, A6
Project Management Practitioners	Group B	B1, B2, B3, B4, B5, B6
Communities	**Group C**	**C1-C5**
Port Harcourt	C1	1, 2, 3, 4, 5
Obio/Akpor	C2	1, 2, 3, 4, 5
Ikwerre	C3	1, 2, 3, 4, 5
Etche	C4	1, 2, 3, 4, 5
Eleme	C5	1, 2, 3, 4, 5
Ogu-Bolo	C6	1, 2, 3, 4, 5
Oyigbo	C7	1, 2, 3, 4, 5
Okirika	C8	1, 2, 3, 4, 5
Total		**52**

(Source: Author)

5.16. Limitations of Methods

Although all reasonable measures were taken to ensure the high quality of this research work, some inherent constraints like time and physical resources were key limiting factors.

- The first relates to the case study; because the project consists of eight different communities, and numerous projects sites going between the locations to conduct interviews and site visits was challenging. It could be argued that further research is required to validate the findings as a different case study investigator could emerge with varied data and a different analytical method could interpret the findings in diverse ways (Yin, 2003). Similarly, the language was a barrier as some participant tried to communicate in their local language, but because the researcher did not understand the language, it could be said that some key information was missed.

- The second limitation is to do with the sample size of the participant, and the study was limited to utilising non-probabilistic sampling for the selected group of stakeholders like government personnel, project practitioners, and community leaders from the eight (8) different communities. According to Bryman (2012), non-probabilistic sampling enables ease of getting qualitative information through its unique adoption of snowballing. In the light of that, the researcher, however, acknowledges that there is a broader spectrum group of stakeholders that could have potentially provided valuable information, stakeholders like NGO's, community members living within and in other neighbouring communities, investors and suppliers. Therefore, a further study should recruit a broader range of participants that will include a probability sampling that will utilise random selection.

- Thirdly, urban and physical planning laws are similar in Nigeria, thus limiting the case study to Port Harcourt makes it impossible to generalise what is happening in other African countries where they have a different land law and urban development policy. Hence, the decision to tailor the framework to be flexible in a way that it can be modified to fit the purpose, regardless of the project and the location.

- Fourthly, despite the assurance to keep interviewees details anonymous, some participants (project managers) were still holding back their honest opinions.

Gummesson (2003) posits that a reoccurring limitation of qualitative data collection method is that participant tends to be secretive in terms of holding back sensitive information, which contributes to the research not being a true reflection of on-going challenges. Limitations such confidentiality and privacy did not influence the reliability of the study, the research mitigated this by reassuring research participants of protecting their identity. Once, the issue of privacy and confidentiality was addressed, participants were confident in talking about issues freely.

- Finally, amidst the numerous issues to be addressed, the researcher was unable to probe for further information due to time constraints and the sensitivity of the case project. For example, it would have been relevant to conduct a cost/ benefits analysis of the Great Port Harcourt project, but time would not permit this as the project is still in its infancy stage. Hence, the cost/benefits cannot be ascertained by this study, but it can be evaluated in future research. Also, the sensitivity of the case study project did not permit a further probe on the project mandate and other reports.

5.17. Summary Chapter

This chapter aimed to present a comprehensive summary of the overall research approach adopted. The study adopted exploratory qualitative research based on inductive reasoning. The study utilised case study as its research strategy and employed qualitative data collection methods such as semi-structured interview, non-participant observation and document analysis. The case study strategy was obviously, the best machinery to study the Greater Port Harcourt City Development project as it provided an opportunity for an in-depth understanding of the prevailing issues and subsequently aided the investigation. The qualitative approaches adopted in the data collection processes were the most appropriate for an urban development project that involves stakeholders. The case study method adopted enabled a robust investigation that provided answers to the ‘How’ and ‘Why’ research questions. The philosophical stance of the research was cover and the theoretical perspectives discussed. The justification of the method, limitation of the study, ethical consideration of the research was all critically addressed. The next chapter covers the discussion of findings; the factors hindering the sustainable urban development of the Greater Port Harcourt City will be explained.

CHAPTER 6: DATA ANALYSIS

6.1. Introduction

In this chapter, the data gathered in the previous section will be critically analysed through the research design. The study adopted a qualitative research process that employed the use of qualitative data collation methods like a semi-structured interview, non-participant observation, and secondary data from the review of project documents. For the semi-structured interview, a face-to-face interview was conducted with 52 stakeholders from three different categories. The stakeholders were categorised based on their level of involvement in the case study project, and they were grouped into three groups: project sponsors who Government personnel, project managers who are construction practitioners working across different projects, and the community leaders across the eight (8) communities. The interview session lasted for 45 minutes to 1 hour; the non-participant observation was carried out across five (5) different project sites, and finally, for the "document analysis," the project mandate and published reports was analysed.

The face-to-face interview session that was conducted with 52 different stakeholders, which enabled the researcher to ascertain how powerful social actors are, how they react in different circumstance or situations, and how strong their opinions are about different subject matters. Social actors are strong determinants of project success, especially in urban development. Urban development projects are mostly infrastructural projects; thus, they must be designed to be people-driven.

The interview sessions were the most crucial aspect of the study. In my opinion, all participants expressed their opinions honestly about the different projects in their communities. Participants were given consent forms, which clearly states that their privacy and identity will be protected; hence, they freely expressed their opinions and spoke about their concerns. Another exciting aspect of the interview's sessions were occasions where friends and families of the interviewees chipped in some vital information, and that information formed an integral part of the findings. Passive contributions like this constitute the strength of qualitative research that utilises semi-structured interviews.

The findings of the research and the methods adopted in the collation of data were very interactive, thus, appropriated for social actor's investigation. Although the interviews were quite challenging, it demonstrated the importance of stakeholders' interactions. There were dynamics encounters with different multi-level stakeholders, their attitude towards different subjects like sustainability, demonstrated a rich cultural perspective of their different communities.

Predominately, their reactions to the interview sessions demonstrated their core values and beliefs, which is a crucial strength of qualitative research. If this study was conducted with quantitative research methods, it is apparent that this study would not have derived such a rich context of information from a stakeholder's perspectives, and the sessions were recorded based on agreed confidentially.

The document analysis of the project reports provided a detailed understanding of what has been documented through the life of the project till the time of the study, though, there were a lot of contradictions with regards to what was documented and what was physically on project sites when I visited. There were clear indications of falsification, which supported the notion of why community members were disrupting the project. The level of corruption and nepotism was evident across all eight communities, and the engagement with different level of stakeholders exposed me to first-hand information and gave me a broader perspective of the issues going on those communities.

Due to the profile and sensitive nature of the case study projects, the identities of the different stakeholders needed to be protected, hence, they were assigned different codes for easy identification as shown in the table below:

- The 'Project Sponsors' consists of government officers, who are part of the Greater Port Harcourt City Development board and from the Rivers State Ministry of Urban Development and Physical Planning.
- The 'Project Management Practitioner' are independent urban planners, project management, architects and Civil Engineers engage in the development projects.
- The 'Community Stakeholders' consisted of community leaders and some prominent members of different communities; who have been directly involved in

the project, and some of them have spearheaded protests against the projects in their communities.

6.2. Interviews

Interviews are unique in the way it enables detailed extraction information from people in social sciences; it is used to gain an in-depth understanding of a situation from different perspectives. Notably, data gathered from interviews cannot be underestimated as they provide a rich context of information. The findings from both the interviews and observations revealed that there were problems fundamental problems with attitude, amongst the various categories of stakeholders that indicates a lack of understanding. Stakeholders were grouped into three and asked a separate set of questions, as shown in Table 6.1 below:

Table 6.1 Stakeholders Participant Coding

Participants	**Stakeholders category**	**Stakeholders Code**
Project Sponsors	Group A	A1, A2, A3, A4, A5, A6
Project Management Practitioners	Group B	B1, B2, B3, B4, B5, B6
Communities Stakeholders	**Group C**	**C1-C5**
Port Harcourt	C1	1, 2, 3, 4, 5
Obio/Akpor	C2	1, 2, 3, 4, 5
Ikwerre	C3	1, 2, 3, 4, 5
Etche	C4	1, 2, 3, 4, 5
Eleme	C5	1, 2, 3, 4, 5
Ogu-Bolo	C6	1, 2, 3, 4, 5
Oyigbo	C7	1, 2, 3, 4, 5
Okirika	C8	1, 2, 3, 4, 5
Total		**52**

(Source: Author)

6.2. Themes that emerged for the interview

The interview started by research participants being asked what their general opinions about the Greater Port Harcourt City Development project are? An array of adverse responses emerged, and most of the stakeholders said, it was a politically oriented project, and some said it was a means to loot funds. Such responses indicate a lack of trust for the government, and profoundly, citizen loses trust for their government when there has been a history of bad governance. Over the years, there has been a history of heightening stream of bad governance in Nigeria, and this has affected every aspect of development in the country. Another major factor that impedes development in Nigeria is the issue of corruption, people walk into public offices with the sole aim to enrich themselves, and by so doing they deprive the masses of several levels of infrastructural developments.

6.2.1. Lack of Communication and Consultations

Participants from Group C were asked; were you consulted before the project commenced? If yes, how were you consulted? And how do you think a broader consultation could have been made? If No, why?

There were mixed responses of 'Yes' and 'No'; apparently, there were selected group of people that were informed of the projects, *Author* "*but because they are uneducated, they could not articulately ask relevant questions to know and understand the impact of the project".*

> Participant C3.4, 5; C4.1, 4, 5 said; "*we were invited to the government to have a meeting with the governor and he promised us that he was going to fix our road and connect it to Etche*".

> Participant C1.2,3.5 said; "*we were told that the government wants to expand our road and they were going to demolition some buildings, within two months were had letters stating the value of our family house and the amount we will be paid to find alternative land or house. This triggered a huge sense of hunger in my community, this is our village, I was born here, and I have lived all my life in the house, where are they expecting us to relocate to?*"

Author…"This is not the best consultation approach to deploy for an urban development project; there should have been a structured approach to inform stakeholders of the initiative and conduct appropriate analysis to establish is the projects are feasibility or not based on the impact statement ".

Several participants maintained that they were not consulted about the project initiation.

> Participant C3.4,5 said; "*we just saw tractors clearing a bush area, and nobody knew what was going on, the locals of the communities don't have a say, it is the people that live in the city that don't know what is going on in the villages that the government liaison with*".

> Participant C1.4 said; "*they don't get everybody involved; it is a usual practice here. They handpick the people they feel they can give money to the community and negotiate with them, by doing that we do not consider that to be consultation*".

This is a widespread practice in Nigeria, and it can be described to be culturally acceptable.

> Participants C2.3; C4.1,3; C5. 2,3 said; "*it is not that the government do not seek to consult with the communities, they do consult with the chiefs of our communities and it is a norm that they accept things they have no prior knowledge about as long as they are given money.*"

Author..."Liasioning with a selected group, depicts what social inclusion stands for in the sustainability model". According to Doloi (2012), social inclusion advocates all-inclusive participation and acceptance of stakeholders. To this regard, it is arguable that some stakeholders' theories have failed to address the fundamentality of the multi-level stakeholders' model that addresses the legitimacy and the matrix of power bestowed on certain stakeholders.

6.2.2. Lack of Appropriate Urban Design/Planning

Lack of appropriate urban design and plan was another sensitive issue addressed during the interview sessions:

> Participant B2 said, *"there is no standardised urban design/ planning procedure if we have a standard template then, that should have been good, but in the absence of that we work based on what is issued".*

> Participant B6 said, *"if we had any adoptable methodology, then we will be sure of the uniformity in the design and planning process, but that is not the case. Changes are done without proper consultation with the architect and civil engineers. I have worked abroad, things are not done in this manner, so when we are faced with challenges, we know why it happened, but this is the way Nigeria works".*

> Participant A3, "*there are frameworks, but we know that they are not being implemented, and we have made arrangement to address such issues going forward. These are part of the agenda we have on next project review meeting".*

6.2.3. Lack of Standardised Project Design and Initiative

The study revealed that there are fundamental flaws in project design and initiation.

> Participants A1 explained "*Although the project is well conceptualised, there are some lapses in the design. The project was designed by a South Africa company that did not take the demographics and geographical issues of the State into considerations".*

> Participant A6 said*, "The idea of the project is great but what we cannot do is force the people to embrace it and enjoy the benefit. I think it is a good thing that development has come to their localities and they should embrace it".*

Participant A3 maintained, "*If the project had adopted the previous design of the colonial masters, then we won't be facing all these issues, and we are working to make amendments to the mistakes of the past*".

Participants A1 said, *"For me, I think it is too early to embark on such a project. The focus should have been on refurbishing existing infrastructures, then redesign them to align with the new ones but, we have to follow the vision of our leader. He wants things done quickly, but that is not the right approach, doing it well would have been the best".*

Participant B1 said*, "the problem I see about this project is that it will increase the number of strangers that will come into the Port Harcourt, if it had followed the previous design, then our people could have benefited more because it will bring development to the waterfront. But as it stands now, everything has been moved toward the Ikwerre villages",*

Participant B2 said, *"Developing the mangrove will be a disaster if we must be honest to ourselves, see all the areas that land was reclaimed from rivers, every October they encounter flood. These are some of the things that were not taken into consideration in developing the design because Arcus GIBB is a foreign company".*

Participant B1 further pointed out, "*the project was designed to integrate the old Port Harcourt, but physical that plan has failed because major infrastructural layouts have been distorted*."

6.2.4. Political Instability

The findings of the study revealed that the political situation has resulted in instability in Rivers State, Nigeria. Author..."*The situation has dramatically affected the entire development process of the state both at the state and local Government level. Several*

projects are left uncompleted till after the general election". All participants confirmed this and gave a concrete description of the unrest and how it affects the level of development.

> Participant A1, A6 emphasised that "*we saw satisfactory progress on this project until all these political issues started. Things are more settled now in terms of the election. Going forward the project with be looked at to address certain issues*".

> Participant A1; A3; A5"*After the elections, the project board was dissolved, and a new board was appointed by the Governor, now! With the new development of the elections being nullified, we are clueless about how to push on with things. Although some key persona will be retained, it will take a considerable length of time for the team to return to site*".

> Participants A1; A2; B3; B4 and B5 also said, "*Realistically, the State is on a standstill, nothing seems to be working at the moment*".
> Participant C8.5 said; "*Politics in this Port Harcourt is a 'do or die', politicians have discovered that it is the quickest way to gather wealth, so they stop at nothing to secure a position even if it is to kill."*

> Participants B3; B4; C1.4; C3.3; C5.1 said; *"once they get into power, everything stands still till they recover the capital and proceeds of the money they invested in the election."*

> Participant B2 said; "*Truthfully, it is desperation that causes political instability in this state. When contracts are awarded, we get people from different political positions seeking commission, when the project have not even started. With such things going on within the government, what can we do?"*

6.2.5. Lack of Continuity in Governance

It was revealed that the structure of the government does not allow continuity.

Participants from groups A, B and C said, "*different politician come with different agendas. Some have fantastic ideas with good intentions, but a four years' tenure is not enough to plan and implement their ideas, and the next government will not carry on with the vision*".

Participant A4 said, *"Government has become a personal race in this country, you come and go with your vision. The next person will come and do where he can get to as well".*

Participants B2 said, "*look around, there are abandoned projects everywhere, the new government will rather initiate new projects than finish the project his predecessor started because it will be to the glory of the person that started it",*

Participant C3.4 said, *"No new governor wants to complete another person's project, but they fail to understand that it is the state's money, not their personal money".*

Participant C5.1 said, "*All the ministries are being controlled by commissioners that are appointed for two years, and afterwards they leave everything to reverse to square 1, and we start waiting for another commissioner to assume office".*

Participant C4.3 "*So! We are in a country where political positions are self-determined not in the interest of the citizens*".

Participant C3.5 "*The monorail project is an example of the kind of issues we have to deal with because of lack of continuity in government projects because Amaechi started the project, Wike is never do anything on that project, and frankly, that thing is defacing the area*".

Participants B5 said; "*lack of continuity in government affects all aspect of the urban development project including the project finance. When one tenure end, nobody is accountable for anything. Companies have to re-bid for the project, and if you are fortunate that the same project is rewarded to you, then it is a bit easier; otherwise, you lose everything the government own you*".

> Participant B1 said, "*if we continue like this, then the state won't see growth, something needs to be done on how the state is being run. There should be a framework that everyone in the office should follow, this idea of 'government go! The government come' with new initiative won't lead us far".*

This also depicts the sustainability criteria to be met by project contractors, in the UK, contracts and procurement have a robust procedure, which makes every contract to be awarded based on merit, and it is dependent on the outcome of the company's 'Pre-Qualification Questionnaire' (PQQ).

> Participant A3 have a different view about how lack of continuity affects the Greater Port Harcourt City development project; "*I am one of the few that was retained, almost everyone is new, so it is a big struggle to make considerable progress. The contractor and staff are new, and they must first understand what the project is about before they can be delegated tasks, all these will take time and the longer the projects will be delayed. It will also interest you to know that a significant part of the project mandate has been altered without prior consultation. A different set of projects have been rolled in: church, event centre and a recreational park. While we want to keep our jobs, it is challenging to be efficient within such a tense political oriented work environment."*

6.2.6. Interference by Political Elects in Government Parastatals

Author.."*The study revealed that there had been massive interference in the different government parastatals, which undermines the rights of the directors of the different ministries to carry out their statutory duties effectively. Interference by politically elected officials was observed during the site visits, where commissioners in power are awarded contracts; as a result, nobody questions the activities on the project site".*

> Participant C2.2 said, "*People intentional do the wrong things because they know people in government*".
> Participants C5.5 said, *"the idea of man knows the man is our number one problem in this country, even when contractors know that what they have been*

asked to do is not good they go ahead and do it because the person they know within the authority will cover them up".

Participants A3 raised concerns about the different ministries are not doing anything about the condition of the city, saying that, "*This is not the Port Harcourt I left my village to 27 years ago when the city was not as crowded as it is now. In terms of government, the military was still in power, and yet we had a structure".*

Participants B1; C7.2,5; C3.1,2; C1.2,3 support participants A3 saying, *"Saturdays were set aside for sanitation, regardless of who you are, you will dare not find yourself not involved in the clean-up exercise, the city council workers will be out ensuring that they clear up debris, police will be everywhere arresting people enforcing the law. Nowadays, one can easily ask what do they do in those offices? The city is flirty, literally every corner is a refuse dump, people build shops right in front of their house and even encroach into main roads, but nobody from the ministry of urban development and Physical Planning will even ask a question because they don't know if the person is a commissioner's family member."*

Author…"*These are the kind of issues that are encountered when political elects are interfering in the government institution. There is a need to have a clear distinction of what politicians should be involved in, and if there are policies in place, then, they should be driven by the Directors of the respective ministries*".

6.2.7. Lack of Professional Regulatory Bodies

The study revealed that there are different regulatory bodies in Nigeria, but their presence is not recognised.

Participant B2 pointed out that "*when we do government projects, it is difficult to adhere to regulations and keep the projects within scope because nothing is stable. Payments are never on time; hence; we end up with numerous degrees of overruns".*

> Participant B1 pointed out that "*if we are to follow regulations then, it will be almost impossible to carry out any project in Nigeria, due to corruption*".

> Participant B1 and B2 "*The only way is to operate how we know best; the management style is subject to who is involved in the project and who it is for. We are loyal to the people that pay us, and that is how it works."*

6.2.8. Resource Source Depletion

The study revealed that the region had suffered long-term resource depletion. For decades the ecosystem of the region has been vulnerable, and many host communities' livelihood has been declining, leaving them with unmeasurable impacts. River State has a long history of environmental catastrophe, and the concerns are vast and varied, covering a wide range of resource sources, including food. Excessive exploitation of resource sources poses s severe threat to not only our natural environment but also a threat to our social and economic identity.

The pursuit for resource control by the different rival group within the state is more profit-oriented than a justifiable course for resource source protection. There are several resources within Rivers State; a mass region of mangrove forest, oil trees, cash crops, and vast region of the rich sea and ocean beds. Several communities within the state have crude oil deposit, and it is pathetic to mention that over the past two decades most of those host communities can't eat crops grown from their soil or drink water from their streams. A typical example of such a community is the Ogoni kingdom.

Unregulated resource (crude oil) extracted have left many communities suffering from diverse types of pollution like water, air, land and noise. In the past two years, Port Harcourt city has been caught up with one of the numerous threats of resources depletion 'Black soot', caused by incomplete combustion of hydrocarbons.

> All participants Group A, B and C commented on this with so much concern, but they don't seem to understand what measures can be taken to address the issue.

Participant C1.1,4; C2.3; C3.1,2 said; "*the issue of the black soot should not be ignored as it a life-threatening issue, the food we buy in the market is covered with black dust when it rains it is absorbed into the soil and infects our drinking water (borehole) when you cough and spit out it is black. Frankly, we don't know what the next five years holds, the aftermath of this will be lungs disease and a series of other health challenges that we don't even hospitals to treat them."*

6.2.9. Inappropriate Use of Land and Water

The study revealed that most of the lands earmarked for the Greater Port Harcourt city development projects were taken over by the government; the lands were previously used for farming.

Participants C1-C8 uniformly maintained that the government doesn't care about their livelihood. They asked concerning questions like *"Where are we going to be farming? When the government take our lands to build different things".*

Participants, A2 and A5 maintained that "*farmers within the affected communities were provided with alternative farmlands, and they were given incentives to support them for the period, while they settle into the new location. The incentives were to support them with the cost of clearing the land, and they were encouraged to register for an ongoing agricultural scheme*".

The perceived challenge in the situation is that there is a lack of conceptual understanding; the issue with appropriate land use is not about giving incentives. The suitability of land usage is questionable from every perspective.

Participant A5 raised an issue about inappropriate land use "*For example, one of the project sites that was meant for an ultra-modern hospital was halted after the ground-breaking ceremony, and this was after sixty million dollars was sunk up from Canadian foreign investment."*

Participants B2 and B3 said, *"These are some of the situations an integrated team of practitioner can address".*

Participants A1 and B3 said, *"On the issues of inappropriate use of land and water, one of the major challenges with some of those projects is that they have extensive degraded land and water in some of the communities"*.

Participant A2 said, *"In the last decade, the level of agricultural productivity has declined, and in some areas, they can't even get the smallest crop out of their soil due to practices like deforestation on the rise because of these projects, thousands of hectares of forest have been lost to make way for projects that can easily get alternatives.*"

Participant A4 said, *"For example, a huge portion of the forest was claimed to build a new stadium, while the old one could have been renewed. The severity of the damage environmental degradation can cause is not known to urban developers in Nigeria. It is almost impossible to see an area reserved for green space, grasslands have been destroyed, and it has altered the hydrological conditions of the land in the city".*

Participant A3 said, "*increase in population is a major cause of land degradation, but it can be coped with prepare land management policy. The lack of land management policy and practice is one of the factors that can make an individual acquire a vast land and build something you can only describe as 'nonsense' on it, and the land is wasted for car parks, swimming pool and paved gardens".*

6.2.10. Land Grab

During the interview, it was revealed that the government grabbed community lands.

Participant C1.3; C2.1; C3.4, C4.4 C5.1 and C7.3 *laminated over the issues of land grabbing by the government, as they are predominately from the upland region of the state, they said, "we cannot make any long-term plans with our family lands, even those of us that farmers are worried because we will wake up one day and hear that our land will be used to build one thing or the other".*

Their fears are valid because a few of the participants were affected by such land takeover by the government and they are shared their experience, although, they were paid compensations, they money was not enough to buy another land.

> Participants C1; C2; C3; C5; C7 complained that "*it has been a tradition that our parents share land amongst children in the family, and we sell our land to either start business or go to school. But with the events of recent years, people don't want to buy land from us anymore due to the fear of the land being taken over. Frankly, it is affecting our livelihood; even when you have pressing needs, you cannot sell your asset to raise money because of all these problems".*

> Participant A2 commented on this issue of land grab saying that "*Government don't just take over lands, the landlords are given adequate notice period, and they compensate they base on the market value of the land, but over the years we have witness landlords selling off their lands after they have been duly paid compensation. Thereby, leaving the new owner in the trap of facing the government when the need for the land arises, that to me is a criminal act".*

Technically, the land use decree of 1978 that allowed individual ownership and communal ownership was disregarded, and to a large extent, it enabled the government to have absolute power to acquire land in the name of development control and urban renewal.

> Participant A2 also mentioned that *"people were warned not to acquire land with Certificate of Occupancy, but it is typical of our people not to listen to government warning because they have people in authority that can manipulate the system for them forgetting that it will only be for a brief time. Once, another government comes into power, and they will also enact their power".*

6.2.11. Lack of Power Supply

One of the reoccurring themes during the interview was the issue of energy.

> Participants from all categories referred to "*the lack of electricity supply is a major problem that hinders development in this state. How can a business*

function without power? In the last administration, billions of Naira was invested in a gas turbine project that nobody hears about today. Everybody generates power for themselves; if you have the money you can buy a big generator, if you do not have the money you buy the small generator that we call 'I better pass my neighbour'.

This was a shocking topic to address, how can a region that exports crude oil be having issues with energy? Participants were quite an unease to talk about this. It seems this was an overwhelming topic to discuss.

Participants from A; B; and C said, "*We provide our own source of electricity, anyone that cannot afford to run generator stays in darkness, or they use the local lamp with kerosene, which is a known cause of reoccurring fire incidents where people get burnt to death or with life-time scars because there are no hospitals even to treat the victims. Over time, we have tried to avoid it, but it is an increasing problem because the fuel for generators is locally processed, so they are dangerous".*

Participant C5.5 said; "*We cannot even trade and make a profit because every penny we make goes back into electricity to run the business. I sometimes wonder how the big business manages or even foreigners who would like to come and do business in the city*".

6.2.12. Poor Agricultural Development

The main occupation of the people of Rivers State are farming, and fishing and productivity have massively declined with some of the communities unable to engage in farming or fishing activities. With heighten urban poverty, urban agricultural development has been an essential measure as it can potentially alleviate the pressure on food scarcity.

Participants from the upland say, "*the government does not care about how to revive their communities from the long years of agricultural underdevelopment,*

neither do they consider how the projects will affect them in terms of the food availability".

Other participants from A2; B4 said, "*the state had experienced severe economic obsolescence because of historical issues of insecurity, even before the agricultural situation got so bad, they were unable to trade freely. Farmers are being attacked and killed by unknown people. Fishermen must go int the deep ocean to fish because our waterways are polluted, in the process they either get killed by militants or drawn in the ocean."*

6.2.13. Social Deprivation

Social deprivation is an ambiguous subject to discuss, and it surfaced as one of the factors hindering sustainable urban development. Majority of the community stakeholders' beliefs that the government is taking advantage of them because they are socially deprived. Emphasis was made particularly on lack of education, lack of opportunity, social exclusion and lack of political freedom, which have profoundly made them lost their dignity as a community.

Participant C2.4 said, *"Our communities have been invaded, we watched it happened, we complained but who will listen to us? The chiefs in the community liaison with the government and collect money from them. Our rights and inheritance were not considered".*

Participants C3.3 said; *"we don't have an identity, when we tell people we are Ikwerre, the first question is which of the Rumo's are you from? We don't have a village because our villages have been taken over by strangers. The painful part is that we can't even enjoy our festive events, neither can we exercise our cultural rights anymore, talk less of our tradition."*

Participant C5.4 said, *"We are suffering, and the government is not willing to pay attention to our complaints, infant deaths have dramatically increased over the past four years. We are host community to NNPC and Eleme Refinery, but how many of our people work in the office? None because we don't have the resource to fund our children to study in universities. Nobody listens to us, not*

even the companies that operate in our communities. Year in/out we see how people from the North troop in to come to work, while we are left to do the dirty jobs."

Although there are different opinions about what social deprivation is, it is essential to debate on issues that are classified as indicators critically; hence, it may be relevant to establish that low socio-economic status impedes urban development. This conclusion is made based on the facts that, if these community members have access to a considerable decent quality of life, either through education or employment, then it can be said that they will have a different perspective to urban development and embrace it, instead of perceiving it as a threat.

Participants C5.2, 4 said, "*at the moment, we feel indifferent about the urban development whether or not the urban area develops, it will not change anything for us".*

6.2.14. Poor Return on Investment

In addressing the issues of poor return on investment, all participant from group A and B3 commented negatively,

Participant A6 said, *"We don't have a workable PPP (Public-Private Partnership) arrangement within the country, and that is a major limitation to the development of the state. Realistically, nobody is to be blamed for this, the economic and political situation of the country affects PPP initiative, in the past government have invested so much on making PPP plans work, but we are experiencing an institutional and systemic failure that has challenged our economy in recent years.*

Participant A4 mainly referred to the event of 2011 about the Kiribi Whyte Specialist hospital, He said, "*The Kiribi Whyte Special Hospital was meant to be a sustainable project under a PPP arrangement, but it failed before it even started due to problems around the condition of the soil in the location. Nevertheless, we took responsibility for that failure and till date, we are dealing*

with that scandal because the Canadian parties had committed funds, but there was no way we could compromise on issues such as soil suitability. The government have lost a significant amount of money on failed projects and efforts are being made to tackle them from the root – the ministries, particularly the Ministry of Land and Housing and the Ministry of Works".

Participant C1.4 said, *"With the way things are in this city, I don't think anyone would like to come to do business in this city. Because before you set up, you must pay all sort of money to unidentifiable group of people. Besides that, there is still insecurity issues to deal with, and there is no electricity and no good roads to business districts".*

6.2.15. Lack of Infrastructural Maintenance

Beside unprecedented population growth, infrastructural decays are predominantly caused by lack of maintained. The issue of lack of infrastructural maintenance is a profound challenge in the continent, and it is a fundamental problem amongst African countries. This is mainly because they lack the appropriate skills and technology to maintain urban infrastructures.

Participant A2 said, *"A major challenge we face in Port Harcourt is maintenance, there is a fundamentally a lack in our maintenance culture. First, it is because of the shortage of skilled labour and secondly, availability of spare parts".*

Participants B4 said, "*One would have thought, the government will invest money on trying to regenerate the water boards, restore the government schools and rebuild the hospital they demolished, but instead, they are out on building different things that will have their names on it. What can anybody say or do? They are in-change, and we go by their wish till after their tenure*".

6.2.16. Unemployment

There were concerns about the increasing rate of unemployment because of urban decay.

Participants from Group C7.1 said; said, *"Rivers State is suffering a high rate of unemployed because the city has lost its icon as a 'garden city', and that*

insecurity has mostly caused most companies to relocate to cities like Lagos and Abuja."

Participants C5.1, 2 and C7.2 and C3.4 "*raised concerns about how their community members used to reject jobs and sell it off to non-indigence, but now they can't even find factory jobs*".

6.2.17.Categorising the Emergent Themes

The themes that emerged from the interviews provide a detailed understanding of the factors which are hindering the sustainability of the Greater Port Harcourt Urban Development project (see Figure 6). In order to understand how these factors specifically affect the sustainability of the project in the city, the factors have been interpreted using the Disaggregated Sustainability Model (see Figure 2.8) and summarised in Figure 6.2.

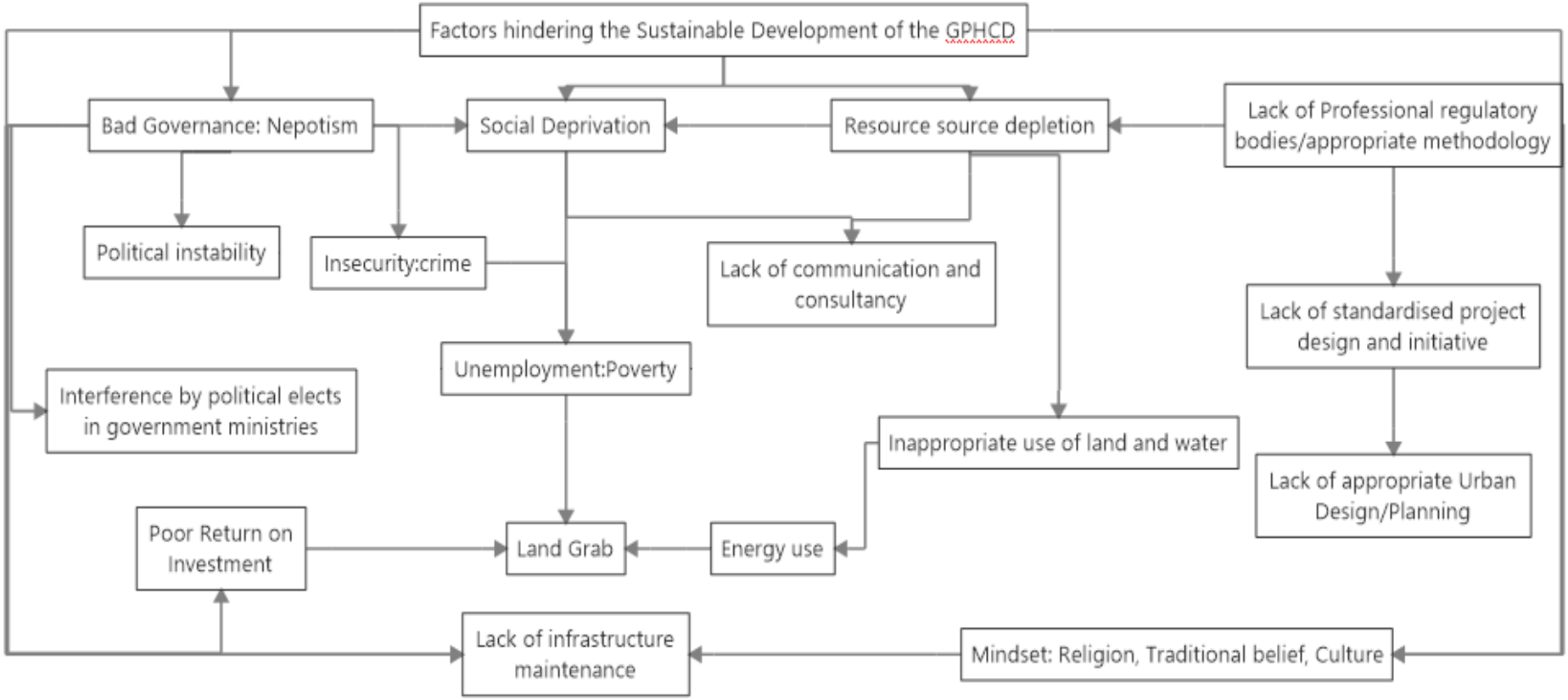

Figure 6 1: Factors Hindering the Sustainable Urban Development of GPHCD

(Source: Author)

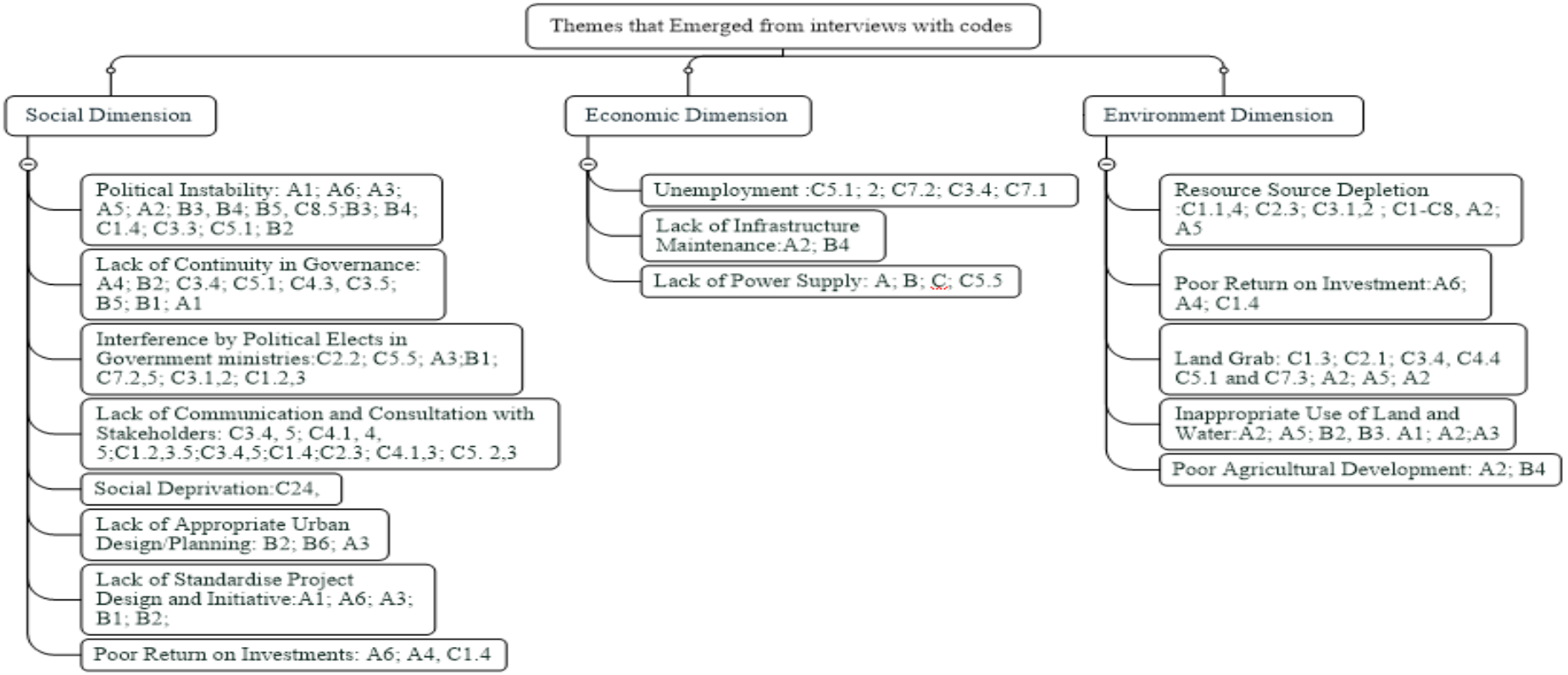

Figure 6 2: Participant Codes Inserted into the Disaggregated Sustainability Model

(Source: Author)

6.3. Non-Participant Observation (Observation notes)

The aim of the non- participant observation was to observe how work is being carried out on the project sites, to understand the current way of undertaking the projects, and propose best practices that can be incorporated to have a robust project management approach. During the observation, I was documenting the work ethics within the site, the behaviours of the workers, especially the project practitioners. Upon reviewing the observation notes and comparing them with the document review notes, it was clear that there were no criteria for the project execution. I discovered numerous discrepancies, which were a contrast from the information gathered from category A participants. The analysis revealed confirmed the degree of social deprivation, as displayed in the themes chart. There were documented reports that stated some projects were completed, but upon the site visit, there was nothing physically present. The non-participant observation provided deep insight into why the project is being disrupted, and this can be generalised to what is happening to other projects in Rivers State and other African cities.

The observation notes exacted from the non-participant observation showed that there are fundamental issues with the projects. Several issues had occurred in critical functional areas of the Greater Port Harcourt City Development project, some of the project areas had experienced flood because of waterways being block because of no proper drainage facilities. It was observed that the community stakeholders are highly neglected and have experienced severe water and land pollution due to damage caused by a damaged pipeline during excavation, and they made their annoyance known by not wanting any further development in their community.

There were significant issues with the attitude of the people, which includes all levels or categories of the stakeholders. People portray a high sense of indiscipline and lack of responsibility, nobody could give a proper account of the project tasks they were assigned to, they walk in/out of work without the conscience of being late or not, and nobody asks any question about their whereabouts. This sort of attitude reflects on how most government establishments are operated. There is a common saying that '*na government work'...meaning, it is a public establishment, so nobody cares*. The level of unprofessionalism was a thing of concern on all the site, and with the entire workforce, some

of them have turned the site to their residential homes with their wife and children living on the site. These are the sort of issues professional standard and frameworks should address concerning health and safety.

6.4. Document Analysis

The case study project mandate and some project reports were reviewed critically. The documents revealed several discrepancies from what was sighted and observed during the non-participant observation. Reports that were provided indicatively showed projects that were completed, but on-site, no substantial work has been done. The reports contained visual pictures of what the projects are expected to look like upon completion. Therefore, it was evident that the documents did not present the actual state of the project. The project mandate did not contain factual pieces of evidence of what the various project cost was, which indicates that the viability of the project was not considered through an appropriate feasibility study.

6.5. Chapter Summary

The findings of this research challenge the assumption that Sub-African cities are undeveloped due to corruption; instead, the data present a true reflection of how a social issue like mindset impedes development in African cities. The qualitative data collection adopted into this research provided a deep insight into the problems from a stakeholders' point of view. The findings also revealed some decisive and reoccurring themes, which can be associated with some of the factors hindering the success of the Greater Port Harcourt City Development Project. Every urban development requires significant infrastructural development in areas like transportation, housing, road network, water and electricity to be addressed. Still, it must fulfil specific indicators before it can be termed sustainable.

Sustainable urban development should inevitably integrate sustainable measures at distinct stages of a project such as during the initiation, planning, execution and monitoring/control and closure phases of the project. It was revealed that there are no regulatory standards in place to monitor and benchmark the projects because of projects being awarded to family and friends of political elects (nepotism). The empirical study conducted on this case study revealed that sustainable urban development is perceived differently by the different categories of stakeholders. Some stakeholders consider it to be a stable city with excellent economic prospects, and others believe that sustainable urban development should create equal opportunity for everyone. Many others do not seem to know what it is all about; all they are concerned about is how they can sustain themselves. However, this further explains why stakeholders engage in different unsustainable activities as they lack awareness of what to look out for in sustainable urban development, and ignorant of the implications of theirs.

CHAPTER 7: DISCUSSION OF FINDINGS

7.1. Introduction

In this chapter, I discussed the key findings of the research by integrating the theoretical and empirical perspectives. The research aim was to develop a framework to sustainably manage the Greater Port Harcourt City Development Project in Rivers State, Nigeria; and other emerging economy. To set the scene for this discussion, the analysis of the research findings will draw inferences from the different literature review and findings from the Greater Port Harcourt City Development project.

The research objectives were as follows:

- To understand how the Greater Port Harcourt City Development Project was initiated, designed and implemented.
- To identify and examine the factors hindering the sustainability of the Greater Port Harcourt City Development Project.
- Recommend best practices to practitioners, and proposed an adaptable urban development strategy to policymakers.

Back in chapter 2, I developed an 'Integrated Sustainable Project Management Model' as shown in Figure 7.1. The model was developed after studying the underpinning theories on urban development, project management, stakeholder's management; the gap in available literature made it difficult to put the concepts into perspective, thus, the model. The model enabled me to put the concepts of sustainable urban development into perspective by providing a platform where consideration can be made on the nature of projects undertaken in urban development. Considering that, this discussion will elaborate on how far the findings of the research can be analysed based on the models and the impact table generated in Table 2.1.'Sustainability Principles and their Impact on Project Management Phases', A detailed narrative of the research findings will be presented, highlighting the identified challenges of the Greater Port Harcourt City Development project, and make considerable

justifications to why project sponsor should take a different approach in managing the projects.

After careful analysis of data set in the previous chapter, this research has achieved the set aims and objectives. The findings of the study were relevant in deciding the approach to be adopted in the making recommendation will guide policymakers on strategic areas. The findings revealed significant details on strategic areas that policymaker can focus on to achieve sustainable urban development. It was revealed in the findings that there are several abandon projects within the; therefore, it can be argued that this project would suffer a similar failure if crucial measures are not taken to address this trend in Nigeria, and Africa at large.

7.2. Integrated Sustainable Project Management Model

The integrated sustainable project management model was developed by drawing inferences from theoretical, the practical and professional knowledge of what ideal project management should be in an urban development project, after critically examining several urban development models. The model explains the need for comprehensive integration of all project phases, including the different feasibility analysis that is required to be conducted across the phases of urban development. The various project practitioners required in developing an urban area work in collaboration to ensure that all aspects of the project meet its ascribed indicators for sustainable urban development must be met.

Therefore, the integrated sustainability model was designed to embed sustainability principles across the five phases of the project. The initiation phase, it is essential to ensure that the project meets stakeholders' requirement, the planning phase should encompass inclusive participation, which could be termed to as stakeholders-drive; the material used should be from sustainable sources, investment in human capital to improve their skillset and ensure adequate continuous maintenance and improvement culture.

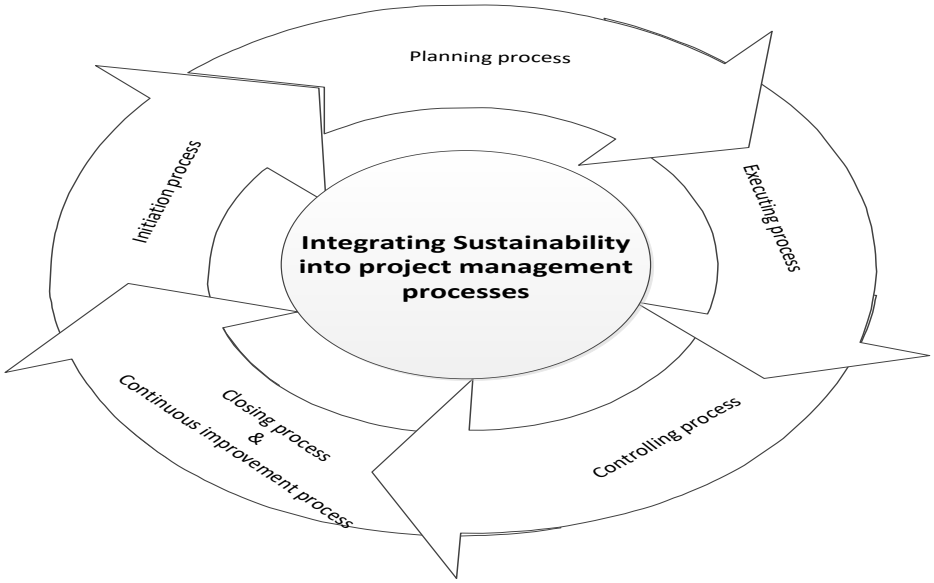

Figure 7.1 Integrated Sustainable Project Management Model

(Source: Author)

Reflecting on the research questions asked in chapter one, the findings of the research have revealed that several factors are responsible for hindering the sustainable development of the Greater Port Harcourt City Development project. Some of the identified factors are lack of awareness, corruption, nepotism, political instability, religion and traditional beliefs, diverse ethnicity, cultural difference, lack of continuity in government tenures and the issues of mind-set. The issue of mind-set is prominent because it was a reoccurring data set both from the interview and from the non-participant observation. There is a norm to how most of the stakeholders perceived and react to government projects. The perception is that the government do elephant projects to embezzle funds, and that is the mindset most of the stakeholders have. It was also, observation in the way and manner they carry out work and the absent of work ethics on project set, which can be addressed by a project management regulatory framework. The framework will incorporate work ethics and safety measure for urban development projects.

7.3. Sustainable Urban Development Model

The Sustainable Urban Development Model was developed to address the identified challenges of the Greater Port Harcourt City Development project. A successful application will consider stakeholders perspective across the different phases of the urban development project, and it will also consider strategic urban planning measure as emphasised by (Xu and Li, 2011). The model is also embedded with varied compliance for project practitioners, taking into consideration that there are currently on best practices for the project. Sustainable urban development can only be achieved if stakeholders are included in the initiation, planning, execution and future maintenance plan of an urban development project.

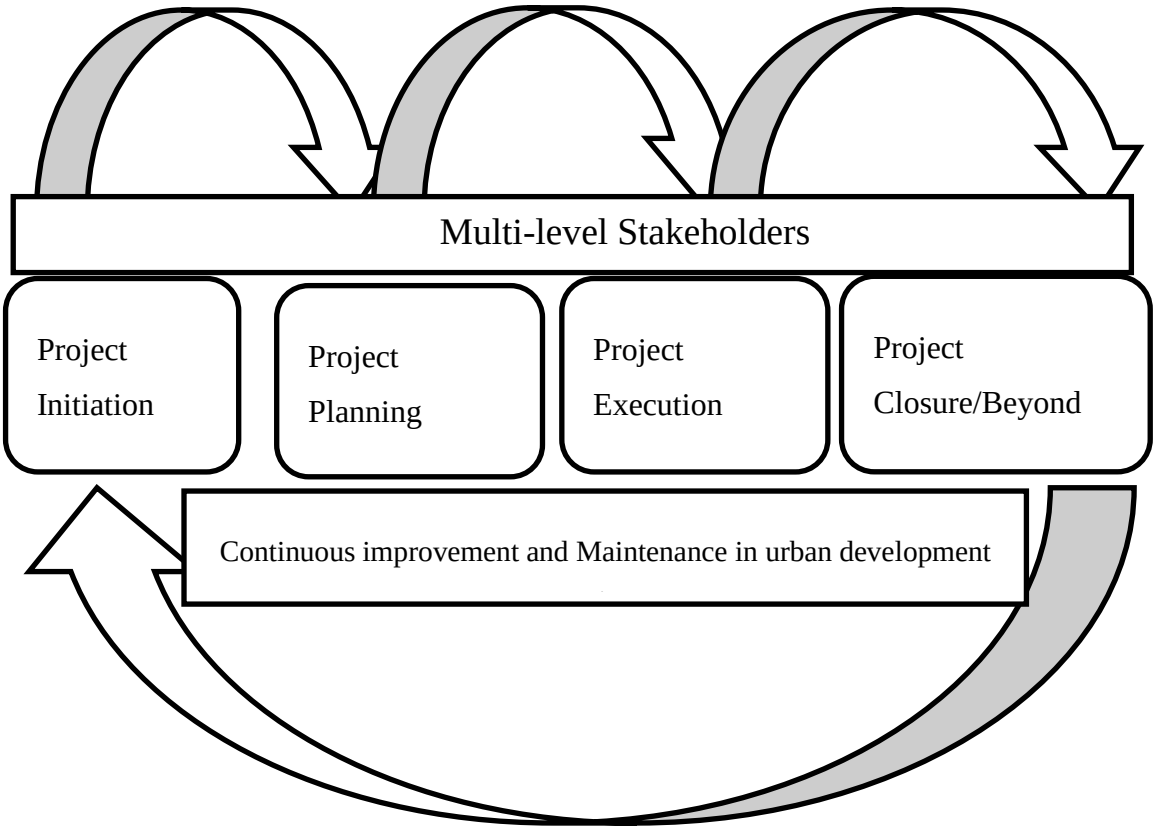

Figure 7.2 Sustainable Urban Development Model

(Source: Author)

7.4. Applying the Integrated Sustainable Project Management Model

In the light of the findings from the interviews, to ensure the sustainability of an urban development project, it is of utmost importance that stakeholders are included at each phase of the project. The influence and power of stakeholders were made apparent in the case of the Greater Port Harcourt City Development project, and the model proposes constant consultation with stakeholders through the lifecycle of the as shown in (Figure 7.2). The model also highlights the importance of continuous improvement to address some critical issues associated with social deprivation. From the local communities' stakeholder's perspective, each phase of the project should have key sustainability indicators, which are well signposted to how they will benefit from the project. These approaches are expressed in different ways through the project phases:

- **At the project initiation**

  It is essential to consult with a broader spectrum of stakeholders to identify core concerns and issues that might affect them; thus, set sustainability goals and clear objectives. The feasibility studies should be conducted over a reasonable timeframe, such that it covers several seasons. Transparency at this of the project will rebuild the lost trust communities' stakeholders have on project sponsors.
- **At the project planning**

  It is necessary to incorporate the sustainability principle and objectives; develop guidelines for the operational phase; and set metrics to measure how they perform. The plan should consider key elements like resource source, purchasing plan and schedule, and award of the contract to curb the issues of fund embezzlement.
- **At the project execution**

  It is imperative to ensure the operations are configured to meet sustainability indicators and criteria. Based on the case project, the model considers the recruitment of indigenous people, who know the urban area.
- **At the monitoring and control**

  It is essential to check the systems for project performance and impact rate frequently. The necessary to adopt metrics to monitor sustainability outcomes was made clear in the case project, where the Kiribi Whyte Hospital was terminated since the soil cannot carry the hospital. Monitoring is essential to manage and maintain the system and structure.

- **At the project closure**

  It is of utmost importance to conduct regular reviews to ensure unexpected risk are identified and addressed to avoid adverse effects to the detriment of the affected communities.

7.5. Applying the Sustainable Urban Development Model

Based on the works of Xu and Li (2011), they emphasised the need for appropriate planning as an inspiration for sustainable development in urban development. Their proposed planning highlights the cores aspects of the challenges faced in African cities. Their perception of urban planning established the need for collaborative working by project practitioners. Similarly, it can be adopted as a guide in varied areas of interest in an urban development project.

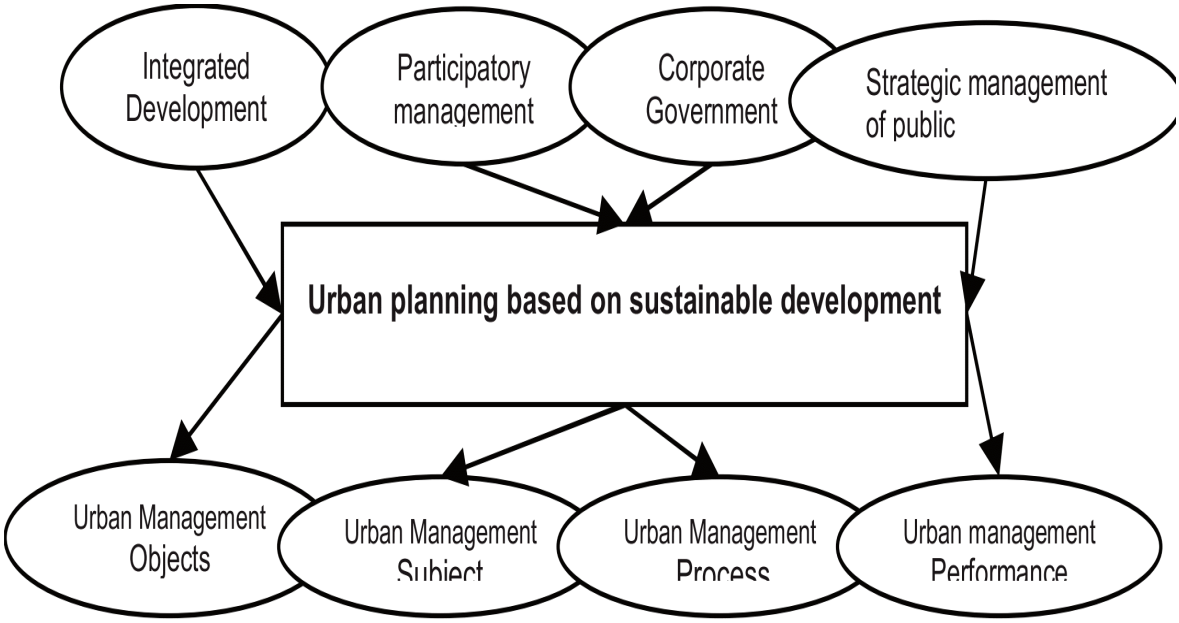

Figure 7.3 Urban Planning for sustainable Development Inspirations

(Source: Adopted from Xu and Li, 2011)

The project practitioners of the Greater Port Harcourt City Development project should consider the application of the sustainable urban development model, as it could be used to highlight how the concerns of stakeholders can be addressed at each stage. According to Xu and Li (2011), identifying strategic areas of needs will enable comprehensive deployment of strategies to adopt in addressing the issues.

Using the 16 themes that emerged from the stakeholders' interviews, multi-disciplines project practitioners must reconsider their management approach to how urban development projects are carried out. They should consider a more structured management style that will encourage professionalism in project delivery. There is a need to implement some standardisation on how projects are being undertaken in Nigeria and other African cities, adhering to compliance is a crucial driver to achieving sustainable development. The application of the sustainable urban development model will ensure that projects are designed and planned to have the identified themes in mind across the different phases:

Project initiation

- On the issue of political instability, there should be a distinction across the different Ministries on delivering urban development; The Ministry of Urban and Regional Planning, Water Resource, Works and Transport, Energy should have a good understanding of their respective responsibility and their point of intersection. The involvement and interference of politicians should be addressed to allow appropriated delegation of duties, especially on megaprojects.
- Sustainable design initiative is considered from an indigenous urban planner who has knowledge on the intricate issues of the urban area and is available to review and rectify identified issues.
- Considerable timeframe to should be allowed to conduct project feasibility and analysis; Analysis such impact, environment, technical, financial, risk, and stakeholder's analysis.
- Ensure community governance structure is established for consultation.
- Communication channels with stakeholders are open and transparent
- General consultation and consideration made on social deprivation issues
- Employment issues

Project planning

- Appropriate use of land and water should be considered to address environmental degradation issues. As identified in the case project, farmland was taken over for the project. Careful consideration of how land grab practices can be addressed, as such issues are likely to spring into other social deprivation challenges.
- Considerations on resource depletion should also be taken into perspective as the aftermath of this can lead to severe drought and soil contamination from the oil spill as reveal in the case project.
- Agricultural development is an essential aspect of any development, for urban food security, there is a need to preserve farmlands.

Project execution

- There should be a well-defined community governance structure to curb the issue of uneducated chiefs and community leaders deciding for the entire community.
- Political interference should be addressed, allowing an independent collaboration of project practitioners.
- In considering project resource, a structured procedure should be in place to approve the award of project suppliers and project resource quality checks. For the power supply, for the urban development to be functional, the issues with inadequate power supply must be addressed by the government.
- The urban development is a strategy that can be used to create employment opportunity for indigenous of the community. Such opportunities will enable human capital development and reduce the crime rate.

Monitor and control

- Urban development should be monitored through various channels of its stakeholders' engagement. Benchmarking its success indicators how the benefits realisation is embraced, and the contributions made towards the projects by stakeholders.
- Urban development should be monitors based on how the projects address social deprivation issues

Project closure

- Projects should be reviewed to identify areas of risk and provision made for future infrastructure maintenance
- The investment on urban development should not be capitalised on just its financial elements like Return on Investment, Net Present Value and Internal Rate of Return; but including the social benefits.

Continuous Improvement and Maintenance

- The core focus of sustainability is to maintain future capability, which means a project that does not consider the future is not sustainable.
- It is essential to have plans in place for the future use of the projects, either by avoiding the consumption of its capital resource and project the long-term functionality of the project.
- The urban development can be used as a vehicle to reduce the poverty rate with the state.

7.6. Further Discussions of Research Finding

Urban development studies still undermine the denting factors of colonialism and how it has affected different African cities. Most African cities have ignorantly attempted to adopt models of the developed West which are predominately policy-driven. Rodriguez (2018) emphasised on the importance of people-centred development, but neglecting the multifaceted challenges of African urban area will continually deteriorate our cities. While, we try to follow the trend of urbanisation, modernisation and globalisation, it is vital to understand that it is time for cities in developing countries and the third world countries to get to where they need to be in line with sustainable development goals. Some countries have taken drastic measures to develop their urban areas through tourism. Kenya adopted an intervention programme that advocates people-driven development; the strategies are tilted towards developing tourist areas where they can generate income from. Over the years, they have embraced the change.

Myers (2001, p.1) states that "most urban social studies are still built on theories utilizing the US or European cities to stand as the universal model and metric, or the measuring cities in non-Western settings by the models and metrics of the West". Western models are designed and tailored to suit the regulations and the urban policies of their cities; hence, they cannot be a benchmark model for African cities where such uniformity in development does not exist. Similarly, Rodriguez (2018) addresses the issue of cultural infusion between urban and rural indigenous people, and urban development projects are mostly a capital-intensive project that requires a stable government to be successful. Nigeria and other Sub-Sahara Africans are struggling to maintain political stability and sustain a policy-driven development.

According to Myers (2001), most African cities are wounded by a long history of colonialization, civil war and bad governance that resulted from political violence and negligence. They significantly reflect why cities in the continent have such level of backwardness in all aspects of development, especially cities within the Niger Delta region of Nigeria like Port Harcourt, Warri, Benin and Calabar. Kiggundu (1991) suggested that it will be unhelpful to want to shape the future of African cities without first understanding certain elements of the past and present.

There is an unpinning trend of lack of compliance in the African context; both institution and individuals feel less concerned about adhering to any form of regulatory standards. Lack of compliance accounts for why most projects in Africa cities fail or are substandard; typically, projects should have methods statement that clearly defines how work will be carried out and under what framework. In the Greater Port Harcourt City Development project, it was revealed that there was no methodological approach in existence to guide the delivery of the project. The construction company were undertaking work based on when funds are made available, such approach of managing an urban development project is unstainable as there with be no consistency.

According to Gelrud and Loginovskiy (2016), the best way to get stakeholders support is to listen to their views. In urban development project consulting with stakeholders is the key to having a successful project; their views and interest must be incorporated into all the phases of the project's lifecycle. In attempts to address social exclusion, stakeholders should be consulted from the conception phase of the project as this will create a perception of self-worthiness for them. The findings revealed that the stakeholder's agitations are based on not being regarded, must of the stakeholders believed the government do not care about what happens to them. To address such challenge, According to Babatunde et al. (2016), the bottom-up approach of management will significantly ease the pressure of stakeholders' agitation in such developmental project. This approach gained remarkable success when adopted by Transit-Oriented Development.

The findings revealed that different aspects of projects have a direct impact on the stakeholders; therefore, their views must be considered from the concept development phase of the project. According to Babatunde et al. (2016), it is essential to have stakeholders as the focal point of any urban infrastructural development project as they determine the success or failure, mainly because they are the end-users and the most impacted. A simple cyclical stakeholder's engagement approach, as shown in Figure 7.3, can rebuild trust and transparency in an urban development project that has experienced a breakdown.

Based on the findings of the research and encounters with different stakeholders during the investigation process, it is likened, therefore, that African urban areas have not undergone the full evolutional process of urbanization that could term them as modernised cities. It was revealed that there are still significant levels of traditional beliefs, backwardness in their

mindsets, religious restriction, and unjustified loyalty in political situations that are impeding development in Nigeria and Africa at large. I agree with Fenske (2010)'s opinion on the impact of slavery and colonial rule, and he pointed out that African cities have a social, economic, and political history that is affecting development.

For comprehensive sustainable project management, these issues arising from the analysis of sustainability from the community's point of view must be addressed; otherwise, this is not a completely sustainable project. From the findings, it was revealed that the social dimension is more impacted; hence, there is a need to address such urban development project with the consideration of stakeholders in mind. Gelrud and Loginovskiy (2016), emphasis on the need to incorporate stakeholders as a measure to solve social issues. If stakeholders are involved through the planning and execution of the project, then they are likely to feel a huge sense of belonging.

According to Elenwo (2015), the completion of the projects would benefit the residents of the communities. Amongst the eight communities of the case study, six of them are upland communities, and the other two are riverine communities. From the findings, it was discovered that people from the six communities were strongly opinionated; they got across like they were ready to fight until things are done exactly how they wanted it. Because many of them are educated to a degree level, one would expect that dialogue would have been adopted. Instead, they adopted the approach of physical disrupt on-going project. However, the adverse effects of the projects were numerous, and stakeholders were of the notion that the project has increased issues of erosion of cultural values, the intrusion of family land, pressure on existing infrastructure and multiplied the number of sex workers in and around their communities. Globally, uncompleted project sites pose several types of challenges like health and safety hazard, crime harbour and defacement of the urban area (Xu and Li, 2011).

According to Xu and Li (2011), lack of integrity and governance initiative on urban development is questionable, and this practice can be generalised across African and Asia countries. Although there are some known challenges like corruption, nepotism, political instability, it is crucial to establish that the most significant problem is the mind-set. Xu and Li (2011) also highlighted how seriously people think about urban development project because of a lack of institutional integrity. The issues of mindset have been identified as a significant factor that hinders sustainable urban development in most African urban areas.

Its challenges cuts across all three dimensions of sustainability as applicable in both private and public establishment. Profoundly, the mindset of people directly influences how they perceive and embrace sustainable urban development. From the findings of this study, one can conclude that African urban areas are underdeveloped as a result of lack of awareness of sustainable development attributes, and the fact that theoretically studies on Africa urban areas have been primarily marginalised to the point that most literature address sustainability but neglects the fundamental issues with cities in Africa.

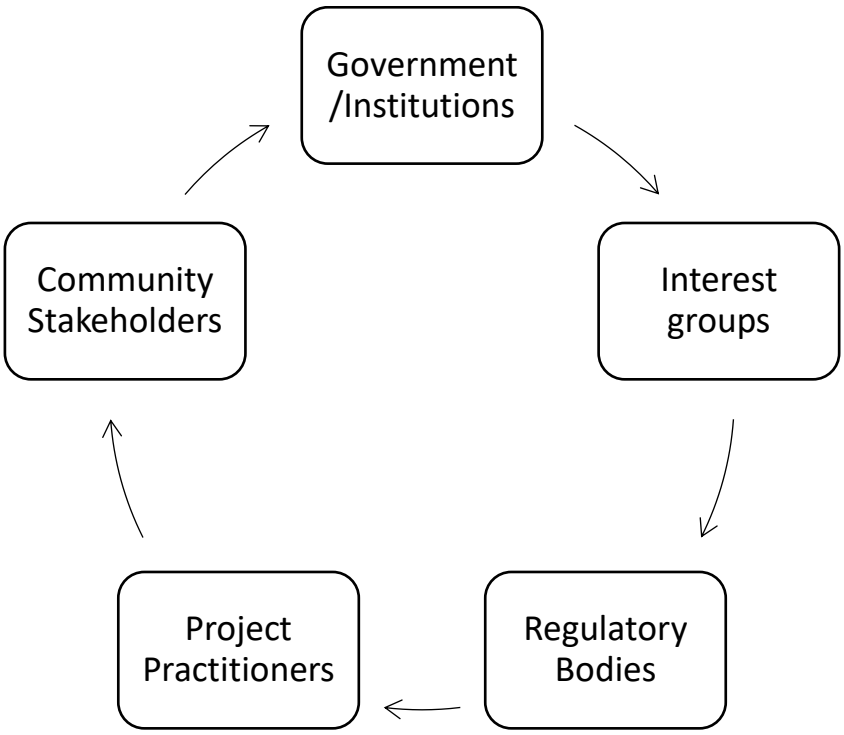

Figure 7.3. Stakeholders Engagement Approach

(Source: Author)

Theoretically, urban development projects do not have a specific approach; hence practitioners must endeavour to understand the dynamics of the urban and develop a bespoke approach to manage the projects (Mahgoub, 2015). For example, Arcus GIBB produced a project mandate that covered all aspects of development, but they did not take into consideration that the community members will object the project specification. From a project perspective, a robust project management approach should be adopted, and all practitioners must have a standardised methodology to manage the project. The methodology should embed sustainability principles from the initiation phase of the project. It is also

imperative that the different professional collaborated to have consistency across the different infrastructure being developed. Fundamentally, projects of this nature have a holistic management approach through its lifecycle.

The findings of the study were significant as the discoveries of different perspectives presented facts about the unique style of urbanisation in Africa. It also provided an in-depth understanding of why Africa cities are limited in both infrastructure and economic growth. According to Fenske (2010), African cities are unique and dynamic on how weak historical poverty has made to become, and this reflects on how they urbanise unsustainably. According to Ford (2015), there is a substantial difference in how urbanisation has taken place in both Africa and Asia countries. The trend of urbanisation in Africa is based on social cohesion caused by long years of the slave trade, colonial rule and underdevelopment (Fenske, 2010). In Asia countries, rural-urban migration is centric on the creation of manufacturing jobs and the creation of industries, which is mainly as a result of their culture.

Interestingly, there are different aspects of this study that gave an elaborate narrative of how most African villages emerged as urbanised cities, and how quickly they declined within a brief period because of lack of resilience to compete with cities in developed countries, which of course they cannot meet due to backwardness in technological advancement. According to Tabane et al. (2016), the trend in urban development has taken a new dimension both in developed and developing countries, especially with the emergence of ‘Smart City’, ‘Sustainable Cities’ and ‘Eco-Cities’ initiatives. Globally, urban areas are striving to attain sustainability through infrastructural development strategies and other initiatives to encourage people to have a lifestyle change.

Typically, in developed countries, as population increases in the urban areas, provisions are made for a relative infrastructural expansion. As pointed out by Ford (2015), African cities are poorly planned and challenged with unregulated development, which is a significant characteristic of urban decay. As revealed in the case study project, a vast region within the city is suffering from unregulated development in housing. According to Goertzen and Suhling (2019), intensive land use due to urbanisation have contributed to the threat of biodiversity. In the vein, houses built without appropriate consideration of land use has catastrophically increased flood-related issues within the Rivers State.

In the face of global infrastructural development, Africa cities are constrained by the way people perceive things, and this could be related to their attitudes. Tabane et al. (2016) cities are developing rapidly without corresponding infrastructural support; hence, urban infrastructures are decaying and accelerating the growth of informal settlement (slums). Despite the improved conditions of slums in African cities, the progress in Nigeria has been very insignificant in comparison to other developing countries like Brazil, South Africa, Nairobi and Tanzania. The study evolved around several projects that are directly associated with the different kind of challenges a typical Africa country face. The findings from this study establish the dynamics of African cities and how their challenges are perceived from different perspectives. Over the past few decades, most Africa cities have experienced a massive influx of people (World Bank, 2011). Some intriguing data resulted from the analysis of the different stakeholders' groups and their views of the projects were distinct across the different communities.

Another reoccurring issue was the situation of the ill-defined problems of the urban peripheries. Urban peripheries in the West are categorised distinctively; they are different but have uniformity in how they are structured and governed. While urban peripheries in Africa are predominately rural areas with a different structure and governed under the Local Government, hence, the weakness in how the structure is managed. Due to the structure, they pose to be a challenge to how urban infrastructures are developing because these rural areas are an integral part of the city. Still, there is no clear distinction between urban and rural development initiatives, which is in contrasts with urban development models of the West. In Africa, most rural areas are historical perceive to be villages with a primary function such as crafts, mining, farming and fishing. At the same time, the main cities are categorised as the central business district. Lagos, Nigeria and Accra, Ghana are typical examples of cities where their rural identity and values have been completely lost. The rural areas are burden with urban issues but left to the local authorities to tackle them, and over time they become fundamental problems that cannot be addressed. The ingenious people of most of the cities in Nigeria no longer practice their cultural activities; neither can they enjoy the peace of their villages because their towns have been invaded by urbanism. For Example, it is difficult to distinguish what part of Lagos State is the cities and what parts are the local communities.

Unregulated development in African cities has significantly changed the pattern of settlement, and this is a major contributor to the associated challenges of overpopulation, which is a feature of urban decay. The change in the pattern of urban areas has an adverse impact in identifying the parameters of the urban area to be developed, and this is associated with rural-urban integration due to poor urban space management and unimplemented urban policy. It is essential to bring our attention that different cities have conflicting social, economic and environmental needs. As such, it is crucial to identify the challenges of the cities, categorise them in their unique circumstances and address them with a bespoke strategy.

It was also discovered that an unidentified regime structure exists in these settlements as there was a smaller hierarchy of governance at the community level. Although the power lies on the Federal government, some projects are designated for state and other for local government, but what was not clear in this case study was, what parameters of the urban area is to be developed by the state government and what projects are to be handled by the Federal government. It can be argued that urban design and planning are fundamental to the success of any urban development project in Nigeria as recognised in the work of (Brown and Chikagbum, 2017). Urban design and planning are regarded as a multi-level approach towards transforming urban areas; however, sustainability principles suggest that good urban design should reflect key attributes that protect and preserves the urban environments, hence, if the design does not address the flood and resource depletion then it should be redesigned to incorporate those shortfalls.

As seen in countries like the United Kingdom, the government implement policies that ensure urban planners and designers' addresses a range of sustainability-related issues within the urban design process (Leyzerova et al., 2016). It is intriguing how issues like crime prevention, social inclusion, diversity, environment, cost, and community beautification are being addressed in the planning and design phases of the development project (Xu and Li, 2011). In the case of the Greater Port Harcourt City development project, sustainability was not considered in the planning phase, less it is a trial and error approach as the entire attention was focused on getting the projects done, whether the right approaches are being adopted or not. Failure in urban design and planning has a huge impact on the governance of the project.

According to Joss et al. (2012), the design and planning processes are the most vital stages of any urban development; hence, all aspects of the development projects are to be addressed, and mitigating measures are put in place beforehand. Although most urban development projects are physical, the design needs to integrate other intangible aspects like social needs. Urban areas are designed to integrate social needs like a sense of belonging, security, and wellbeing. These social needs can be derived by dialoguing with the users to understand how the project will fit into their day-to-day lives. According to the Commission for Architecture and the Built Environment (2000), urban design is the process of designing, creating, making and managing spaces and places for people. This definition echoes the crucially of the people (stakeholders), and it is very important to adopt a holistic approach to management. As it has been established that a blanket policy on urban development cannot be employed, considering that every community has a unique expected outcome of their urban area.

In the case of the Greater Port Harcourt City development project, it was identified that the design and planning were done by a foreign consultant that lacks basic knowledge of the geographical challenges of the region. The finding of the research revealed fundamental issues occurred in key functional areas of the Greater Port Harcourt City Development project. Some of the project areas experienced flood because of waterways being block, and there were no proper drainage facilities. One of the communities had severe water and land pollution due to damage caused by a damaged pipeline during excavation. Thus, Barry and Mayson (2000) postulate that disruption in the community contributes to deviant and criminal behaviour; typically, humans inherently react when they are not being listened to in time of distress. Different communities were highly affected by crime and several natural disasters as a result of the numerous numbers of abandoned projects, but nothing was being done about it.

Greater Port Harcourt City Development Agency was established to manage the affairs of the development and expansion project. The project was initiated and approved by the governor in 2009; the lack of consultation is one of the reasons why it is perceived as being political oriented. According to Mahgoub (2015), a mega infrastructure project requires ample time for planning and collaboration with various urban development experts. In the first four years of the project, a substantial amount of fund was invested, though this was not evident from the observation and document analysis conducted.

The study revealed that there are no performance indexes as projects are proved based on nepotism. Predominately, the project management life cycle takes into consideration the nature of the project before it adopts a methodological framework that will be used. The initiation and planning phases are the most crucial, which contradicts the view that the execution and control phases are most important.

It was discovered that there was no defined policy concerning sustainability with respects to how infrastructural projects are designed and executed. Although it was stated clearly in the project mandate that the project would be sustainable, there was no indication that Key Performance indicators were identified, neither were any best practice in place to guide the work ethics. According to Macke et al. (2019), urban development policies and success indicators should be projected from the neighbourhood (stakeholders). Although, it was speculated that the Rivers State Sustainability Development Agency (RSSDA) was part of the urban development partners. There was a misconception, the Rivers State Sustainability Development Agency (RSSDA) mostly focused on the educational empowerment, which had strong evidence of nepotism as revealed in the findings. The Rivers State Sustainability Development Agency (RSSDA) had no engagement with infrastructural development; educational empowerment is one of the several sustainability indicators; therefore, the is a need to provide a knowledge-based training for the project sponsors to understand the intricacies of not having uniform knowledge on sustainable development.

The finding of the research revealed that there were no sustainability policies in place, although there were indicators that were speculated to be met, there were no clear parameters for social, economic and environment benchmark. Macke et al. (2019) emphasised the need for social interaction such that social capital is built. They further pointed out that developments of this kind should be designed based on the understanding of shared values.

Going by Kiggundu (1991) views of an ideal urban development process, it is essential first to understand the history of Port Harcourt and what has befallen the city over the past decades before attempting to shape the city through a developmental plan. As seen in the case study project, contracting a South African company to design and develop the master plan without prior knowledge of the city is out of context. Arcus GIBB being a South African company, has limited knowledge of how the people of Port Harcourt consume space, how

receptive they are to foreigners, and how they react to change. All cities have their local content and whether that was factored into the design process is again questionable. Different cities utilise their local content in various ways, and their attitude and their mind-set predominately drive this. Utilising the local content of any urban area will improve human capital and further increase economic growth. The problem is that African leaders lack trust in their ability; hence, it is a customary practice that external sources are always contacted to carry out jobs that local people can be trained to do.

The issues of political instability in Africa cannot be overemphasised as it has a long history of impeding development. According to Freeman's (1984) stakeholders' theory, power and legitimacy are both essential attributes of stakeholders. According to stakeholders, the aim issues to be addressed in the city are not being addressed by the development projects; rather, the government embarks on projects that will enable them to embezzle funds. Embezzlement of funds is a common occurrence amongst development projects across Africa cities. The effects of fund embezzlement can be likened to the study conducted by Ehigie et al. (2006) where they studied the factors influencing politicians, and it boils down to the quest for personal achievement; hence, they care less about what happens to the others. Issues like traffic congestions, insecurity, poor health services and education are being overlooked, both theoretical and empirically.

In the same vein, Garth Myers as emphasised in his book African Cities, an effective way to understand African cities will be by exploring different cities to know their experiences in aspects like transport, waste management, electricity, road networking, sanitation, education, health and water. According to stakeholders, embarking on image building projects like churches, event centres, and sponsoring a selected social event is the least of what is required in Port Harcourt. Agreeably, projects that will address insecurity, traffic congest, and environmental pollution should be key areas to focus on.

According to Mossberger and Stoker (2001), lack of structure in the urban management regime stirs complexity across all aspects of the city, including the political, socially and economic entities. As identified in this study, there is no integration amongst the different ministry; hence, every ministry seems to independent. It was observed that the different ministries are headed by commissioners who are on a two years political appointment, the commissioner is not expertise on any of the ministries the head. The ministries have

permanent securities and directors, but the power lies on the commissioners who are there on a short-term, such fluctuation in the administration and management of these institutions are contributing to why there is no integration amongst them.

Most cities in Africa are victims of such an unstable system, where an incumbent government can, initiate, design, plan, execute and commence a project without any substantial progress. Subsequently, a new administration will be re-elected, and he/she has the power to change everything the past administration started. Even when it is passed into law by legislators, there are no binding regulations for continuity at the end of the tenure. In that vein, the new administration redesigns the project plan; the legislators of that administration will approve the plan and carry on with a new idea. Profoundly, this act disrupts long-term developmental plans, which has been the reason for the failure of several development projects in Nigeria and other African countries. Critically, such disruption in continuous developmental plans does not only impede infrastructural and institutional development; it threatens private and foreign investments.

Nigeria runs a democratic system of government, which means political elect governs for a four years tenure both at the federal and state government level. After the first four years, if not re-elected, there will be a change in government; under such circumstances, there will be an automatic change in policies. As identified in this study, lack of continuity in governance is a major reason why the country lacks strong institutional control, and there is no independent Civil Service control that will ensure continuity in policies. As emphasised by Brown (2017) inconsistency in government impedes systemic development, as there is no structure in the urban management regime as typified in the western countries. Urban regime theory emphasis how cities are being managed and intuitively governed.

On the issue of land grab, the stakeholders' notion was wrong because Nigeria does not have land laws. According to Ede at al. (2011), land decrees are what is in place in Nigeria, which gives the autonomous right of urban land ownership to the Governor of the State according to 1978 Land Use Act. Therefore, the land that communities' thought is their inheritance is constitutional government lands and can't be objective if the government wants to use it, they can take it at will. According to Kuma (2017), the existing land policy has a significant impact on housing, and it is one of the factors that impede development. Furthermore,

another prevailing issue is the distortion of the urban development master plan, on the initial plan integrated BRT to address the traffic congestion problem in the state, but monorail was rather implemented, which is rather a more expensive infrastructural investment and unsustainable option.

Conversely, lack of appropriate management structure is one of the factors affecting the sustainability of the case project. Again, in a situation like this, one cannot ignore the fact that some technical skills and technology is required to achieve success. However, there is a need to emphasise the importance of the educational development of urban dwellings to address the issue of urban illiteracy and poverty. Amongst the designated project sites, some of them are categorised to be Federal projects, under such circumstances, what is the economic viability of the project to the residents? Projects like airport and seaports expansion are capital projects that can't be undertaken by the state government, which discredits the authenticity of the urban development plan.

Predominately, sustainable urban development is increasingly being achieved in the developed West, but it is an unachievable ambition, especially in cities Nigeria. The reason for such gap is still unidentified; however, it has been identified that African cities adopt western strategies in their urban development plan, but the challenge remains that they are implementing strategies that do not fit the dynamics of African urban area. Cities in Africa are different in how they are geographically situated. In contrast to the concentric model, cities in Nigeria are integrated with rural areas, neighbouring states and in some cases, other countries. This kind of geographical positioning is a major factor that impedes the development of urban areas in Nigeria. As seen in this case study, some of the communities' shares boundaries with Imo State, Abia State and Akwa Ibom State, it emerged in the interview that the projects in their communities have increased the number of people migrating from those state into their villages. Such migration has significantly affected the culture of the people, the crime rate has increased, and they are socially deprived as a result.

Thomas Robert Malthus pointed out in Essay of the Principle of Population (1798) the issue of population growth in African cities are predominately caused by unregulated migration, directly associated with a growing human population and limited natural resources. Africa as a continent is rich and embedded with numerous natural resources, but while many developed countries exploit her wealth, Africans live in impoverished conditions with

increasing poverty level (Akerele et al., 2012), people depending on aids, and degraded natural environment. There is a lack of everything thing, including the natural capital they have as their inheritance. Despite these prevailing issues, urban areas still strive to succeed in developing their infrastructure, but the major challenge is that sub-Sahara African countries are still reliant on the west for technical capabilities and technology, which impedes sustainable development.

As identified in this investigation, all aspects of the urban infrastructure are completely in bad conditions; from housing, education, roads, transportation, health services, waste management, commercial activities, security, water, and electricity. Factually, a city that lacks basic infrastructural developments should not be classified as an ultra-modern city. Invariably, these cities are towns, and it will take a substantial number of years for it to complete the process of modernisation or urbanism. But that is the distinct difference in urbanisation in African, and cities evolve without completing the metamorphosis of typical European or American cities. Hence, the argument that Africa cities are under unnecessary pressure to be like cities that are more advanced than they are. It is imperative to point out that a majority of Sustainable Development goals are unachievable in typical African cities.

In developed countries, policies are put in place to cope with the challenges of housing, in sub-Sahara African cities people buy and build their houses, there is no provision for social housing or support from the government. In light of this, it is inappropriate to have the same level of expectation for cities in Africa. As David Harvey pointed out in his book justice, Nature, and that Geography of Difference; he defined how challenging housing issues are in African cities and made an emphatic statement "*places in the city get red-line for mortgage and finance, the people who live in them get written off as basket-case*" (Harvey, 1996).

In transportation, cities in Africa are still struggling to figure out how to structure a workable system and how to manage it. While in developed countries, there are several structures across sectors to improve their transport infrastructures, and adopting innovative measures to make their transportation system more effective, efficient and sustainable. It is important to note that the gap is wide and it doesn't seem to be a gap that will be bridged anytime in the nearest future, especially when Africa cities are still being used as technology dump grounds. Cities being used as dump grounds impedes development because by the time these

technologies get to African cities, they have used up the usefulness and potential have nothing to offer than becoming waste in the shortest time possible, which eventually create pollution. The waste will later be a source of carbon emission, dumped in the water or landfill.

The observation and findings are useful for preliminary assessments of factors responsible for urban decay and unsustainable infrastructural developments in Nigeria, which have significantly hindered all level of development in emerging cities. As identified by Fenske (2010) areas that are landlocked are at a disadvantage in considering infrastructural development, especially for functional aspects like transportation and trade. Furthermore, the concept of a 'conjoined rural-urban' area emerged to be one of the factors responsible for the unsustainability of the project. A conjoined rural-urban development in this context is referred to as settlements that are integrated into the Port Harcourt city with common geographical boundaries, languages, culture, and belief system but have variation in land and water use.

7.7. Chapter Summary

The findings of the study were elaborately discussed, highlighting some of the identified reoccurring 16 themes as factors hindering the sustainable urban development of the Greater Port Harcourt City. Adopting a qualitative research process enabled the emergence of themes that were critically analysed to justify the dynamics of African urban areas. The thematic analysis enriched the research findings, and it is also, vital to mentions that some stakeholders found the entire process therapeutic as they were able to talk about their fears and expressed concerns.

CHAPTER 8: CONCLUSIONS AND RECOMMENDATIONS

8.1. Introduction

This chapter presents a comprehensive summary of the entire work; it discusses the contributions to knowledge, contribution to research gaps, work accomplished based on the research objectives, the implication of the study, recommendation, limitation of the research and proposes areas for future research. The study examined the situation of the Greater Port Harcourt City project and provided insight to some of the dynamic challenges of African cities by focusing on three core concepts 'Urban Decay', Sustainable Project Management' and 'Sustainable Urban Development'.

In the introduction, these gaps in the literature were identified:

- There is a gap in the literature on sustainable urban development in African cities (Koglin, 2009), particularly on factors hinder sustainable urban development in sub-Sahara African cities.
- There is a gap in the literature that addresses how sustainability can be integrated into the project management processes for African urban development.
- There is a gap in the literature of African urban peripheries, no research has not considered how they develop, what parameters of the urban boundary should be considered in a development plan, and what are the indictive sustainability components of the urban-rural cities.

The conclusion will also explain how the project finding have been in addressing these gaps in knowledge. It was identified that the existing literature does not address the challenges of Sub-Sahara African cities. Therefore, this work presents an insightful perspective of the subject matter and how it relates to a Sub-Shara African city. It was also identified that some of the common issues hindering African cities from developing sustainably are issues such as mindset, institutional and educational under-development which result in a lack of understanding the dynamics of infrastructural development models and frameworks. These findings were identified through the use of qualitative research methods which investigated the reasons why the Greater Port Harcourt City Development project was being disrupted and perceived to be unsustainable.

8.2. Contributions to Knowledge

This research has made significant contributions to knowledge in urban development studies, by identifying a fundamental problem in the Models used to development of African cities.

- Based on the reading and understanding of urban development and project management works of literature, the author developed and tested a sustainable urban development model in the light of the findings from the Great Port Harcourt City Development project.

- The author developed and applied the disaggregated model to identify the sustainability priorities for the indigenous communities who are being affected by the Great Port Harcourt City development project. The disaggregated model was developed to clarify the contradiction of the Western perspective of sustainability and what is understood as sustainability to people in developing countries. It is also a useful tool to understand stakeholder perspectives of sustainability and communicate their sustainability priorities to urban development designers and planners.

- This research provided an insight that urban development models of developed countries in the West cannot be adopted in Africa countries; this was identified from the findings of this study and the evidence of other Africa cities that are facing a similar challenge of urban infrastructural decay, poverty and illiteracy. African countries have not undergone a full process of urbanisation as the developed West, and therefore, Western urban development models are a misfit to be adopted in developing African cities. According to Morris and Fessehaie (2014), industrialisation in African is weak and inconsistent because manufacturing is mainly on consumable goods, not on technological advancement. The slow process of urbanisation explains why African urban areas are decaying rapidly, not because there are no developments projects, but the failure that emerges from adopting unsuitable strategies.

- It was also identified that African cities are predominantly employing strategies that are not standardised by any regulatory or professional body. The lack of

standardisation impede development, and unverified strategies/approaches are implemented in urban development projects even when they contribute to the failure of urban infrastructural projects, they never get investigated to understand the factors responsible. The features and layout of Models like the Concentric and Hoyt sector Models conflict with the different layers of Africa cities; typically, the outer layers are classified as urban peripheries, but in Africa, they are mostly rural areas. The fact remains that there exists a considerable conflict of interest between urban-rural development, and there is no clear distinction of the peri-urban regions. If the adoption of traditional urban development models is not reconsidered, African urban areas will continue to decay unprecedentedly. From the findings of the research, it was evident that, although the indigenous people of the case study locate wanted development, they also wanted to retain their right of land lordship, their community values, traditional beliefs, and the culture of their local communities respectively. It was highlighted that over time, urban development would profoundly make rural areas lose their cultural values to urbanisation, thus the resistance.

Other contributions to knowledge are embedded in the framework and the approach of the investigation, therefore, knowledge has been added in the following areas:

- Factors hindering sustainable urban development in an emerging economy was identified from multi-level stakeholders' perspectives, which is the only way inclusivity can be achieved in such an urban development project. According to Tabane et al. (2016), human and social inclusion are essential drivers for successful urban development.
- This study is the first to have a holistic view of sustainable urban development projects in an emerging economy from a project management perspective and identifying a conjoined rural-urban development which is entirely different from the structured urban peripheries of developed countries.
- A new area in literature 'integrated sustainable project management' has emerged to address areas of lack in urban development projects in an emerging economy. The study has also enabled the development of an impact checklist to embed sustainability principle and recognise the areas of high impact. The study has also developed a framework to sustainably manage projects, tailored to mitigate social

disruptions based on integrating sustainability principles in urban development projects.

8.3. Contribution to Research Gap(s)

- There is a gap in the literature on sustainable urban development in African cities (Koglin, 2009), particularly on factors hinder sustainable urban development in sub-Sahara African cities.

  The research has contributed to the understanding that urban development scholars have not paid attention to incorporating sustainability to urban development project because the emphasis is being made of essential infrastructural development, thereby underestimating the impact of continuous unsustainable urban develop.

- There is a gap in the literature that addresses how sustainability can be integrated into the project management processes for African urban development.

  The research has contributed to filling the gap in the literature of sustainable project management, particularly in urban development projects. It has also contributed to the understanding that African urban development scholars, designers and planners have overlooked the importance of adopting a structured project management process in developing urban areas, thereby undermining a typical problem across African urban areas, which is profoundly based on their attitude towards maintenance.

- The is a gap in the literature of African urban peripheries, how they develop and what parameters of the urban periphery should be considered in a development plan, and what are the sustainability components to be considered in urban-rural cities.

  The research has also contributed to the understanding that African urban are dynamic in several aspects, mainly, in how the urban areas are surrounded with rural areas (urban peripheries), and how such layout makes it difficult to measure the parameters of urban areas in Africa. The undefined structure of the metropolitan area predominately creates a challenge in developing urban sustainability indicators.

8.4. Work Accomplished Based on Research Objectives

This section presents the details of the accomplished work based on the three research objectives:

Objective 1:

To investigate how the Greater Port Harcourt City Development Project was initiated, designed and managed.

In undertaking this study, the empirical findings revealed that the feasibility study conducted for the Greater Port Harcourt City Development project was inadequate; it lacked viability, local content, and stakeholders inclusion. The findings from the empirical study also gave insight that the project sponsors lacked a detailed understanding of the concept of 'Sustainable Urban Development' as it was revealed that there were no 'Key Performance Indicators' (KPIs). The findings of the observation also revealed that the community stakeholders have sentimental attachments to their urban and rural spaces, and it is a focal point from where they derive livelihood. It was also revealed that across the different communities, there were strong cultural, traditional beliefs, and family values. The sort of commitments they had to their communities made it difficult to move out because of the development. These explain why the community stakeholders were disrupting the projects. However, they want the development, but only if it would not disrupt their lives by requiring them to move away from their home town and villages.

Furthermore, an in-depth study of the data that emerged revealed that projects are awarded based on nepotism, which fundamentally is a common feature of corruption, and exhibited by political elects. The findings identified certain behavioural traits and attitude, and the stakeholders demonstrated that they had a mindset about a government-funded project. Conversely, it was revealed that regardless of whether or not the project sponsors utilise an inclusive stakeholders approach of urban development, the urban development projects would have still been disrupted. Although, it is said that, sustainable urban development can only be achieved if stakeholders engagement is encouraged; however, the fundamental issue in this case study was the that 'mindset' as illustrated below:

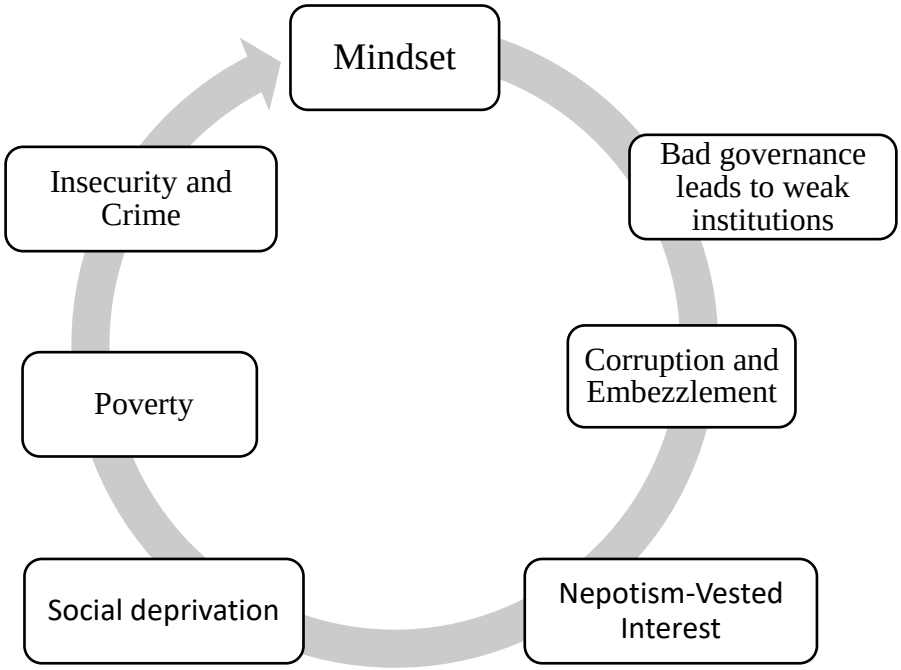

Figure 8.1 Issues related to Mindset

(Source: Author)

Objective 2:

To identify and examine the factors hindering the sustainability component of the Greater Port Harcourt City Development Project.

After careful interpretation of the research data, the study emerged with the following 16 themes as some of the factors hindering the sustainability of the Greater Port Harcourt City Development project. In examining the 16 themes that emerged, it was identified that they complexly intertwined with each other because they cut across different meta themes, which make the disaggregation of the three overlapping circle model of sustainability relevant. It is imperative to understand which of the three dimensions overweigh the other and how can the stakeholders perspective of sustainability be prioritised.

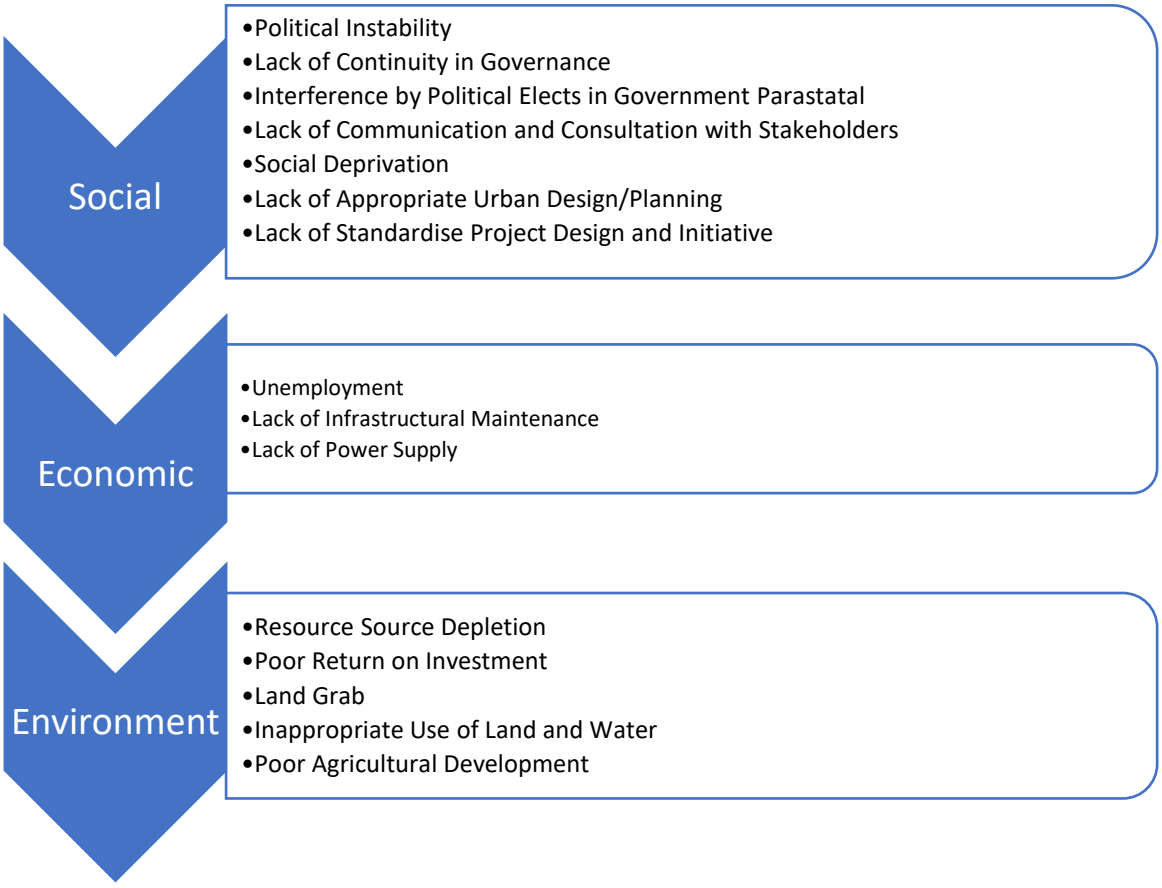

Figure 8.2 Themes from Interviews

(Source: Author)

Objective 3:

Recommend best practices to practitioners, and proposed an adaptable urban development strategy to policymakers.

Firstly, the study has established that prevailing urban development theories, models and metrics cannot be implemented in Africa cities. The models are predominantly modelled for cities in developed countries like the United Kingdom and the United States of America. The models do not take into consideration that African urban areas are dynamic, and there are underlining factors that particularly hinders development in African cities, as identified in this study. However, the findings of this study revealed that the urban development project in Port Harcourt did not adhere to any due diligence. Hence there was no structured plan of how the project will be managed through its life cycle.

It was identified in the study that a crucial aspect of the project was ignored; the feasibility study, which is a core success criterion was not conducted in the initiation phase of the project. The importance of proper feasibility was underestimated; an assessment that could have provided clear viability report on land/water use was neglected entirely because of the absence of a project management regulatory body. Similarly, it lacked local content in the design as the urban development was designed by a South African consultant who does not understand the complex challenges of the project locations. Furthermore, the design phase had no prescribed compliance, and it lacked adequate management procedures both on the part of the project sponsors and the various interdisciplinary practitioners.

Factors like mind-set, language, geography, demography, culture, diverse ethnicity, traditional beliefs, corruption, nepotism, exclusion of social capital have enormous influences on how Africans urban areas develop. It is also vital to mention that those factors significantly influence why the different strategies and models' malfunctions. Furthermore, it is imperative to say that most African urban areas are still in the bondage of their colonial experience, and regardless of the approaches adopted to redevelop the urban areas, the cities are always confronted with the aftermath of colonialism. Port Harcourt is an example of cities in Nigeria where the mind-set of people impedes development, bad governance weakens institutional capability, and the resultant effect is corruption at all levels.

The study also enabled the identification of factors hindering the sustainable development of cities in emerging economies through qualitative research studies. Thereby, being the first to address sustainable project management in Africa urban places from a stakeholders' perspectives. Despite a series of arguments around stakeholders' 'power', and 'interest', it is essential to mention that the powers of stakeholders cannot be underestimated, especially within their natural environment. Stakeholders exercise a prominent level of control and interest when it comes to urban development as they are identified to be strong determinants when it comes to the success and failure factors of urban development projects. Furthermore, in a politically unstable state, stakeholders are forced to adopt several strategies, including a disruptive measure to ensure that the people in authority listen to their complaints. This approach eventually made the government to pay attention to them, and a proper channel of stakeholders' consultation is now in place to communicate the issues emerging from the projects.

The study paved the way to understand the importance of social actors in an urban development project through qualitative research that enabled an in-depth understanding of what the issues are and provide answers to questions that would have been impossible with a quantitative research method. The importance of qualitative research was apparent in this study; it was identified that the more a researcher engages with research participants either through interviews or observation, the more the phenomenon of the study was understood. The ontology of the research underpins that social actors influence the socially constructed environment. In this study, the importance of using the case study as a method of inquiry was recognised as it highlighted how social interaction enforces in-depth understanding of a subject matter and how the behaviour in different situations based on their perception.

The study enabled a holistic review of the current issues of urban development in emerging economies, and the research enabled the creation of an alternative approach for both policymakers and practitioners interested in urban development projects. The model provides a detailed procedure of how critical elements of urban development should be carried out by submitting a phase to phase management procedure that is embedded with sustainability principles. Therefore, there is a need for public institutions to collectively review policies that are associated to urban development and jointly bridge the

implementation gaps across the different institutions like regional planning and development, transport, housing, environment, water and power.

The analysis of the research clearly shows that stakeholders oppose the top-down approach to managing urban infrastructural development projects. To create synergies, stakeholders need to understand the benefits of the project, in terms of its effectiveness and efficiency. Stakeholders need to be clarified on the advantages of green space, walkability, energy-efficient houses, local economic growth and the strength of integrated community living. Therefore, a fundamental implication of this type of research work is that it gives stakeholders durable powers to act when things are not aligned with their expectations. On the other hand, policymakers will be subjected to incorporated stakeholders as part of their policy generation committee. Policies or institutional frameworks should be developed based on social needs, and it should be based on one-dimensional thinking of government alone.

While urban development projects physical changes the world, and the perception of the people in it, the factors hindering sustainable urban development are issues that can be addressed by policymakers in different institutions. Policymakers can enforce simple professional checks based on sustainability principles and also implement policy-driven frameworks. Tabane et al. (2016) also emphasize the need for policy implementation to address some of the challenges of urban development issues. The frameworks will change the way services are managed and how infrastructure projects are designed and built by engaging stakeholders across different phases of the project. Urban development in African cities is dysfunctional because they solely depend on unregulated project management approaches that don’t promote or check sustainability indicators. Therefore, there is a need to invest in innovation, technology, knowledge transfer networks and adherence to best practices by different urban development practitioners. It is essential to develop frameworks that will sensitise people about the benefits interconnectivity, and how far it goes in determining the development of a sustainable urban area. Over time, developers tend to underestimate the strength of stakeholders, ignoring the fact that they make and stall the progress of a city.

8.5. The Review of the Case Study

The study adopted a case study approach that enabled an in-depth study of the project documentation, the physical sites of the projects and the stakeholders of the case study location. This approach was selected to allow the utilisation of multi-level stakeholders' perception of understanding the challenges of the urban development project. A total of 52 stakeholders were drawn from different categories of stakeholders to allow an all-encompassing level of engagement, and their opinions were sought through a semi-structured face-to-face interview, non-participant project site observation and document analysis. The themes that emerged from the different set of data provided a dynamic collection of information that systematically provided facts to why the urban development project is being challenged, and why Sub-Shara Africa cities are challenged with urban decay.

The findings of the study indicate that the Great Port Harcourt City Development project falls short of being classified as a sustainably managed project. Based on the findings from the document analysis, the project does not have clear sustainability indicators that could stir the project towards attaining sustainable urban development. However, the results have revealed that the case study project was not being managed sustainably as it lacks standardised project management practices. The findings of the research have enabled further development of the second model to incorporate the influence of stakeholders at all phase of the project.

As identified in the study, the lack of stakeholders involvement was a predominant factor for the disruption of the urban development project, which is agreeably a fundamental failure factor. The view of incorporating stakeholders into urban development was emphasised by Scott (2013), where he categorically specified the danger of social exclusion. Urban development projects are hinged on social inclusion; hence it is imperative to align the requirement of the projects with stakeholders expectations.

It was also identified that projects that are financed by the government often lack the characteristics of sustainable urban development. Lack of clearly defined "Key Performance Indicators" was also revealed as one of the challenges. It was revealed that the idea of transforming Port Harcourt City back to its past glory of being the Garden City of Nigeria

was meant to gain recognition and embezzle funds. The study revealed that there was a need to redevelop dilapidated infrastructures, but the approach of achieving that was unrealistic in all ramifications. There were clear indications that some of the existing infrastructures were completely worn-out, and they had the potential to be refurbished and put back to use, but such options were not considered.

All aspects of the urban development portrayed characteristics of an unsustainable urban area just like most African cities with high density, high traffic congestion, lack of housing, poor sanitation, poor education and health services. The findings emerged with the concept of 'conjoined rural-urban development', which are villages that transform into an urban area without recognising the effect on the culture and belief system of the inhabitants. From the study, it was identified that most of the resistance of the project came from stakeholders that are not wanting to lose their cultural values and land inheritance. As emphasised by Ghatak and Mookherjee (2014) land being taken over for urban development project often create problems as the economic value of the land is never adequately compensated. They further pointed out that issues around compensation accounts for the widespread social and political tension as the entire process lacks transparency.

Also, from the findings of the study, it can be concluded that the mindset of stakeholders plays a fundamental role in hindering sustainable urban development through a strong network within the communities. It was pointed out that members of the communities agree on how to disrupt government projects if it is not in their best interest. This kind of attitude is an example of what is portrayed in how they live in urban areas, and it reflects on how dysfunctional the urban areas become overtime. It was discovered that urban decay is a prominent feature of Africa cities; it was also recognised that industrialisation and colonisation played a significant role in the multifaceted challenges of Africa cities. Predominately, it was known that most Sub-Sahara African towns are based on urban development models of developed countries like United States of American and United Kingdom, and they are unadoptable because of the dynamics of African cities. It was also discovered that prevailing urban development models like the Burgess Model and Compact City Model are not working for African cities because they do not incorporate the social capital and cultural values of the African people.

Furthermore, it was discovered that urban development models that do not incorporate the dynamics of a typical African city, which are centric on the social capital and culture values are unadoptable. Attempts to implements these models and approaches automatically disrupts the functionalities of the city for its inhabitants. The disruption of the Greater Port Harcourt City Development project was based on the disturbance caused to their social setting, cultural values and traditional belief system. Port Harcourt City is an emerging socio-economy city in Nigeria; hence, it was essential to examine how such urban development can be made sustainable, while the projects are still at its infancy stage. From the findings of the research, it was recognised that adopting an approach that considers the stakeholders is the ultimate way to make the project sustainable. Such an approach will swiftly gain stakeholders acceptance and corporation through the different phases of urban development.

It can also be concluded that the lack of an established methodological approach in managing the projects are fundamental reasons why urban development is perceived to be unsustainable. Furthermore, conclusions were made that stakeholders have a negative perception of primarily government-funded projects. It was also, revealed that stakeholders, particularly, community stakeholders, would prefer monetary incentives rather than having a developmental project undertaken. Profoundly, this is associated with that lack of trust they have for the government, as indicated that there is always an underlying thought that urban development projects are politically oriented, and the only aim is a means to embezzle funds.

The analysis of the data indicated that the knowledge and understanding of stakeholders on urban development are flawed by accumulated years of underdevelopment. The stakeholders' perception of urban development is institutional development, which has failed due to bad governance. As revealed in the study, stakeholders are providers of their basic amenities, hence hearing about sustainable urban development seemed like other fraudulent tactics of politicians to misuse government funds. It was revealed that stakeholders were lured into supporting a government-funded project in the past like the Karibi Whyte Specialist hospital, which was later discovered to be another trick, thus the lack of trust in the government. In another discovery, there have been several attempts to build 'Ultra-Modern' markets, but those projects had also turned out to be substandard when compared to the amounts declared for the project.

The findings also revealed that community stakeholders are an integral part of urban development; hence, their needs are to be considered. Failure to incorporate stakeholders' needs or conduct a requirement analysis on any urban development dramatically derails the conceptualisation of the projects. The design of the urban development ignored the strengths, power, and the legitimacy of the stakeholders. Predominately, any urban development that excludes stakeholders will undoubtedly face a heightened level of disruption. In this case study, the disruption of projects was triggered by stakeholders being isolated from the initiation and design phase of urban development. Thus, they oppose whatever aspect of the project they think would not benefit them. The issue of corruption cannot be overemphasised in this context because it boils down to the mindset problem. Corruption amongst other topics like nepotism is a long dragging problem in/around African and globally, but it is a particular issue in Africa, where people in power deliberately enrich themselves and deprive the masses of necessary infrastructure or amenities. The way and manner corruption are handled in Africa, Asia and in the West are significantly different, and it is essential to bear that in mind when addressing issues that concern bribery in Africa.

On the other hand, the stakeholders are of the view that the government [politicians] takes them for granted; hence they don't trust the authenticity and the feasibility of the urban development. Predominately, urban development projects that are social exclusively are recognised to have failed. It is crucial to allow stakeholders consultations through the different phase of any infrastructural development project. Conversely, this will potentially mitigate the issues of nepotism and abandonment of projects, which typical feature of infrastructural development with African. Unjustifiable award of contracts was revealed as a means to settle individuals who support politician into powered, and a way to distribute money to friend and family regardless of the expertise required for the project. Therefore, the question arises 'what the criteria to awarded urban development projects are?

The study also revealed that there is no integration amongst the different ministries that are meant to be part of the urban development. It was highlighted that the various departments in the ministry work in isolation, and such seclusions are predominately some of the reasons why projects of this nature fail in African cities. It was also, revealed that the involvement of politically appointed commissioners had heightened the instability in the ministries. It was pointed out that these commissioners' award project contracts without undergoing due

diligence, and this significantly affects the success of the project. For an urban development project to be successful, all aspects of the projects must be undertaken by professionals who have a strong understanding of what ought to be done either technical or through policy implementation.

It was revealed in this study that urban peripheries are wholly neglected, thereby boycotting the stakeholders of some communities. Urban peripheries in most African cities are rural areas, and it is essential to develop a model that will holistically address both urban and rural developments. Implementing urban development modelling that completely isolates the rural areas in a developmental plan distorts the functionalities of the rural areas in a broader context, and it fundamentally weakens the strength of unregulated development. Therefore, integrating a model that promotes sustainable urban development through an integrated project management model can provide a sensible approach that will incorporate stakeholders and at the same time, integrate sustainability principles.

8.6. The Implication of the Study

While urban development projects physical change the world, and the perception of the people that live in the cities. The factors hindering sustainable urban development are issues that can be addressed by policymakers in different institutions by merely establishing policy-driven frameworks. Frameworks that will change the way services and infrastructures are initiated, designed, built and managed. There is a need to change the urban development models and approaches that are currently dysfunctional to a bespoke approach that integrates social capital.

For urban development investors and sponsors, there is a need to invest in innovation, technology, and knowledge transfer networks. There is also a need to enforce legislation for different urban development practitioners and ensure best practices are followed strictly. It is essential to develop frameworks that will sensitise people about the benefits of collaboratory working in developing urban areas, and how far it goes in determining sustainability. Over time, developers tend to underestimate the strength of stakeholders, ignoring the fact that they can make and destroy the process of sustainably developing a city.

The analysis of the research clearly shows that stakeholders oppose the top-down approach to managing urban infrastructural development projects. Incorporating stakeholders through the life cycle of the project will create synergy and ensure they understand the benefits of the project in terms of its effectiveness and efficiency. Stakeholders need to be clarified on the social indicators of the project by establishing the advantages of green space, walkability, energy-efficient houses, local economic growth and the strength of integrated community living.

Finally, the fundamental implication of this type of research is that it gives stakeholders powers to act when things are not aligned with their expectations. On the other hand, policymakers will be subjected to incorporating stakeholders as part of their policy generation committee. Policies or institutional frameworks need to be developed based on social needs, and they should not be based on one-dimensional thinking of government alone.

8.7. Recommendations

Based on the findings of this research, I recommend that the following measures should be taken to mitigate the disruption caused to the Greater Port Harcourt City Development because urban development cannot be done successfully without incorporating stakeholders' interest, proper feasibility study, and sustainable project management initiatives.

- According to Morris and Fessehaie (2014), there is a need for public institutions to collectively review urban infrastructural development policies and restructure how urban development projects are initiated, designed and managed across different sectors. Urban development should be focused on generating sustainable communities. For the participant, such urban development projects should be linkage for economic growth and job opportunities.

- Project sponsors should adopt a bottom-up approach to management, to holistically engage community stakeholders through the life cycle of urban development. According to Li and Chan (2017), no urban development approach has ever been successful without deploying appropriate channels of management.

- The project sponsors should endeavour to conduct a periodic feasibility study on the urban development to ascertain stakeholders' needs, their interest and their perception. The Greater Port Harcourt City Development project is a long-term project of 50 years; hence, it is recommended that at least every five years, stakeholders' analysis should be reassessed to incorporate various factors that could emerge.

- I also recommend that policymakers should restructure urban development policies, set implementation standards, compliance, and regulations, and ensure it is enforced in law. Policy implementation and enforcement is a fundamental problem in Nigeria, which is a principal feature of corruption.

- At this rate of urbanisation in Nigeria, the government needs to develop stringent measures to effectively implement Public-Private Partnership across different sectors like transport, housing and health service.
- To improve the quality of life in the urban area, I suggest that there is a need for the government to address the issues of environmental pollution immediately as it is increasingly threatening the lives of people both in the urban and rural areas. The Analytical Hierarchy Process (AHP) should be considered to evaluate the performance of urban development in multiple dimensions (Shang and Su, 2009).

- To achieve sustainable urban development, I strongly recommend that there should be institutional integration between the Greater Port Harcourt City Development Agency and other associated ministries involved in the entire development process like Ministry of Urban Development and Physical Planning, Sustainable Development Agency, Ministry of Works, Ministry of Transport, Ministry of Power, Ministry of Health, Ministry of Education, Ministry of Housing, Ministry of Environment and Ministry of Water Resources.

- Based on the findings of the study, I also, recommend that regulatory bodies of different practitioners should develop best practices to adhere to as emphasised by Greiman and Warburton (2009), and put a watch on the activities of the diverse urban development institutions and contractors.

- The Compact City: A model for Sustainable Urban Development could be a reasonable model to adopt as the principles are centric on stakeholders. The four principles: Strong supportive communities, high-quality living environment, a region that is easy to get around, and protection of the coast and surrounding natural environment (Auckland Regional Growth Forum, 1999).

- The model below illustrates the proposed structure of what should be done in the Greater Port Harcourt City Development. The model is multi-functional and adoptable by multi-level stakeholders. For sponsors, ideally, when a project location is selected, the stakeholders of the chosen communities are to be consulted to discuss the project idea, which will present the details of the project including the expected

benefits, and an impact report. If the project idea is not considered viable by the stakeholders, then it should be a decline, otherwise, proceed to carry out a land survey and detailed environmental assessment. The stakeholders-centric model is adoptable by different project practitioners; it is designed to encourage all professionals of urban development to carry out preliminary evaluations before the project gets into an advanced stage. For practitioners, utilising a uniform tool will bring about transparency and consistency across the broad, and the stakeholders will have a clear understanding of what is applicable; where; when, and recognise risk components as they emerge across selected project locations. It will also facilitate and ease communication between stakeholders and project practitioners. Presently, the project does not have any management tool or model. Therefore, this will be a relevant and timely tool to explore and to adapt as the project proceeds into its maturity.

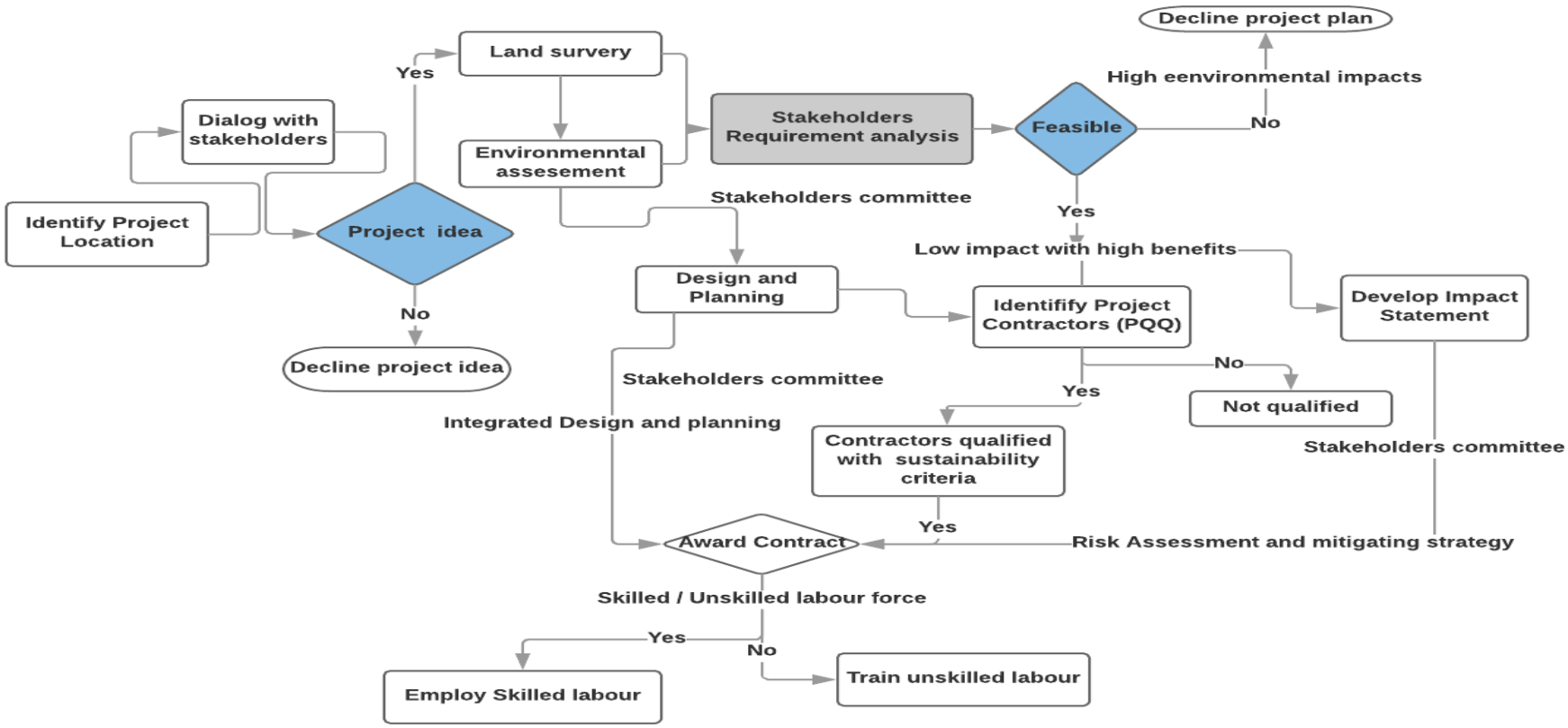

Figure 8.3 Urban Development Stakeholders-Centric Model

(Source: Author)

8.8. Limitations of the Study

Although this research has fulfilled its set aims and objectives, it is essential to note that a doctoral study of such nature can be overwhelmingly stressful, especially with such a highly sensitive case study. The process was antagonistic to some degree due to some interruption, change in government that resulted in the initial project board being dissolved, and the sensitivity of the case project. To that regards, it was of utmost importance, that I had a good understanding of the indigenous people of the case location, their attitude, and how they behaviour concerning accommodating research study. Another aspect that drew a considerable sense of limitation is the scope of the research, the parameters of the study were limited, and factually, the study would have been more enriching without those limitations.

The main limitations of this study are listed below:

- The research was focused on one state out of the thirty-six states in Nigeria, it could have been beneficial to extend the research to other similar projects going on in Lagos State, but time was a factor,
- It could have been beneficial to explore what is applicable in other countries within West Africa, regarding conducting a comparative study with a country like Lagos State, Nigeria or Accra, Ghana
- The research methodology adopted a case study that used qualitative data collection techniques. The research could have benefited from adopting multiple case studies, other research methods with a broader choice of techniques. In that regards, it could have been beneficial to adopt a mixed-method (qualitative and quantitative) to understand what the numerical perspective of the research would have been. The model will guide the sequence of activities to be carried out, and it will provide a robust urban development management framework. Finally, it is crucial that before any urban development project is executed, all preliminary stages must be duly followed, and agreed upon by all stakeholders. The model is designed in a way that it is specifically tailored to encompass the entire project life cycle and integrates the overlapping circle model of sustainability such that it shows strategic points of decision-making as shown in the figure below.

- The data collection process was tedious, yet it provides an in-depth understanding that cannot be theoretically explained. The findings revealed that there are areas within one of the communities that cannot be developed due to their traditional belief. Participant maintained that the land is sacred, and the deity protects them from evil; therefore, the land cannot be utilised for any development project. The indigenous people believe that if any project is done on the land outside their wish, there will be a constant loss of life. It kept me wondering how such beliefs and practice can limit people to that extent in this 21st century. There is a significant difference between the west and an Africa country, which is unique to them. Africa country their traditional beliefs strong even if it the belief impedes development.

- This study adopted a thematic approach, which enabled the identification of dynamic and diverse issues such as ethnicity, many languages, conflicting interest in religion, and traditional beliefs and affiliations. Although these challenges are more or less typical in African urban areas, they hinder sustainable development goals, and it is fundamental to understand that African urban areas cannot be sustainable except measures are taken to initiate a mindset shift. A mindset shift could potentially change how capital is created and consumed within the urban area. According to the findings of the study, most of the general issues are mindset, as most of the community members have conceived it the mind that the projects are politically oriented and nothing good ever comes out of them. A large number of the people are resistant to change, yes, they want development, but they don't want to be a part of the process to achieve it. A lack of trust for politicians mostly drives their decisions and actions, and they perceive every initiative as deceit and exploitation.

8.9. Suggestion for Future Research

This study has made some additions to the body of knowledge on sustainable urban development in an emerging economy.

- Based on the findings of this study, future research must be conducted to address areas that were outside the scope of this research. Concretely, further research on the following areas can potentially aid in finding a long-term solution to urban development issues in African cities. The findings of this research provided insight that current urban development models are unadoptable and cannot be implemented in African cities. It is fundament that research studies be conducted to investigate further how to mitigate against the way African cities imitate urban development of the developed West.

- In the future, a similar study should be conducted to analyse and evaluate the functionality of different urban development models and how they fit into different sectors in emerging economies. The research should focus on identifying the theoretical perspectives underpinnings of urban development models and how feasible they are to be implemented in African cities. The study should holistically consider the implications of invading rural areas in the process of developing urban areas. The key focus should be what will be the impact or consequences of displacing the indigenous people in the process of developing the conjoined rural-urban areas by investigating how they are being catered for, and how they cope with the rate and level of urbanisation.

- A study is required to investigate how the findings of this study can be used to develop a tool to encourage a mindset change and how infrastructural developmental plans can be embraced in Nigeria. The study should also consider ranking the 16 identified factors with quantitative research. The study should also consider conducting a Cost-Benefit Analysis to ascertain the current cost to the work completed.

- It will be of utmost importance to investigate the feasibility of emerging African cities attaining sustainability, looking beyond Agenda 21 of Sustainable Development Goals. The study should consider how factors like urban space consumption, urban inheritance, and urban-rural cultural disrupt are addressed.

- A study that will specifically address urban development in the Africa context should be conducted as there are serval urban development studies that have neglected the dynamics of Africa cities and how their infrastructural development plans are considered. The research should focus on how workable the compact city development model will be in African cities, where there is no healthy development, as seen in the west.

- Finally, an empirical study should be conducted to investigate what approaches are being adopted by the Transit-Oriented Development (TOD), and how they manage the stakeholders across their different urban development projects. The Transit-Oriented Development has been considered successful in transforming slum areas to magnificently sustainable communities in the United States, Canada, Asian, and recently Addis Ababa, Ethiopia. They utilised 7 Principles: Quality Public Transit, Active Transport, Car Use Management, Mixed-Use Neighbourhoods with Efficient Buildings, Neighbourhood Centres and Vibrant Ground Floors, Public Spaces, Community Participation and Collective identity.

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APPENDICES

Appendix 1: Interview Guide (Project Sponsors)

Interview Questions (Project Sponsors: Government Personnel and Project Board Members)

Informal interviews with open-ended questions. Estimated time for an interview (45 minutes - 1 Hour).

Participants' Name (Only for researcher's identification):
Organisation:
Position: Role within the project:

1. What is the aim of the project, and what is your general opinion about the project?

2. What were the sustainability considerations during the project conception and initiation phases?

3. Are there measurable standards set by regulatory bodies that such urban renewal projects must meet?

4. What are the standards in the following areas of sustainability?

- Energy- renewable, recyclable and generation?
- Waste- generation during the construction phase, disposal during construction and general waste considerations for the life span of the project?
- Carbon footprint- what level of carbon footprints with the project generate? Are there any strategies for the reduction of carbon footprints?
- Transportation- was there a feasibility study carried out before the project was initiated? What are the strategies incorporated? e.g. Bicycles, electricity
- Water-What sustainable measures of water generation, harvesting natural water and recycling have been incorporated into the project?
- Built Environment- what percentage of the available project area is built up?

5. What maintenance strategies in place for each phase of the project?

6. Who are the stakeholders (beneficiaries) of the projects?

7. Are there any stakeholders' management strategies in place?

If yes, please, describe the ones that you have in place?

8. What is the basis of your stakeholders' engagement in the process? Were there any consultations on whom to represent the different interest group?

9. Were the stakeholders' consulted? Were they recruited to work on the project?

10. What are the foreseeable impacts of the projects?

- In terms of population growth, energy, education, food, transportation, business development, lifestyle changes and life expectancies?
- Were these factors taken into consideration during the design phase of the project?

Appendix 2: Interview Guide (Project Managers and other Practitioners)

Interview Questions (Project Managers of the different Construction companies)

Informal interviews with an open-ended question. Estimated time for an interview (45 minutes - 1 Hour).

Participants' Name (Only for researcher's identification):
Organisation: Position: Role within the project:

1. What role does your organisation have within the project as a whole?

(Major contractor or sub-contractor) and What is your general opinion about the project?

2. During the project initiation, what were the fundamental considerations for your firm?

3. Do your organisation have a sustainability policy?

4. What regulatory bodies are you governed by? What standards and other sustainability indicators have you integrated into your part of the project; in terms of the designing, planning, executing and project closure?

5. What is the process of monitoring, evaluation and subsequent award of rating? (e.g. regular inspection, material specification and quality control/ audit)

6. How do you source your materials? (Sustainable and renewal sources, local content, to reduce carbon footprints).

7. For your part of the project, did you engage with host community stakeholders?

8. In your opinion, were the stakeholder's interests adequately incorporated into the project initiation?

9. Did your practices enable the project to be executed without community resistance? 10. Can you identify internal and external factors that have influenced the outcome of the

project? Which of these are contributors to success? Which other factors are responsible for the failure/abandonment of the project or parts of the projects?

Appendix 3: Interview Guide (Community Stakeholders)

Interview Questions (Community Stakeholders)

Informal interviews with an open-ended question. Estimated time for an interview (45 minutes - 1 Hour).

Participants' Name (Only for researcher's identification):	
Organisation:	
Position:	Role within the project:

1. What is your general opinion about the project?

2. Were you consulted before the project commenced?

If yes, how were you consulted? And how do you think a broader consultation could have been made? If No, why?

3. How do you think the project will benefit you?

If yes, please explain in more details. If no, why do you think the project will not meet your needs?

4. What impact does the project have on you, your community and business?

A. At present B. In the future

5. Do you think the project could have been implemented, organised and managed differently? Please, explain how you think that could have been achieved.

6. Why do you think the project is being disrupted? Please, explain, and what are the major reasons?

7. Do you think the project would be more successful if your requirements were included from the inception of the project? Any other time?

Appendix 4: Participants' Consent Form

PARTICIPANTS' CONSENT FORM

(TO BE COMPLETED BY THE PARTICIPANT)

Dear Researcher,

<u>To be completed by people over the age of 18.</u>

This is to confirm my acceptance to participate in this study.

- I have read the information sheet about this study
- I have had an opportunity to ask questions and discuss this study
- I have received satisfactory answers to all my questions
- I have received enough information about this study
- I understand that I am free to withdraw from this study:
    - At any time (until such date as this will no longer be possible, which I have been told)
    - Without giving a reason for withdrawing.
- I understand that my research data will be used anonymously, but I am able to opt-out if I so wish. I agree to take part in this study.

Signed (participant)	Date
Name in block letters	
Signature of researcher	Date

This project is supervised by:

Dr Anne- Marie Coles University of Greenwich Systems Management and Strategy Faculty of Business University of Greenwich Park Row	Dr Athina Piterou University of Greenwich Systems Management and Strategy Faculty of Business University of Greenwich Park Row

London SE10 9LS Email: A.Coles@greenwich.ac.uk Telephone: +44(0)2083319738	London SE10 9LS Email: A.Piterou@greenwich.ac.uk Telephone: +44(0)2083318801	
Researcher's contact details (including telephone number and e-mail address): Name: Miss Molly Williamson Jack TEL: +44(0)2083319399 Email: jm14@gre.ac.uk		

Appendix 5: Participants Information Sheet

PARTICIPANT INFORMATION SHEET

Study Title: Sustainable Project Management in Urban Renewal Project: A case study on the Greater Port Harcourt City Development Project, Rivers State, Nigeria.

Researcher: Miss Molly Williamson Jack. Email address: jm14@gre.ac.uk

Dear Sir/Madam,

You are being invited to partake in an ongoing research study; you will be assisting the researcher in providing data for the study. Kindly, read the information sheets and don't hesitate to ask the researcher questions if in doubt about anything.

It is important that you read and understand what you are expected to do and be informed that you are under no obligation to participate. If you decide to support the research study by granting the researcher an interview audience, please sign the consent form attached.

Purpose of the research

This research is conducted as part of a postgraduate degree for a PhD student at the University of Greenwich, London, United Kingdom. This research is aimed at developing a framework for the sustainable management of the Greater Port Harcourt City Development Project and similar projects; in accordance with sustainable development goals, aimed at the development of urban generation projects that will benefit the present and future generations. A sustainable urban renewal project is expected to protect, preserve and promote all three dimensions of sustainability (Economic, Social and Environment).

The expected task in the engagement

The research will involve human participation, observation and document analysis. You will be engaged in a 45 minute–1-hour face-to-face interview session with the researcher. The interview will be recorded with an audio tape recorder, and hand-written notes will also be taken. In addition, the researcher has been granted permission to access project documents and, the opportunity to observe activities within the work setting.

Your Right

Participation in this project is voluntary. You are under no obligation to participate in this research, and you can also withdraw at any time.

Data Collection/ Interview

Data will be collected through a face to face interview session of at most 1hour. The researcher will arrange appointments with all participants. The researcher has produced a set of questions for the different interest groups of the project, each respondent in a group will be required respond to the set of the same questions relating to the ongoing Greater Port Harcourt City Development project, your opinions about the project will guide the researcher to develop themes that will be further analysed to draw up conclusions.

Use of information

The information you provide will be used solely for the purpose of drawing conclusions on this particular type of project and specifically in the subject area of urban sustainability.

Anonymity / Confidentiality

Your identity will remain anonymous, none of your details, including names, organisations and audio clips will be made known to the public in accordance with the Data Protection Act of 1998. All of the data in the form of audio and transcripts will be kept confidentially in an electronic password locked device. Also, be informed that throughout the data collection and analysis phases, all information gathered will be kept confidential and destroyed at the end of the project.

Contacts/ Feedback

Please, feel free to contact the project supervisors if you have any concern or enquiry.

Thank you for your anticipated corporation.

Yours Sincerely,

Dr Anne- Marie Coles	Dr Athina Piterou
University of Greenwich	University of Greenwich
Systems Management and Strategy	Systems Management and Strategy
Faculty of Business	Faculty of Business
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Molly Williamson Jack

University of Greenwich, London.

Appendix 6: Ethics Form

University Research Ethics

Committee

Application Form

APPLICATION REFERENCE:

Checklist

Name of applicant: Molly Williamson Jack	
Faculty/Directorate: Faculty of Business	
Title of research: Sustainable Project Management in Urban Renewal Projects: A Case Study on the Greater Port Harcourt City Development Project, Rivers State, Nigeria.	
These papers must be attached to this application form (please tick):	
• Participant information sheet	✓
• Participant consent form	✓
These papers may be required (tick if included):	
• Letters (to participants, parents/guardians, participating institutions)	
• Questionnaire(s) or indicative questions for interviews	✓
• Advertisement /flyer/copy of message inviting participation	
• Annex I - Drugs and medical devices	
• Annex II - Research involving the storage of human tissue	
• Annex III - Ionising radiation	

Has the form been signed? **YES**

Have any annexes been signed where necessary? **N/A**

Revised August 2015

SECTION 1: APPLICANT DETAILS

1.1 Surname: Jack Forename: Molly Williamson Title: Miss
Faculty/Directorate: Faculty of Business
University address, including Faculty Department Greenwich Campus (Mews Building), Old Royal Naval College, Park Row, London. SE10 9LS
University Tel: +44(0)2083319399 E-mail: jm14@gre.ac.uk
1.2 Are you a student? YES A member of staff? A member of staff applying as a student? Other?
Programme of study (if applicable): MPhil /PhD
If you are a higher degree student, has your research project been approved by your Faculty Research Degrees Committee? Indicate - YES
If YES, when? 14 November 2014 What is the FRDC reference number? FRDCBUS/13/M-4/4.4 If NO, why not?
1.3 What is the primary purpose of the research? (Please indicate YES or NO) • Educational qualification - YES • Internally funded research • Externally funded research (please provide details of funding)

- Other (please specify) …….....

1.4 Project supervision – give the name of the research supervisor(s) and their contact information.

Dr Anne- Marie Coles University of Greenwich Systems Management and Strategy Faculty of Business University of Greenwich Park Row London SE10 9LS Email: A.Coles@greenwich.ac.uk Telephone:	2. Dr Athina Piterou University of Greenwich Systems Management and Strategy Faculty of Business University of Greenwich Park Row London SE10 9LS Email: A.Piterou@greenwich.ac.uk Telephone: +44(0)2083318801

1.5 Details of any other co-researchers within the university

N/A

1.6 Details of any other co-researchers external to the university

N/A

1.7 Experience and qualifications – include brief experience and qualifications, only where it is relevant to this study, of:

(i) The principal investigator

Molly Williamson Jack

Qualifications: BSc, MSc

Experience: Research student, University of Greenwich

Tutorial tutor, University of Greenwich.

(ii) Any co-researchers

(iii) Any supervisors (please include this if you are a student applicant)

Dr Anne-Marie Coles

Qualifications: PhD, MSc, BSc

Experience: Employment in technical journalism.

Research Fellow then lecturer, Brunel University, Business School.

Senior Lecturer, University of Greenwich,

Faculty of Business.

Dr Athina Piterou

Qualifications: MSc, PhD

Experience: Lecturer, University of Greenwich, Business Faculty.

Visiting Fellow, University of Westminster.

1.8 Membership of professional bodies - are you or any co-researcher(s) a member of any professional or other, bodies which set (i.e. require compliance with) ethical standards of behaviour or practice such as the British Psychological Society, Nursing and Midwifery Council, medical Royal Colleges.? If so, please specify.

N/A

SECTION 2: PROJECT DETAILS

2.1 What are the principal research questions posed by this research? Describe briefly, in lay terms, the proposed research project, including step by step methodology, and its potential outcomes and benefits (no more than 250 words).

Rationale:

The condition of urban areas in Nigeria is overwhelming. The dreadful and unsustainable states of these urban areas are as a result of poor infrastructural developments and lack of sustainable project management practices. To curb these challenges, this research project focuses on integrating a variety of sustainability measures into the development and lifecycle management of urban renewal projects in Nigeria.

Research Questions:

1. What are the sustainability policies and practices used in urban development projects in Nigeria?

2. What are the sustainability indicators used in urban development projects and how are they measured and adhered to

3. How can sustainability principles and initiatives be integrated and implemented in urban renewal projects in Nigeria?

Methodology:

The methodology is designed to answer the research questions systematically. Data will be collected through face to face interviews, on-site observations of work settings and project documents. These data collection techniques aim to draw out significant themes arising from the data gathered from interviews with municipal stakeholders (project sponsors, project managers and community members).

Step 1: The interview will be semi-structured. It will be an open-ended face to face interview that will last approximately 45 minutes to an hour. The interview will be interviewee led but structured by the researcher. This method will allow participants to express their personal views about on-going projects.

Step 2: Responses will be manually transcribed by the researcher.

Step 3: The data will be analysed using standard content and thematic analysis.

Outcomes:

The findings of this research will aid the researcher to develop an adaptable framework for managing sustainable urban renewal projects in an emerging economy.

Benefits:

The development of a framework will be beneficial to a number of different social groups. The framework aims to guide policymakers, project managers and other stakeholders of urban renewal projects. The adoption of strategic sustainability principles will benefit community and end-users, improve their social, economic and environmental wellbeing.

2.2 Are any of the following involved? (Please indicate YES or NO)

- The intrusive procedure, e.g. questionnaire, interview, focus group, diary

  (attach a copy of your questionnaire or indicative questions) -YES
- An invasive procedure, e.g. venepuncture, tissue sampling - NO
- Physical contact - No
- Covert observation or covert filming/recording- No
- Children / young people (under 18) - NO

- Vulnerable people (elderly, physically or mentally ill, people with learning difficulties, in care, bereaved, prisoners, other)- NO
- Drugs, medicinal products or medical devices (if YES, complete Annex I) -NO
- Storing human tissue (if YES, complete Annex II) -NO
- Working with sources of ionising radiation (if YES, complete Annex III) -NO

2.3 Has there been a pilot study for this research? (If YES, please give details)

Yes. This research is building on previous research for an MSc project. There is an existing personal communication between the researcher and the municipal project stakeholders.

2.4 What is the proposed start date (i) of the project and (ii) of the fieldwork (if different)?

What is the proposed end date (i) of the project and (ii) of the fieldwork (if different)?

(i) State of project: 29/01/2014 - End of project: 28/01/2017

(ii) State of fieldwork: 12/10/2015- End of fieldwork: 6/11/2015

SECTION 3: PARTICIPATION AND CONSENT

3.1 What are the selection criteria for the proposed participants in the study?

Participants will be selected from a variety of municipal stakeholders, including the key office holders of the Greater Port Harcourt City Development board, project managers of construction companies engaged in the projects and municipalities from the eight communities under development (Port Harcourt, Eteche, Ikwerre, Eleme, Ogu/Bolo, Obio/Akpor, Okirika, and Oyigbo).

3.2 How many participants are to take part?

Fifty-two (52) interviews will be conducted (6 project sponsors, six (6) project manager and five (5) from each of the eight (8) communities.

3.3 How will prospective participants be recruited/contacted and informed about their role in the project? (Give details and attach your participant information sheet, advertisement, email.)

Initially, contact will be made with participants known to the researcher from the previous study. A snowballing methodology will then be applied to recruit new contacts through recommendations from the existing connections.

3.4 Where will the interaction with participants take place? E.g. online, classroom, public facility, laboratory, office, home.

At a place of work and at a mutually convenient time.

3.5 Are any external bodies' premises or resources to be used? Please indicate YES or NO and give details of permission sought.

Yes. Access has already been granted to visit their place of work and project sites.

3.6 What is the expected total duration of participation in the study for each participant? E.g. 20 minutes to complete a questionnaire, an hour for an interview.

Approximately 45 minutes to 1 hour for each interview.

3.7 Is consent to be obtained using the UREC consent template? (Please indicate YES or NO and attach your consent form). If NO, please indicate how consent is to be obtained and attach a copy.

Yes, copy attached

3.8 If children or young people (under 18) are involved, please say how consent will be sought, from both the children / young people and their parents, guardians or those acting *in loco parentis* (e.g. school).

N/A

3.9 Will any payment, incentive or reimbursement of expenses be made? (Please indicate YES or NO and give details, including the amount)

No

SECTION 4: ETHICAL CONSIDERATIONS

4.1 What do you consider are the main ethical issues and risks that may arise in this research? (Refer to the Guidance on Ethical Approval for Research, point 3.1). What steps will be taken to address each issue?

There are no known ethical issues or risk in this study. All interviewees will give their informed consent, participants' identities and privacy will be protected.

4.2 Will personal data, as defined by the Data Protection Act 1998, be collected during the research (Refer to the Guidance on Ethical Approval for Research, point 3.2)? Indicate YES or NO. If YES, give details of how you will deal with that data.

Yes. All personal data will be for the researcher to identify participants during data analysis (in accordance with the consent form, all participants will be anonymous). All personal data and research data from the interview will be saved in a password locked device and will be erased after use.

I undertake to carry out this research under the University's Research Ethics Policy. In the case of a higher degree, I confirm that approval has been given by the Faculty Research Degrees Committee.

5.2 Indicate by "YES" or by ticking one of the statements below:

- I declare there is no financial or other direct interest to me or my Faculty or Directorate arising from this study- YES
- I declare there is a financial or other direct interest to me or my Faculty or Directorate arising from this study (supply details)

I have discussed the project with the applicant, and I confirm that all participants are suitably qualified to undertake this research, and I approve it.

Signature of supervisor (to be signed if the applicant is a student)

Date: 24/10/2015

Print name: Dr Anne-Marie Coles

I have reviewed the project with the applicant, or applicant's supervisor, and I confirm that all participants are suitably qualified to undertake this research, and I approve it.

Signature of UREC representative **Date: 24/10/2015**

Print name:

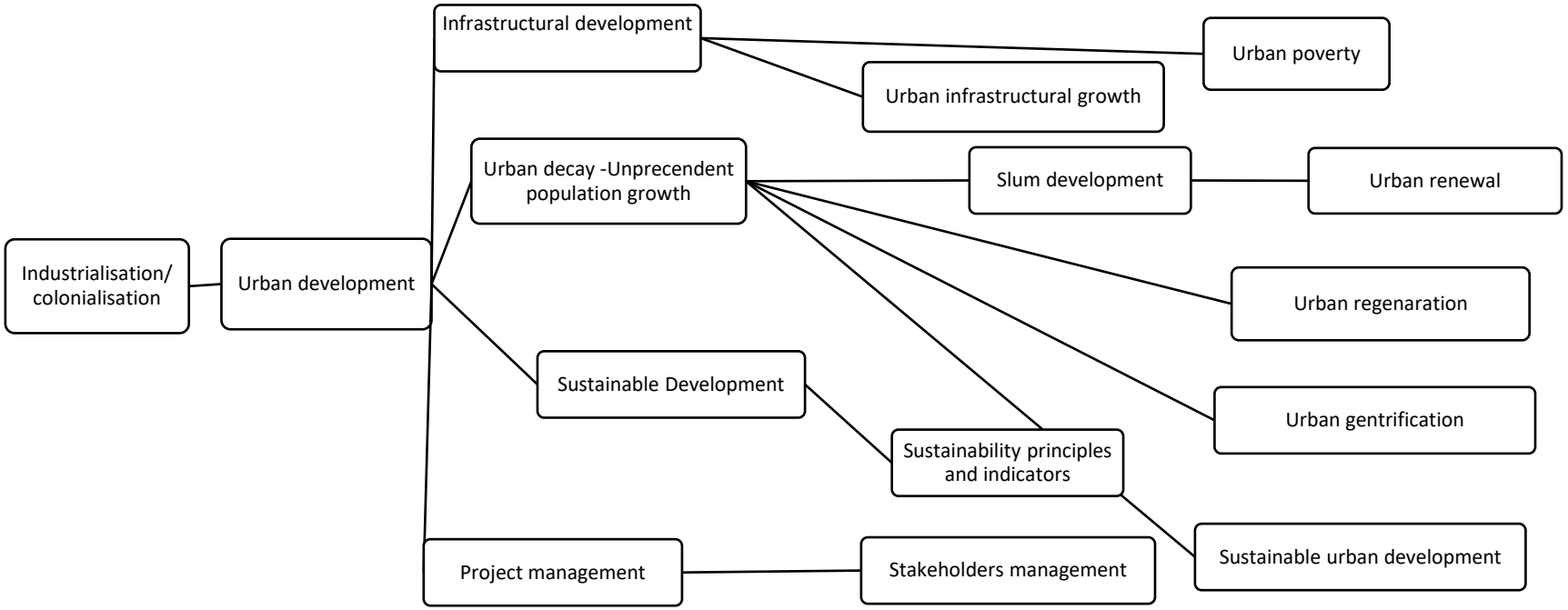
SECTION 5: INSURANCE AND FINANCIAL INTERESTS

5.1 Will this research be covered by an insurance policy (such as your own professional indemnity insurance) other than the University of Greenwich public liability policy? If so, give details.

No

Appendix 7: Search Strategy

The work was carried out using that below search strategy; the keywords used further navigated me to another core element of the study. I utilised databases such as Emerald, EBSCOhost, IEEE/IET, ScienceDirect, World Bank, and several other open sources to look up ongoing projects around Africa. I also used sustainable development databases and adopted hit to select the approach of searching for articles.



Appendix 7: Search Strategy; (Source: Author)